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Chair: Prof. Tebra Mrad S.

Conferences

1. Innovation in Prostate Cancer Treatment: PSMA-Targeted Radioligand Therapy as a Theranostic Strategy

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Abstract: Radioligand therapy (RLT), particularly PSMA-targeted internal radiotherapy, represents a major innovation in the management of advanced prostate cancer. This presentation provides an overview of the evolving landscape of nuclear medicine in prostate cancer, focusing on the historical and current applications of Prostate-Specific Membrane Antigen (PSMA)-targeted imaging and therapy. The integration of molecular diagnostics with targeted radionuclide therapy illustrates the power of the theranostic approach in personalized oncology.

Historical Context and Diagnostic Advances: The field of nuclear medicine has seen a paradigm shift with the development of molecular imaging agents that bind selectively to PSMA, a transmembrane protein overexpressed in prostate cancer cells. Initially, diagnostic efforts relied on radiotracers such as 68Ga-PSMA-11, which demonstrated high sensitivity and specificity in detecting primary and metastatic lesions. More recently, 18F-PSMA tracers have emerged, offering logistical advantages such as longer half-life, improved image resolution, and broader availability due to centralized production.

Therapeutic Applications: Following the success of PSMA-targeted imaging, therapeutic agents have been developed by labeling PSMA ligands with beta-emitting radionuclides like Lutetium-177 (177Lu), and more recently, alpha-emitters such as Actinium-225 (225Ac). 177Lu-PSMA therapy has demonstrated promising results in patients with metastatic castration-resistant prostate cancer (mCRPC), particularly those who have exhausted conventional treatment options. Clinical trials (VISION, TheraP) have shown improved progression-free survival and quality of life, with manageable toxicity profiles.

The use of 225Ac-PSMA, though still largely in early-phase trials and compassionate use programs, offers a potential therapeutic alternative in cases of resistance to beta-emitting therapies, due to its high linear energy transfer and potent cytotoxic effect on micrometastatic disease.

Theranostics: A Personalized Approach

The concept of theranostics—the seamless integration of diagnostic imaging and therapy using the same molecular target—has become a central theme in modern nuclear oncology. In prostate cancer, the ability to visualize PSMA expression through PET imaging and to subsequently deliver targeted radiotherapy to the same sites ensures a high degree of precision and individualized care.

Guidelines and Recommendations: Recent guidelines from both the European Association of Urology (EAU) and the American Society of Clinical Oncology (ASCO) endorse PSMA PET/CT as a preferred modality for staging high-risk prostate cancer and for detecting biochemical recurrence. In the therapeutic setting, PSMA-targeted RLT is now recognized as a valid treatment for mCRPC patients who meet PSMA PET positivity criteria.

Conclusion: PSMA-targeted radioligand therapy exemplifies the convergence of diagnostics and therapeutics in oncology. Its implementation not only enhances imaging and staging accuracy but also provides new therapeutic opportunities for patients with advanced prostate cancer. Continued research, guideline integration, and access to theranostic tools will be key to optimizing outcomes in this patient population.

2. Surgical Management of Skull Base Meningiomas: A Retrospective Analysis from the Neurosurgery Department of Monastir (2015–2024)

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Abstarct: A unique subgroup of intracranial tumors, skull base meningiomas are distinguished by their intricate anatomical locations and difficult surgical procedures. The Neurosurgery Department of Monastir's experience over a nine-year period is described in this retrospective study, with particular attention to the clinical presentation, radiological characteristics, surgical techniques, and Optimizing patient care and functional outcomes required a multidisciplinary approach that included adjuvant stereotactic radiosurgery, microsurgical techniques, and advanced imaging.

Introduction: About 30% of all intracranial meningiomas occur at the base of the skull,making them the second most common primary brain tumor after gliomas. These tumors, which were first reported by Harvey Cushing in 1922, exhibit a female predominance (sex ratio ~3:2) and arise from arachnoid cap cells. Skull base meningiomas are frequently benign and slow-growing, but because they are close to important neurovascular structures, they can cause serious morbidity.

Materials and Methods: 49 patients with skull base meningiomas were assessed between 2015 and 2024. Forty-six of the cases involved surgery. The main diagnostic and planning tool was MRI. Surgical approaches were chosen based on tumor location, size, and anatomical relationships. Outcomes were classified using the Simpson grading system.

Results: Resection by Surgery (n = 46): Six cases in Simpson Grade I Grade II Simpson: 27 cases Grade III Simpson: 11 cases Simpson Grade IV: two instances. Recurrence Rate: 12 patients (26%) Reoperations: 5 cases, Postoperative Mortality: 5 patients (10.8%) Nonoperated Cases: Three patients were referred for radiation therapy due to involvement of the cavernous sinus. Surgical Techniques by Site: Olfactory Groove: Bifrontal craniotomy or pterional Pterional, subfrontal, or endoscopic transsphenoidal for tuberculum sellae meningiomas.Sphenoid Wing: Clinoidectomy combined with orbitozygomatic or extended pterional Petroclival Region: combined transpetrosal, anterior petrosal, or

retrosigmoid
Tentorial Region: subtemporal or suprarebellar methods Cavernous Sinus: Pterional or orbitozygomatic, frequently accompanied by adjuvant radiosurgery and subtotal resection The extended retrosigmoid approach to the cerebellopontine angle Depending on the location of the tumor, the foramen magnum may be approached transcondylarly or posterolaterally.
Discussion: When it is safe, complete resection continues to be the main goal. Skull base meningiomas, however, frequently necessitate striking a balance between functional preservation and tumor control. Subtotal resection followed by stereotactic radiosurgery (SRS) is becoming more and more popular in complex cases. Vascular compromise and deficits in cranial nerves are the primary causes of surgical morbidity. Results are significantly impacted by the location of the tumor, the experience of the surgeon, and auxiliary technologies (such as exoscopes and neuronavigation).
Conclusion: Meningiomas of the skull base present considerable surgical difficulties. For residual or inoperable lesions, our institution's experience supports a customized, anatomy-based surgical approach combined with radiotherapy. It is possible to achieve satisfactory tumor control and neurological preservation with careful planning and contemporary techniques.

3. The Role of Surgery in Locally Advanced Prostate Cancer

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Abstract: Locally advanced prostate cancer lies at the interface between localized and metastatic disease. While non-surgical treatments have traditionally dominated its management, the role of radical prostatectomy has gained increasing interest. This review explores current evidence on the oncologic and functional outcomes of surgery in this context, discusses patient selection, and highlights the importance of a multimodal strategy.
Introduction: Locally advanced prostate cancer, defined by tumor extension beyond the prostatic capsule (clinical stages T3–T4), represents an intermediate form of the disease between localized and metastatic cancer. Historically managed with radiotherapy and androgen deprivation therapy (ADT), the place of surgery is now being reconsidered. Radical prostatectomy, when integrated into a multimodal treatment approach, can offer oncological benefits in carefully selected patients.
Materials and Methods: This article is a narrative review of the current literature on the role of radical prostatectomy in the management of locally advanced prostate cancer. We analyzed data from clinical trials, retrospective series, and current clinical guidelines to assess outcomes and recommendations.
Results
Heterogeneity and Staging: Locally advanced prostate cancer is a heterogeneous entity. Accurate staging is often only possible after histopathological examination of the radical prostatectomy specimen, revealing tumor stages ranging from pT2 pN0 to pT4 pN1 (1). In 27% of cases, clinical staging overestimates disease severity, with final pathology revealing organ-confined (pT2) disease (2).
Oncologic Outcomes: Studies (3–4) have shown that the oncologic outcomes of radical prostatectomy are comparable to those of radio-hormonal therapy. Surgery may provide better local control and facilitate subsequent adjuvant treatments in case of recurrence.
Functional Outcomes and Complications: Radical prostatectomy is associated with higher rates of erectile dysfunction and urinary incontinence. Conversely, radiotherapy combined with ADT often leads to increased gastrointestinal toxicity. However, functional and oncological results tend to be better when surgery is performed in high-volume centers and in younger, healthier patients (5–6–7).
Guidelines and Multimodal Approach: Professional guidelines support the use of radical prostatectomy as part of a multimodal approach for high-risk prostate cancer. Extended pelvic lymph node dissection is recommended not for survival improvement, but for accurate staging. Adjuvant therapy is not routinely indicated postoperatively; salvage radiotherapy is recommended in the case of biochemical recurrence (8-9).
Conclusion: Surgery has a valid and increasingly recognized role in the management of locally advanced prostate cancer. Its integration into a personalized, multimodal strategy—discussed in a multidisciplinary setting—is essential. Patient selection, tumor characteristics, and comorbidities must be carefully considered. Further prospective trials are needed to better define the long-term outcomes and precise indications for radical prostatectomy in this patient population.

Posters:

Cerebral Tumors

1. Case report of two patients with intramedullary primitive ependymoma

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Aim: Intramedullary primitive ependymomas are rare tumors characterized by slow progression. This study explores the evolutionary aspects and prognostic factors of survival and local control in a cohort of 2 patients treated at the Farhat Hached Radiotherapy Department in Sousse. We propose a therapeutic approach based on prognostic factors and a review of the literature.
Materials and Methods: Two patients were included in our study, a 35-year-old woman and a 58-year-old man. Neuropathic pain and neurological deficits were the most prominent symptoms. The average duration of symptoms before diagnosis was 6 months.
A spinal MRI was performed for both patients. For the first patient: an intradural expansive process involving the L2 and L3 levels, compressing the cauda equina. Initially suggestive of a meningioma, biopsy revealed an ependymoma with inflammatory changes.the second patient had a compressive epidural lesion spanning from C6 to D4, measuring 9 cm in height and 1 cm in diameter. Biopsy confirmed an anaplastic grade 3 ependymoma.
Surgery was incomplete in both cases. All patients received postoperative irradiation targeting the tumor bed.
Results: The patient diagnosed with grade 3 ependymoma underwent conventional fractionated spinal radiotherapy at a dose of 44 Gy, yet did not show any clinical improvement. The patient was referred to the oncology department for chemotherapy treatment.
A planned course of radiotherapy totaling 30 Gy delivered in 10 fractions was prescribed for the patient experiencing cauda equina compression. However, he only received 8 fractions of 2 Gy each.Significant clinical improvement in pain and lower limb motorfunction was observed. However, the patient experienced episodes of confusion, leading to a brain MRI revealing a lesion consistent with ependymoma. Unfortunately, the patient passed away before completing radiotherapy.
In conclusion, our study underscores the variable clinical course and challenges in managing intramedullary ependymomas. Despite treatment efforts, incomplete resection and aggressive tumor behavior pose significant hurdles. Further research is needed to refine therapeutic approaches and improve outcomes for these patients.

2. Cerebellar metastasis unveiling colon carcinoma: Case report and review of the literature

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Introduction: Brain metastasis from colorectal cancer (CRC) represents a rare entity with an incidence ranging from 0.6% to 3.2% located especially in the supratentorial compartment. However, cerebellar metastasis is even less frequently reported, with only a few reported cases in the English literature.
Methods and results: We present the case of a 54-year-old male who referred to the emergency department with headache, vertigo, nausea, and vomiting. Brain Imaging revealed a left cerebellar mass. The patient underwent a Gross total resection via a suboccipital approach. Histopathological exam confirmed the diagnosis of a cerebellar metastasis of a colorectal adenocarcinoma. The patient was diagnosed stage IV well-differentiated sigmoid adenocarcinoma with cerebellar, hepatic and pulmonary metastasis. Therefore, he was started on palliative chemotherapy.
Conclusion: Given the rarity of brain metastasis from CRC, its optimal treatment approach remains a topic of debate.

3. Clinical, Radiological, and Histopathological Features of Cerebral Lymphomas

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Introduction: Cerebral lymphoma (CL) is a rare entity, accounting for 4–6% of brain tumors. It can be primary or secondary and presents with a polymorphic clinico-radiological profile. This study aims to establish the correlation between clinical and radiological characteristics of cerebral lymphomas.
Methods: We conducted a monocentric retrospective study including patients operated on for CL in the Neurosurgery Department of CHU Sfax over a 15-year period from January 2009 to December 2023.
Results: A total of 40 patients were included, with an annual incidence of 3 cases. The median age was 49 years, with a male predominance. Nine patients were immunocompromised. Primary CL was diagnosed in 38 cases. The clinical presentation was non-specific, predominantly marked by intracranial hypertension symptoms (85.5%). Imaging findings were variable, with the most common presentation being supratentorial, hyperdense lesions with homogeneous contrast enhancement on CT (>90%). On MRI, lesions appeared hypointense or isointense on T1, hyperintense on T2 and diffusion-weighted imaging, with spectroscopy showing decreased NAA and increased choline, and perfusion analysis demonstrating a first-pass curve crossing the baseline. Several atypical patterns were also observed. Seven patients (17.5%) underwent emergency surgery, 5 (12.5%) had delayed urgent surgery, and 28 (70%) were scheduled electively. Stereotactic biopsy was performed in 4 cases (10%). Histology confirmed large B-cell administered to 26 patients (65%). Long-term favorable outcomes were reported in 18 patients, significantly associated with immune status and chemoradiotherapy. The mortality rate was 17.5%, with a statistically significant correlation with immune deficiency and consciousness impairment.
Conclusions: Diagnosing CL remains a daily challenge due to its polymorphic clinico-radiological presentation. To avoid diagnostic and therapeutic delays, CL should be considered in any adult presenting with MRI findings of hypointense or isointense lesions on T1, hyperintensity on T2 and diffusion, decreased NAA and increased choline on spectroscopy, and a perfusion curve crossing the baseline.

4. Clinicopathological significance of EGFRvIII expression in gliomas: A single-center Tunisian cohort study

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Introduction: Gliomas are the most common malignant brain tumors, with glioblastoma (GBM) being the most prevalent and fatal form in adults. Their molecular landscape has reshaped tumor classification, prognosis, and treatment, leading the 2021 WHO tumor classification to adopt molecular criteria. IDH-wildtype GBM is defined by at least one of three genetic alterations: Telomerase reverse transcriptase (TERT) promoter mutation, Epithelial growth factor (EGFR) amplification, or the simultaneous gain of chromosome 7 and loss of chromosome 10. Among these, the EGFRvIII mutation, a constitutively active variant expressed in tumor cells, drives growth and resistance to apoptosis. This study evaluates the frequency of EGFRvIII expression in glial tumors and its significance regarding tumor grade, histological subtype, and outcomes in a Tunisian cohort.
Methods: This retrospective study involved 95 glial tumor cases diagnosed between 2008 and 2022. Tumor samples were analyzed by immunohistochemistry for EGFRvIII expression. Clinicopathological parameters, including tumor grade, histological type, recurrence, and survival, were evaluated for associations with the EGFRvIII mutation.
Results: EGFRvIII expression was found in 18.7% of adult gliomas and 13.5% of pediatric cases. A significant correlation was observed between EGFRvIII expression and tumor grade ($p = 0.000$) as well as histological type ($p = 0.002$). Survival analysis did not reveal significant prognostic impact in either adult or pediatric patients.
Conclusion: The EGFRvIII mutation is a significant molecular alteration in gliomas, especially in glioblastomas, where it is linked to higher tumor grades. Although its prognostic value remains uncertain, its tumor-specific expression makes it a highly promising therapeutic target. Further additional studies are required to clarify its role in glioma progression and ultimately improve patient outcomes.

5. Dorsal Meningioma in a Patient with Multiple Sclerosis: Coincidence or a Potential Association?

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Introduction: The coexistence of multiple sclerosis (MS) and central nervous system (CNS) tumors has been reported in over 30 cases in the literature, but meningiomas have been rarely observed in patients with MS. Their occurrence has been noted, particularly during treatment with immunomodulatory drugs such as interferon beta. This case report aims to contribute to the ongoing discussion regarding the potential link between MS, meningiomas, and immunomodulatory therapy.
Methods: We present the case of a female patient with a history of relapsing-remitting multiple sclerosis (MS) treated with interferon beta, who was diagnosed with a dorsal meningioma. The case, managed at the Department of Neurosurgery in Sfax, is discussed alongside a review of the literature to explore the possible association between MS, meningiomas, and immunomodulatory treatment.
Results: The patient is a 44-year-old woman with a 12-year history of MS, diagnosed in 2012 following a visual relapse. She was treated with interferon beta and experienced two further relapses characterized by gait instability, four years apart. Currently, she presents with a sensation of heaviness in the right lower limb and urgency. Clinical examination revealed right-sided Brown-Séquard syndrome. A brain and spinal MRI revealed a dorsal meningioma at the D8-D9 level.electively.
Conclusion: Although the coexistence of MS and meningiomas is rare, our case report and literature review suggest that there is insufficient

evidence to establish a definitive relationship between meningioma development and interferon beta therapy. The concurrence of these conditions is likely coincidental, although a potential link cannot be entirely ruled out. Further research is needed to better understand this association.

6. Epidemiological and Histological Profile of Primary Cerebellar Tumors in Southern Tunisia

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Introduction: Primary cerebellar tumors (PCTs) encompass a wide histological diversity and are predominantly described in children, with lower incidence in adults. Understanding their epidemiological profile is crucial for guiding diagnosis and ensuring appropriate management. To date, no Tunisian study has focused on the epidemiological characteristics of these tumors. This study aims to analyze the epidemiological features of PCTs while considering their different histological subtypes and to compare our findings with existing literature, focusing on the most common entities.
Methods: A retrospective study was conducted on cases of PCTs diagnosed at the Anatomopathology Department of HBS over an 11-year period (January 2010 – December 2020). Epidemiological and histopathological data were collected for each patient.
Results: A total of 47 cases were included, with a mean age of 19 years (range: 1–74 years). Pediatric cases (<18 years) accounted for 46.8%, while 53.2% were adults. Tumor location was hemispheric in 31 cases (65.9%), vermian in 9 cases (19.2%), and vermiolobar in 7 cases (14.9%). The most common histological subtype was medulloblastoma (MB) (49%), followed by pilocytic astrocytoma (23.4%) and hemangioblastoma (17.1%). Rare histological subtypes included IDH-mutant anaplastic astrocytoma, glioblastoma NOS, atypical teratoid/rhabdoid tumor (ATRT), lymphoma, and cerebellar ganglioglioma, each representing 2.1% of cases. Histological distribution varied by age: In pediatric patients, MB was the most common subtype (59.1%), followed by pilocytic astrocytoma (36.4%). In adults, MB remained the most frequent (40%), followed by hemangioblastoma (8 cases) and pilocytic astrocytoma (3 cases).
Conclusions: This study confirms the heterogeneity of PCTs. Identifying their epidemiological characteristics provides a valuable diagnostic tool. Future national multicenter studies would enhance the understanding of the epidemiological profile of PCTs in Tunisia.

7. Extensive Spinal Extraventricular Neurocytoma: A Rare Case and Management Challenges

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Introduction: Neurocytomas are typically benign, slow-growing tumors most commonly found within the ventricular system of the brain. Extraventricular neurocytomas (EVNs) represent a rare subset, with spinal involvement being exceedingly uncommon. These tumors can present significant diagnostic and therapeutic challenges.
Methods: We report a case of a neurocytome with extensive involvement at the cervico-dorsal and lumbar levels, managed in our Neurosurgery Department in Sfax. A literature review was conducted to highlight the clinical presentation and management of similar cases.
Results: The patient, a 21-year-old male, presented with progressive weakness, sensory disturbances, and urinary incontinence. MRI revealed a recurrence of the tumor, characterized by an extensive intradural, extramedullary lesion extending from the cervico-dorsal region to the lumbar spine. The mass appeared isointense on T1-weighted imaging and hyperintense on T2-weighted sequences, with heterogeneous enhancement post-contrast. The patient underwent staged surgical resections aimed at tumor debulking while preserving neurological function. Histopathological examination confirmed the diagnosis of neurocytoma, with significant postoperative improvement in the patient's condition.
Conclusion: This case underscores the importance of a multidisciplinary approach involving neurosurgery, radiology, and pathology in managing neurocytomas with extensive spinal involvement. While complete resection may not always be feasible, collaborative efforts can enhance diagnostic accuracy and optimize therapeutic outcomes. Further research is needed to better understand the behavior of these tumors and improve management strategies.

8. Intracranial grade II meningiomas: prognostic factors and management – a series of 30 cases

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Introduction: Grade II meningiomas are rare tumors, accounting for 3% to 7% of all intracranial meningiomas according to various studies. Their management remains challenging for clinicians due to their aggressiveness and/or tendency to recur, and there is no clear consensus on their optimal treatment.
The aim of this study was to analyze the epidemiological, clinical, radiological, and histopathological characteristics of these tumors, evaluate the quality of their management, and identify key prognostic factors to propose a therapeutic algorithm.
Methods: We conducted a retrospective, bicentric study including 30 cases of Grade II meningiomas operated on between 2012 and 2017 at the Neurosurgery Departments of Habib Bourguiba University Hospital and the Center for Trauma and Severe Burns in Ben Arous. For each patient, we collected epidemiological, clinical, radiological, and histopathological data, along with details of their management, and identified key prognostic factors.
Results: Our series included 30 cases of Grade II meningiomas, with a female predominance and an average patient age of 56.2 years. The clinical presentation was dominated by headaches and neurological deficits. Brain MRI allowed assessment of tumor characteristics, anatomical relationships, and the site of attachment. The most frequent location was the convexity, observed in 60% of cases. Complete tumor resection was achieved in 93% of cases. Histopathological examination confirmed the diagnosis of high-grade meningioma (WHO Grade II, 2007 classification), with a predominant atypical subtype.
All patients underwent postoperative imaging follow-up, with an average follow-up duration of 47.3 months. Recurrence was observed in six patients (20%). A total of four patients (13.3%) received radiotherapy. The overall mortality rate was 20% (six deaths). The overall survival and recurrence-free survival rates were 86.7% and 73.3%, respectively. Preoperative good clinical status and female sex were identified as favorable prognostic factors, whereas heterogeneous contrast enhancement was associated with a poorer prognosis.
Conclusion: Grade II meningiomas represent an intermediate category between Grade I meningiomas, which are generally benign with low recurrence rates, and Grade III meningiomas, which are frequently recurrent. The management of Grade II meningiomas remains complex, from preoperative diagnosis to postoperative follow-up and the timely indication of adjuvant treatments. While recurrence is common, it is not systematic, highlighting the need for an individualized therapeutic strategy. Optimal management should include accurate diagnosis, maximization of surgical resection, and tailored treatment of recurrences, with surgical reintervention and adjuvant radiotherapy discussed on a case-by-case basis in multidisciplinary tumor board meetings.

9. Intradural Extramedullary Melanocytic Tumor: A Case Report

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Introduction: Intradural extramedullary melanocytic tumors are rare lesions of the central nervous system, originating from leptomeningeal melanocytes. Their diagnosis and therapeutic management remain challenging due to their rarity and heterogeneous clinical course.
Objective: To describe the diagnostic, therapeutic, and clinical aspects of a case of dorsal intradural extramedullary melanocytic tumor managed in our department.
Materials and Methods: We report a clinical case treated at the Radiation Oncology Department of Farhat Hached Hospital in Sousse, Tunisia. The patient underwent surgical resection followed by adjuvant radiotherapy as part of a multidisciplinary approach.
Case Presentation: A 43-year-old man presented with progressive heaviness of the lower limbs, evolving over two months, leading to complete immobility and sphincter dysfunction. Clinical examination revealed flaccid paraplegia and absent osteotendinous reflexes. MRI showed an intradural extramedullary oval mass at the D11 level, measuring 31 mm in height and 15 × 13 mm in axial diameter. The lesion appeared slightly hyperintense on T1-weighted images and hypointense on T2, with post-gadolinium enhancement and signal voids suggestive of intralesional hemorrhage. Surgical laminectomy from D10 to D12 allowed for subtotal resection of a highly hemorrhagic, black-colored tumor strongly adherent to the spinal cord. Histopathological analysis confirmed an intermediate-grade melanocytic tumor with a Ki-67 proliferation index of 7%. Postoperatively, the patient showed neurological improvement with partial motor recovery (4/5 strength bilaterally) and ongoing rehabilitation for urinary dysfunction. Follow-up MRI revealed a residual tumor at D11 measuring 7.5 × 7.5 mm axially and 17 mm in height. There was no evidence of distant metastasis.
Adjuvant radiotherapy was delivered to the D10–D12 levels using 3D conformal technique, with a total dose of 44 Gy in 22 fractions.
Conclusion: Intradural extramedullary melanocytic tumors require a multidisciplinary strategy combining maximal safe surgical resection and adjuvant radiotherapy in cases of residual disease. Early diagnosis and coordinated care are essential to improve functional outcomes and long-term control.

10. Is Observation Enough After Gross Total Resection of WHO Grade II Meningiomas, or Is Adjuvant Radiotherapy Warranted?

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Introduction: Atypical meningiomas (AM) completely resected (Simpson I–III) represents an intermediate-risk group. Despite gross total resection, the recurrence rate remains significantly high, raising ongoing debate about the need for adjuvant radiotherapy (ART). The role of postoperative radiotherapy remains controversial. This study aims to review current data on adjuvant radiotherapy in this context, highlighting prognostic factors and treatment modalities.
Methods: We conducted a literature review using PubMed with keywords: "postoperative," "adjuvant radiotherapy," and "grade II meningioma." Articles focusing on adjuvant treatment strategies after surgical resection of WHO grade II meningiomas were analyzed.
Results: In the NRG/RTOG 0539 study, intermediate-risk patients were defined as those with recurrent grade I meningiomas or newly diagnosed, gross totally resected AM. These patients received ART at a uniform dose of 54 Gy. Among the 52 patients analyzed, 36 (69%) had AM, and 16 (31%) had recurrent grade I tumors. The 3-year actuarial local failure rate was 4.1%, with no reported grade 3 toxicities. These findings support the use of ART in both settings. The benefit of ART after gross total resection of AM is currently being evaluated in the randomized NRG-BN003 trial (NCT03180268), comparing 54 Gy versus observation. Similarly, the ROAM/EORTC-1308 trial (ISRCTN71502099) is ongoing to compare ART to observation in the same setting. Additionally, a large retrospective study of 149 patients with newly diagnosed AM treated between 2000 and 2012 further supports the role of ART. Gross total resection (GTR) was achieved in 98 patients and subtotal resection (STR) in 51 patients. ART was administered in 35% of cases. After a median follow-up of 74.2 months, 31% of patients experienced progression, with a median time to recurrence of 32.4 months. ART was associated with significantly improved local control ($p = 0.0183$) and progression-free survival (PFS) ($p = 0.0034$) in STR patients. In the GTR group, ART showed a trend toward improved PFS ($p = 0.0669$). Multivariate analysis identified age, tumor size, and STR as risk factors for worse PFS, while ART was independently associated with better PFS. Of the 46 patients who relapsed, only 22 achieved long-term control after salvage therapy, and 5 experienced malignant transformation to WHO grade III.
Conclusion: While awaiting results from prospective randomized trials such as ROAM and NRG-BN003, adjuvant radiotherapy is currently encouraged due to its demonstrated benefit in progression-free survival (PFS), particularly in younger patients. The use of advanced techniques such as IMRT helps minimize toxicity, supporting its consideration in a multidisciplinary treatment strategy.

11. Long Survival of Cranial vault Ewing's sarcoma : a case report.

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Abstract: Ewing's sarcoma is a malignant tumor that mainly affects young patients. It represents 3% of malignant tumors of the child. Cranial localization is extremely rare representing less than 1% of all localizations.
We report a case of a 10-year-old girl who presented with an intracranial hypertension syndrome with left parietal mass of progressive installation. The X-ray skull showed a lytic lesion with irregular margins involving the left parietal bone. Brain magnetic resonance imaging revealed extensive parietal bone destruction involving both the inner and outer tables. The girl was operated in emergency. Histological examination concluded to Ewing's Sarcoma. The resection was incomplete (R1). The girl received induction's chemotherapy. The evaluation showed no abnormalities. She received consolidation's chemotherapy with concomitant local radiation therapy. Currently, the girl is in complete remission after sevenyears follow up. But she suffers greatly from alopecia.

12. Malignant transformation of dorsal schwannoma: a case report and review of the literature

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***Introduction**:* Malignant schwannomas are uncommon primary tumours of nerve sheath origin. They are rarely found within the spine and spinal canal, and little is known about their management in this unusual location.
Methods: We report the case of a 31-year-old patient who presented to our department with heaviness in both lower limbs. Examination revealed spastic paraparesis and a T7 sensory level. Imaging identified an intra-dural extramedullary tumor lesion at the D7 level, with extension into the spinal canal and compression of the spinal cord. A

subtotal tumor resection was performed via a posterior approach. Histopathological examination confirmed the diagnosis of a benign schwannoma.
Results: The patient was readmitted four months later due to neurological deterioration caused by tumor recurrence, which had progressed to involve the D7 and D8 vertebral bodies, with mediastinal extension and pulmonary invasion. A biopsy was performed, and histological examination confirmed malignant transformation. The patient underwent adjuvant radiotherapy, but this did not result in significant clinical improvement. Unfortunately, the patient passed away a year later from acute respiratory failure.
Conclusion: Benign spinal schwannomas with malignant transformation are exceptional. The diagnosis should be raised in the setting of an abnormal tumor growth and a more aggressive behavior. The prognosis remains poor in the majority of cases despite multimodal treatment.

13. Medullary Metastasis of Pineoblastoma: A Rare Case of Leptomeningeal Spread

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Introduction: Pineoblastoma is a rare and aggressive pineal parenchymal tumor, constituting approximately 15% of all pineal region tumors. These malignancies often invade adjacent structures and frequently disseminate through cerebrospinal fluid (CSF). We report a case of pineoblastoma in a young adult, complicated by medullary metastasis due to leptomeningeal spread.
Methods: We report the case of a young adult patient with a medullary metastasis of pineoblastoma, managed at the Department of Neurosurgery in Sfax. The case is discussed in detail, with a review of the literature focusing on the pathogenesis, diagnostic challenges, and treatment approaches for pineoblastoma.
Results: A 28-year-old man with a history of pineoblastoma, treated by subtotal resection and postoperative radiochemotherapy, presented eight years later with paraparesis, bladder and sphincter dysfunction, and sensory disturbances. Cerebrospinal MRI revealed diffuse leptomeningeal involvement and a compressive intramedullary tumor at the D8 level, without local recurrence of the primary tumor. The patient underwent partial resection of the tumor between D7 and D9. Histopathology confirmed metastasis from the original pineoblastoma.
Conclusion: Pineoblastomas have a high propensity for CSF-mediated metastasis, making it crucial to assess spinal involvement in patients with primary intracranial lesions. Despite aggressive treatment, including surgery and radiochemotherapy, prognosis remains poor due to the tumor's aggressive nature and high mortality rate. Further research is needed to improve management and outcomes for patients with pineoblastoma.

14. Metastatic brain tumors from a primary colorectal cancer: A 4-Case-Report

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Introduction: Metastatic tumors represent the most frequent etiology of intracranial malignant neoplasms. Their origin from the gastrointestinal tract is an exceptionally rare occurrence
Matériels et méthodes: We conducted a retrospective monocentric study in radiation oncology department of Farhat Hached Hospital, Sousse between 2001 and 2025 including 4 patients managed for brain metastases (BM) secondary to a primary colorectal carcinoma.
Résultats: Metastatic cerebral tumors (MC) occurred at an average age of 60.7 years (range: 48-68 years), with a male-to-female sex ratio of 3:1. The primary cancer was either a right colon cancer (n=1) or sigmoid colon cancer (n=3). The MC were isolated in one case (n=1) or associated with concomitant metastases in the liver (n=3) or lungs (n=1).
The presenting symptom for all patients was a syndrome of intracranial hypertension. The diagnosis was established by cerebral CT scan in all four patients, with one patient also receiving a cerebral MRI. The MC were synchronous in one case and metachronous in three cases, with an average delay of 26 months (range: 0-84 months) until their appearance. They were unique in two cases (n=2) and multiple in two cases (n=2). The average number of lesions was 3 (range: 1-6), with an average size of 29 mm (range: 20-41 mm). Regarding treatment, all patients underwent whole-brain radiation therapy (WBRT). Three patients received a dose of 20 Gy in 5 fractions, and one patient received 30 Gy in 10 fractions. The patient with rectosigmoid junction colon carcinoma also had macroscopically complete surgical excision prior to radiotherapy. After an average follow-up of 2.25 months (range: 1-3 months), three patients had died. The fourth patient completed WBRT one week prior, with average tolerance reported.
Conclusion: Brain metastases (BM) secondary to a primary malignancy of the gastrointestinal tract, while infrequent, are commonly associated with synchronous metastatic dissemination and portend a poor overall survival. Contemporary radiotherapy modalities, including stereotactic radiotherapy (SRT), can enhance local tumor control; however, a demonstrable impact on overall survival remains limited

15. Mgmt methylation and its prognostic significance in glioblastoma: lessons from a case series

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Introduction: O6-methylguanine-DNA methyltransferase (MGMT) promotermethylation has been identified as a key predictive biomarker for response totemozolomide (TMZ) chemotherapy in glioblastoma (GBM).
Methods: A retrospective analysis was conducted on patients diagnosed withglioblastoma at the Neurosurgery Department of Fattouma Bourguibaof Monastir between December 2019 and January 2024. MGMT promotermethylation status was determined using methylation-specific PCR. Clinical parameters, including age, sex, extent of resection, treatment regimen, andoverall survival (OS), were collected and analyzed.
Results: Among 14 patients included in the study, 30% exhibited MGMTpromoter methylation, while 70% had unmethylated MGMT. The median OS formethylated MGMT cases was 14 months compared to 8 months forunmethylated cases. Patients with MGMT methylation showed better responseto TMZ, with prolonged progression-free survival (PFS) and overall survival.
Conclusion: MGMT methylation serves as a pivotal biomarker in glioblastoma,influencing treatment response and survival. Incorporating molecular profilinginto routine GBM management may enhancepersonalized treatment strategies,ultimately improving patient outcomes.

16. Paragangliomas: Where Does Radiotherapy Fit in the Treatment Strategy?

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Introduction: Paragangliomas are rare neuroendocrine tumors that present both diagnostic and therapeutic challenges. While surgery remains the standard of care, radiotherapy is increasingly being considered as an adjunct or alternative treatment, particularly in

unresectable or recurrent cases. This retrospective study aims to evaluate the role of radiotherapy in the management of paragangliomas by analyzing its effectiveness, indications, and clinical outcomes.
Materials and Methods: This retrospective study included five patients with benign cervical paragangliomas treated in the Radiation Oncology Department at Farhat Hached University Hospital, Sousse, between 2019 and 2024. Primary end points were treatment response (tumor size reduction, disease control), adverse events, progression-free survival (PFS), and overall survival (OS).
Results: Five patients were included, with a median age of 54 years (range: 43–73), and a female predominance (60%; 3 women, 2 men). No relevant medical history was reported, suggesting sporadic forms. Tumor location was carotid body in 60% of cases, tympanojugular in 20%, and right jugular extending to the cerebellopontine angle in 20%, all unilateral. Clinical presentation was variable, predominantly painless cervical masses (60%), followed by compressive neurological symptoms such as hypoacusis (40%), facial nerve palsy (20%), and dysphagia with aspiration (20%). Diagnosis was primarily based on MRI and CT, which assessed tumor size (mean diameter 4.4 cm; range: 3–6 cm) and local extension. Catecholamine testing was performed in one patient and was negative. No histological confirmation was obtained due to biopsy-related risks. Management consisted exclusively of intensity-modulated radiotherapy (IMRT), given the anatomical complexity and surgical contraindications. Administered doses ranged from 50 to 54 Gy, delivered over a mean of 26 fractions (2 Gy per fraction; range: 25–27). Treatment was generally well tolerated, with mainly grade I–II adverse effects: radiodermatitis (40%), xerostomia (40%), mucositis (40%), and transient dysphagia (20%). One late complication, actinic keratosis, was observed in a single patient. After a median follow-up of 24 months, with regular clinical and radiological assessments (MRI or angio-CT), no tumor progression was observed in any patient.
Conclusion: IMRT appears to be a safe and effective option for the management of unresectable, recurrent, or anatomically complex cervical paragangliomas. It provides excellent local control with acceptable toxicity. Long-term follow-up is essential to monitor stability and detect potential late effects. Multidisciplinary evaluation remains key in tailoring individualized treatment strategies.

17. Pleiomorphic xanthoastrocytoma: case series and review of literature

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Introduction: Pleomorphic xanthoastrocytoma (PXA) is a rare low grade glial neoplasm of the central nervous system accounting less than 1% of all astrocytomas, typically affecting children and young adults
Methods: We report two cases of PXA:
- A 23-year-old female was presented to the emergency department with repeated episodes of sickness followed by a short period of confusion and difficult speech. A cerebral MRI was conducted revealing an extra-axial dura-based lesion in the right temporal fossa.
- A 24-year-old male, with no medical history, was presented to the emergency department with a first episode of generalized tonico-clonic seizure. A cerebral MRI revealing a left frontal intra-axial lesion, with solid and cystic components.
Results: Both patients underwent gross total resection of their lesion. The postoperative course was uneventful. Histopathological diagnosis was PXA.
Conclusion: PXA is a rare, typically low-grade brain tumor that most commonly affects young individuals. Early diagnosis and complete surgical resection remain critical for optimal patient outcomes. However, high-grade PXAs may exhibit aggressive behavior, necessitating in some cases, adjuvant therapy.

18. Primary Intramedullary High-Grade Gliomas: Clinical Presentation, Surgical Management, and Outcomes

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Introduction: Primary intramedullary spinal high-grade gliomas (HGGs) are rare and aggressive tumors of the central nervous system, with a poor prognosis.
Their occurrence in various spinal cord regions presents unique diagnostic and therapeutic challenges
This study aims to describe the clinical presentation, diagnostic approach, surgical management, and outcomes of patients with primary intramedullary spinal high-grade gliomas at various spinal levels
Methods: A retrospective descriptive analysis was conducted on all cases of high-grade intramedullary gliomas diagnosed and treated from 2000 to 2023
Data on patient demographics, tumor location, clinical presentation, surgical interventions, adjuvant therapies, and survival outcomes were collected and analyzed.
Results: We retrospectively analyzed five cases of primary intramedullary highgrade gliomas with different localizations: 2 cervical, 1 cervicodorsal, 3 dorsal, and 1 conus medullaris. All patients presented with progressive neurological deficits, including motor weakness and sensory disturbances. MRI was the primary diagnostic tool, showing diffuse spinal cord enlargement with contrast enhancement. Surgical intervention was performed in all cases, aiming for maximal safe resection.
Histopathological analysis confirmed high-grade gliomas (WHO Grade III-IV) in all patients.
Conclusion: This study highlights the challenges in the management of high-grade intramedullary gliomas, emphasizing the importance of early diagnosis and a multidisciplinary approach to improve patient outcomes.

19. Primary intramedullary melanocytoma in the thoracic cord: a case report and literature review

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Introduction: Primary central nervous system (CNS) melanocytoma is a very rare entity. Until today, less than 80 cases of primary intradural spinal melanocytoma have been reported in the English literature, and are mainly localized in the cervical region.
Methods and results: We report a rare case of a 45-year-old male with a 2-month history of lower limb weakness and back pain. Magnetic resonance imaging showed an intradural extramedullary lesion at T9-T10 level. The patient underwent a subtotal resection. Histopathological exam confirmed the diagnosis of a primary intradural extramedullary melanocytoma of the thoracic spine.
Conclusion: While melanocytomas are considered to be benign lesions, there is potential for their growth and transformation into malignant melanomas. Therefore, although surgical resection is considered an effective method to manage this tumor, adjuvant radio therapy remains advised due to the risk of recurrence and malignant transformation.

20. Primary spinal localization of large B-cell lymphoma: a case report and review of the litterature

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Introduction*:* Primary spinal localization of large B-cell lymphoma is rare. In fact, vertebral involvement generally occurs at a very advanced

stage of the disease in its systemic form.
Methods: We report the case of a 24-year-old woman who presented to our department with a 2-month history of heaviness in both lower limbs. Examination revealed paraplegia. Radiological assessment identified a lytic lesion in the L2 vertebral body, causing displacement of the posterior wall and severe compression of the spinal cord terminal cone.
Results: A two-stage surgical intervention was performed. The first stage involved emergency decompression through a laminectomy, followed by a L2 corporectomy via a left lombotomy. Histopathological examination revealed a diffuse large B-cell lymphoma. Tumor extension investigations were negative. The patient received adjuvant chemotherapy and was symptom-free at the most recent follow-up examination, 8 months post-surgery.
Conclusion: Non-Hodgkin's lymphomas are an uncommon cause of spinal cord compression and its clinical and radiological presentations are not specific.radical surgical removal remain the cornerstone of the treatment despite the chemosensitivity of these lesions

21. Spinal dorsal metastasis of melanoma: A case report and review of the literature

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Introduction: Metastatic spinal melanoma is a rare and aggressive disease process with poor prognosis.
Methods and results: A 35-year-old female patient was admitted with a nine-month history of back pain and progressive walking difficulty associated with heaviness in the lower limbs and gait disturbance. Clinical examination revealed hyperactive reflexes and bilateral Babinski signs. Imaging studies, including lumbar CT and MRI, revealed a narrow lumbar canal and compression of the spinal cord at D8. MRI further showed a tumor of extradural origin, likely lymphoma or secondary malignancy, with vertebral involvement and a large axillary lymph node.
The patient underwent a gross total resection of lesion. Histopathological analysis confirmed the diagnosis of melanoma.
Conclusion: While survival outcomes for metastatic spinal melanoma remain poor, they have improved in recent years with the advent of immune checkpoint inhibition, used in conjunction with surgery and radiotherapy. New treatment options remain under investigation, especially for patients with disease refractory to immunotherapy.

22. Stereotactic biopsies for posterior fossa: Technique and experience in a reference hospital

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Introduction: Stereotactic biopsy of posterior fossa lesions, which are often inoperable, enables a safe trajectory and provides tissue samples for accurate diagnosis, which is crucial for correct treatment since the latest World Health Organization Classification of Tumors of the Central Nervous System from 2021 places immense emphasis on molecular diagnostics. Lesions of the posterior fossa, such as the brainstem, cerebellar peduncle, and cerebellum, are challenging in diagnosis and treatment due to the fact that they are often located eloquently and total resection is rarely possible.
Methods: We present our experience with stereotactic biopsies of the posterior fossa in the National Institut Of Neurology of Tunis. Retrospective study in four consecutive patients, performed between 2022 and 2024 ,whose variables were age, gender, location of the lesions, clinical, radiological, and histopathological diagnoses.
Results: We performed analysis on the 4 cases (2 men and 2 women). Age of the patients ranged between 37 and 63 years.Two patients showed a left sided lesion, 1 showed a lesion in the right cerebellum and 1 patient showed a midline lesion. The definitive diagnosis was pilocytic astrocytoma, diffuse astrocytoma, anaplastic astrocytoma and glioblastoma. All our patients underwent the procedure under general anesthesia. No complications occurred, and targeting was accurate in all cases. All tissue samplings provided proper histology. In this series, we had no surgery-related complications.
Conclusion: Our data suggests that stereotactic biopsies are safe and reliable for infratentorial lesions bearing a high diagnostic yield and an acceptable complication rate.
Further research should focus on the planning of safe trajectories and a careful case selection with the goal of minimizing complications and maximizing diagnostic success.

23. Surgical Management of Choroid Plexus Tumors: A 14-Year Retrospective Study

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Introduction: Choroid plexus tumors (CPTs) are rare neuroepithelial tumors that originate from the choroid plexus epithelium. These tumors range from benign papillomas to highly aggressive carcinomas. Due to their intraventricular location and vascularity, surgical resection presents significant challenges.The objective of this study is to analyze the epidemiological, clinical, radiological, histopathological, and therapeutic aspects of CPTs, along with their post-operative outcomes, to better understand their management and prognostic factors.
Methods: A retrospective study was conducted at CHU Habib Bourguiba de Sfax over 14 years (January 2010 - December 2023). Data were collected from clinical records, radiological imaging, surgical reports, and histopathological analyses. Parameters such as tumor location, clinical presentation, imaging characteristics, surgical approach, histopathology, and post-treatment evolution were assessed.
Results: A total of seven cases of CPTs were analyzed.
The majority of patients presented with signs of intracranial hypertension (85.7%), including headaches, vomiting, and visual disturbances. Imaging revealed intraventricular tumors with heterogeneous enhancement, frequent hydrocephalus, and occasional calcifications. Histopathological examination classified the tumors into three groups: choroid plexus papilloma (PPC), atypical choroid plexus papilloma (PAPC), and choroid plexus carcinoma (CPC). Surgical resection was performed in all patients, achieving gross total resection in 57% of cases. Postoperative complications included hydrocephalus requiring shunting (28.5%), infections (14.2%), and one perioperative mortality. Adjuvant therapy (chemotherapy or radiotherapy) was required for CPC cases. Long-term follow-up showed recurrence in CPC patients, while PPC patients remained recurrence-free.
Conclusions: CPTs require a multidisciplinary approach for optimal management. While PPCs have an excellent prognosis with surgical resection, CPCs present a significant challenge due to their aggressive nature. Advances in imaging, surgical techniques, and adjuvant therapies are crucial for improving outcomes.

24. Unexpected Long-Term Survival in Glioblastoma Patients: About three cases.

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Introduction: Despite aggressive multimodal treatment, glioblastoma (GBM) remains a highly lethal disease with a poor prognosis. However,

a subset of patients defies expectations and achieves long-term survival. In these cases, we aimed to investigate potential contributing factors.
Methods: We report the cases of three patients, two males and one female, with a median age of 51 years, who presented with supratentorial GBM. Two patients underwent the most complete possible tumor resection, while the third patient underwent only a stereotactic biopsy. All patients were referred for adjuvant treatment; however, the patient who underwent a stereotactic biopsy was unable to complete radiotherapy and chemotherapy due to the COVID-19 pandemic.
Results: During follow-up, the two patients who underwent extensive tumor resection followed by adjuvant therapy are still alive to this day, having survived for over 24 months (30 and 26 months, respectively) without recurrence. Remarkably, the patient who underwent only a biopsy and did not complete adjuvant treatment has survived for more than six years, with spontaneous tumor calcification.
Conclusion: These cases highlight the variability in GBM prognosis and raise questions about potential factors influencing long-term survival. The role of surgical resection in prolonging survival is well established, but the unexpected long-term survival of a patient without adjuvant therapy suggests that other mechanisms, such as tumor calcification and potential immunological responses triggered by COVID-19, may play a role.

25. Unusual Epidural Extension of a Glioblastoma: Case report

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Introduction: Glioblastoma (GBM) is the most aggressive and common primary brain tumor in adults, typically confined to the brain parenchyma. Dural invasion by glioblastoma is extremely rare, and predominant epidural extension mimicking a meningioma is even more unusual. Such atypical presentations pose significant diagnostic challenges, potentially delaying appropriate treatment. We report a rare case of glioblastoma with epidural extension and dural invasion, initially misdiagnosed as a meningioma, to highlight the complexities of diagnosing and managing these uncommon cases.
Methods and results: A 68-year-old male presented with headaches. A CT scan revealed a predominantly epidural lesion in the frontal region with intracranial extension, resembling a meningioma. The initial surgery confirmed the appearance of a meningioma, leading to a misdiagnosis. One month later, the patient relapsed with signs of intracranial hypertension, and follow-up imaging showed rapid tumor progression. A second surgery was performed and the histopathological diagnosis was glioblastoma. The patient received adjuvant radiotherapy and chemotherapy, with stable disease at six months.
Conclusion: Glioblastomas can present in unusual ways, and even common diagnoses like meningioma should be approached with caution when atypical features are present.

26. When surgery is not an option: Radiotherapy for malignant peripheral nerve sheath tumor in an elderly patient: Case report

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Introduction: Malignant peripheral nerve sheath tumors (MPNSTs) are rare and aggressive soft tissue sarcomas. They may arise de novo, from pre-existing neurofibromas or after radiation exposure. Given their poor response to systemic therapies, complete surgical resection remains the gold standard. However, this approach is not always feasible in elderly patients, highlighting the potential role of radiotherapy.
Case-Report: An 83-year-old woman with cardiovascular comorbidities presented with pain on the inner dorsal aspect of the left foot. Imaging revealed a suspicious soft tissue lesion. MRI showed a fusiform thickening of plantar tissue spanning multiple metatarsals. Histopathological analysis of a fragmented excision specimen confirmed MPNST. Staging showed no metastases, but MRI revealed residual bifocal tumor. The patient declined amputation proposed for curative surgery. She was thus treated with external beam radiotherapy using VMAT: 66 Gy to high-risk areas (tumor bed and residual tissue) and 50 Gy to surrounding low-risk volumes. A higher dose of 70 Gy was not possible due to dosimetric constraints. MRI at 3 months post-treatment showed a partial response. Further evaluation is ongoing.
Conclusion: This case underscores the importance of radiotherapy as a viable alternative for elderly patients with inoperable MPNSTs, particularly when surgery is refused or contraindicated. However, surgery remains the standard of care and offers the best chance of cure when achievable.

27. When Tumors Hide Deep: Uncommon Infratemporal Fossa Tumors – A Three-Case Report

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Introduction: Tumors of the infratemporal fossa (ITF) are uncommon and often present atypically. Their deep location and proximity to cranial nerves make surgery challenging. Due to their rarity, standardized treatment guidelines remain undefined.
Methodology: A case report was conducted on three patients with ITF tumors treated in the Radiotherapy Oncology Department of Farhat Hached Hospital, Sousse. Data were collected in 2025.
Results:
The 1st case: A 44-year-old female with a left cheek mass. Imaging revealed an ITF tumor with mandibular erosion. Biopsy confirmed biphasic synovial sarcoma (X;18 translocation). Due to the tumor's location, surgical resection was not feasible. She underwent chemotherapy with four cycles of anthracycline and ifosfamide (AI) with partial response, followed by radiotherapy, which delivered 70 Gy to the tumor and the involved lymph nodes.
The second case: A 24-year-old female presented with a painless palate mass. Biopsy confirmed monophasic synovial sarcoma. CT showed bone lysis in the hard palate, vomer, and maxillary bone, with bilateral lymphadenopathy (IIb, V). She underwent right hemi-maxillectomy, reconstruction, and lymphadenectomy. Histopathology revealed Grade II monophasic synovial sarcoma, R2 resection, and lymph node involvement. The patient received four cycles of AI chemotherapy, followed by 70 Gy radiotherapy.
The third case: A 39-year-old female presented with a left cheek mass. CT revealed a liquid mass in the ITF extending into the ipsilateral masticatory space. Biopsy diagnosed intermediate-grade mucoepidermoid carcinoma. Incomplete resection and functional lymphadenectomy were performed, with negative triangular lymph node dissection. Adjuvant radiotherapy was given: 70 Gy to the tumor, 54 Gy to the main lymphatic drainage sites (Ia, Ib, II, III, IX).
Conclusion: Tumors of the ITF are rare, Management is primarily determined by the histological type, with a multimodal approach, combining surgery, chemotherapy, and radio therapy often providing the best outcomes.

Prostate Cancer

1. Incidence and Predictive Factors of Radiation-Induced Ano-Rectitis in Prostate Cancer Radiotherapy: A Descriptive Cross-Sectional Study

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Introduction: In prostate cancer radiotherapy (RT), dose escalation has led to increased radiation exposure to organs at risk, particularly the rectum and anal canal. As a result, the risk of developing radiation-induced ano-rectitis is heightened, potentially impairing patient quality of life and compromising treatment outcomes.
Objective: To describe the incidence and clinical characteristics of radiation-induced ano-rectitis in patients undergoing RT for prostate cancer.
Materials and Methods: A descriptive cross-sectional study was conducted over two months (February–March 2025) at the Department of Radiation Oncology Farhat Hached University Hospital, Sousse. All patients undergoing RT for prostate cancer during this period were included. Volumetric Modulated Arc Therapy (VMAT) was used, delivering a dose of 76–78 Gy to the prostate and 46 Gy to the pelvic lymph nodes in conventional fractionation. Epidemiological and clinical data were collected. Symptoms were evaluated according to the CTCAE scale.
Results: Sixteen patients were included. The median age was 67 years [59–84]. Among medical histories, 4 patients had diabetes, 2 had hemorrhoids, and 4 were smokers. Dose constraints for the rectum (V50Gy < 50%; V60Gy < 50%; V70Gy < 25%; V75Gy < 35%) and the anal canal (mean dose < 40–45 Gy; maximum dose < 55 Gy) were respected in 50% of cases. In the remaining patients, the most commonly violated constraints were Dmax (first) and V50Gy (second). Radiation-induced ano-rectitis was observed in 50% of patients, all of whom had at least one dose constraint violation. Reported symptoms included grade 1–2 diarrhea (75%) and anal burning (25%). All patients responded favorably to symptomatic treatment. The condition was more frequent in patients with diabetes, hemorrhoids, smoking history, or non-compliant dosimetric parameters.
Conclusion: Strict adherence to dose constraints for the rectum and anal canal is critical to reducing the risk of radiation-induced ano-rectitis, especially in high-risk patients such as those with diabetes, hemorrhoids, or smoking history.

Others

1. A Rare Case of Endobronchial Small Cell Lung Carcinoma: Insights and Management

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Introduction: Small cell lung carcinoma (SCLC) is an aggressive cancer with rapid growth and early metastasis. Although rare, hemoptysis may suggest endobronchial involvement, especially in advanced stages.
Case report : A 63-year-old male, non-smoker with no medical history, presented with one month of hemoptysis and chest pain. Chest CT showed an endobronchial polypoid tumor obstructing 60% of the right main bronchus (16x11x15 mm) with lobulated margins. Lymphadenopathy was noted in the 4L and 7 regions. Bronchoscopy and biopsy confirmed limited-stage SCLC, T2N3M0. Following diagnosis, the patient received four cycles of cisplatin and etoposide chemotherapy, resulting in hemoptysis resolution and stable disease. This was followed by four cycles of taxotere-based chemotherapy and thoracic radiotherapy using VMAT (60 Gy in 30 fractions), with prophylactic cranial irradiation (25 Gy in 10 fractions). During treatment, the patient developed dysphagia; esophagogastroduodenoscopy showed ulcerative esophagitis with candidal infection. Antifungal therapy and proton pump inhibitors led to symptom improvement.
Discussion: This case highlights the uncommon endobronchial form of SCLC, which more typically presents as a central mass with early lymphatic spread. Endobronchial tumors carry specific risks, including airway obstruction and hemoptysis, necessitating prompt diagnostic and therapeutic responses.
Conclusion: This case demonstrates that even small tumors can have a substantial impact on patient health, leading to significant treatment-related toxicities.

2. Acute Skin Toxicity Assessment in Patients Treated with VMAT on Halcyon for Breast Cancer Irradiation: A Prospective Monocentric Study

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Objective: The main objective of this study was to assess acute skin toxicity in breast cancer patients treated with volumetric modulated arc therapy (VMAT) using Halcyon machines, in the context of locoregional radiotherapy.
Patients and Methods: A consecutive series of 20 breast cancer patients (stages I to IV) was analyzed. All patients received VMAT radiotherapy at the Salah Azaiez Institute. Five patients were treated with a normo fractionated protocol (50 Gy in 25 fractions), three of whom received a 14 Gy boost. The remaining 15 patients received a total dose of 40.05 Gy in 15 fractions, with a 12.5 Gy boost administered in nine cases. Dosimetric constraints included: V95% ≥ 99% for the clinical target volume of the breast, V95% > 95% for other target volumes, mean lung dose < 15 Gy, lung V20 < 22%, and mean heart dose < 12 Gy. Acute skin toxicity was assessed using the CTCAE version 5 scale. Skin phototypes and irradiated volumes (whole breast or chest wall) were considered.
Results: Weekly follow-up was conducted throughout the treatment duration. No patients developed grade 3 or higher acute toxicity. Ten patients developed grade 1 or 2 acute radiodermatitis: 8 cases of grade 1 and 9 cases of grade 2 were recorded. Three patients showed no skin reaction.
Conclusion: The use of VMAT on Halcyon machines for breast cancer irradiation demonstrated good acute skin tolerance, with no severe toxicity observed. Longer follow-up and a larger patient cohort are needed to better evaluate skin toxicity.

3. Assessment of Acute Gastrointestinal Toxicity Induced by VMAT Pelvic Radiotherapy in Gynecological Cancers

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Introduction: Pelvic radiotherapy (RT) plays a central role in the management of gynecological cancers, either as a standalone treatment or in combination with concurrent chemotherapy (CT), including in the postoperative setting. However, it is frequently associated with acute gastrointestinal toxicity, which can significantly impact patient comfort

and treatment compliance.
Objective: To evaluate acute gastrointestinal toxicity during pelvic RT in patients with cervical or endometrial cancer.
Methods: This was a descriptive cross-sectional study conducted between February and March 2025 at the Department of Radiation Oncology, Farhat Hached University Hospital, Sousse. The study included patients receiving curative pelvic RT using Volumetric Modulated Arc Therapy (VMAT) for cervical or endometrial cancers.
Results: Fifteen patients were included, with a median age of 52 years [35–70]. Two patients had diabetes. Eight had cervical cancer (45 Gy in 1.8 Gy fractions with a boost up to 60 Gy for para-aortic nodal irradiation), and seven had endometrial cancer (45–50.4 Gy in 25–28 fractions). Neoadjuvant and concurrent CT was administered in 46.7% and 86.7% of cases, respectively. Seven patients underwent surgery: one colpohysterectomy with lymph node dissection, and six total hysterectomies with bilateral salpingo-oophorectomy and pelvic/para-aortic lymphadenectomy.
Small bowel dose constraints were assessed according to the EMBRACE II protocol: Dmax < 105%; V40 Gy < 250 cm³; V30 Gy < 500 cm³; and for para-aortic irradiation: V40 Gy < 300 cm³; V30 Gy < 650 cm³. Most patients exceeded the V30 Gy constraint, with 11 patients having V30 Gy > 500 cm³. Ten patients developed grade 1 diarrhea, typically beginning in the second week of treatment and resolving with symptomatic therapy. The severity of toxicity was greater in diabetic patients, those who underwent surgery, received concurrent CT, had para-aortic irradiation, or exceeded small bowel dose constraints.
Conclusion: Acute gastrointestinal toxicity remains a common side effect of pelvic RT, influenced by various clinical and dosimetric factors. Rigorous treatment planning and weekly clinical monitoring are essential to mitigate toxicity and improve treatment tolerance.

4. Assessment of post-traumatic stress disorder in patients undergoing radiotherapy for gynecological cancer

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Introduction: Difficulty coping with chronic illness, perceived lack of social support, and feelings of demoralization increase cancer patients' vulnerability to post-traumatic stress disorder (PTSD), which can profoundly affect their physical and emotional well-being as well as their overall quality of life (QOL). The objective of this study was to evaluate the prevalence of PTSD among gynecological cancer patients undergoing radiotherapy (RT) and to identify the associated risk factors.
Patients and methods: A cross-sectional study including 40 women undergoing daily RT in the radiation oncology department, Farhat Hached hospital, Sousse, Tunisia during October 2024. The PTSD was assessed via the PCL-5 scale (Post-traumatic stress disorder Checklist version DSM).
Results: The median age was 49 years old [33-69]. The majority of participants (75%) were diagnosed with breast cancer, 15% with cervical cancer and 10% with endometrial cancer. Sixty eight percent of patients were affected with PTSD (PCL-5>33). The median PCL-5 score was 30. PTSD was more prevalent among younger patients (p=0.033), women with primary or secondary education (p=0.029), those with a more advanced disease stage (p=0.01) and who had received chemotherapy (CT) (p=0.019) as well as patients with severe symptoms (p=0.02). Also mothers of two children or more and those living outside urban areas were more likely to suffer from PTSD (p=0.06 and 0.05). However, only 2% of patients had suicidal thoughts.
Conclusion: This study highlights the significant prevalence of PTSD among patients with gynecological cancer, particularly among young people, with lower educational levels, with advanced disease, severe symptoms and receiving CT. Therefore, it is crucial for healthcare providers to closely monitor psychological distress in this particular population to improve their overall QOL.

5. Breast Cancer Diagnosed During Pregnancy: Therapeutic Challenges

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Introduction: Pregnancy-associated breast cancer (PABC) is defined as the occurrence of breast cancer during pregnancy or within one year postpartum. It is the most common cancer diagnosed during pregnancy, with an estimated incidence ranging from 1 in 3,000 to 1 in 10,000 pregnancies, accounting for 0.2% to 3.8% of cases.
Methods: This is an analytical and descriptive study conducted over a two-year period, collecting three cases of breast cancer diagnosed at an early stage during pregnancy in patients followed at the Department of Obstetrics and Gynecology at Farhat Hached Hospital.
Results: The 3cases accounted for 1.86% of the 161 diagnosed cases. The average age of our patients was 34.33 years. The mean gestational age at diagnosis was 27.5 weeks of amenorrhea. The primary reason for diagnosis was the clinical palpation of a breast nodule, with an average consultation delay of three months and one week. At the time of diagnosis, the average tumor size was 3 cm, with no inflammatory signs, and in all three cases, an ipsilateral axillary lymph node was palpable. Among the three cases, two patients had tumors in the left breast, specifically in the upper outer quadrant. All patients underwent a core needle biopsy following a breast ultrasound. Histological examination confirmed an invasive ductal carcinoma in all cases, with a predominant triple-negative immunohistochemical profile. 2 patients underwent a Patey procedure, while one patient initially received conservative treatment followed by a mastectomy due to positive surgical margins. A planned delivery was carried out at 35 weeks of gestation for two patients, while one patient delivered prematurely at 34 weeks due to a postoperative preterm labor threat. All 3 patients received adjuvant chemotherapy and radiotherapy postpartum. The median survival was 112 months.
Conclusion: Breast cancer during pregnancy requires prompt management to optimize treatment while preserving fetal health. Early diagnosis allows for the adaptation of therapeutic strategies, including surgery, chemotherapy, and postpartum radiotherapy. A personalized approach remains essential to improve maternal prognosis without compromising obstetric outcomes.

6. Case Report: Adjuvant Radiotherapy for an Intermediate-Grade Laryngeal Chondrosarcoma

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Introduction: Laryngeal chondrosarcoma is a rare cartilaginous tumour, accounting for less than 1% of laryngeal neoplasms. It requires a specific management approach, distinct from that of other laryngeal cancers, due to its unique clinical presentation and progression.
Case Presentation: We report the case of a 52-year-old male patient, with no significant medical history, who presented with dysphonia and dyspnea that had been progressing over several years. Direct laryngoscopy revealed a submucosal tumour affecting all three levels of the larynx. Cervico-thoraco-abdomino-pelvic CT imaging revealed a glottic, supraglottic, and subglottic soft tissue mass, heavily calcified and centered on the cricoid cartilage, with bilateral extension,

predominantly on the right. The mass measured 58 × 47 × 60 mm and caused complete laryngeal stenosis. The CT appearance was highly suggestive of a chondrosarcoma. No cervical lymphadenopathy or distant metastases were identified. A biopsy performed via an external approach confirmed the diagnosis of moderately differentiated (grade II) chondrosarcoma. The patient underwent a total laryngectomy combined with a total thyroidectomy. Histopathological examination confirmed a grade II chondrosarcoma extending across all three right laryngeal levels and the left subglottic region over 7 cm, with invasion of the thyroid cartilage and pre-laryngeal muscle, displacing the right thyroid parenchyma. Surgical margins were clear, with a circumferential margin of 1 mm. Due to the presence of poor prognostic factors, adjuvant radiotherapy was indicated.

Discussion: Laryngeal chondrosarcoma is a rare, non-lymphophilic entity with a multifactorial etiology, primarily affecting men between the ages of 50 and 80. The cricoid cartilage is the most commonly involved site. Dysphonia is the main presenting symptom. For intermediate-grade chondrosarcomas, total laryngectomy with thyroidectomy is the standard treatment. The role of radiotherapy remains controversial and is dependent on the presence of adverse prognostic factors.

Conclusion: Management of intermediate-grade laryngeal chondrosarcoma lacks consensus. Although radical surgery remains the treatment of choice, the decision to administer adjuvant radiotherapy should be considered on a case-by-case basis, guided by histopathological prognostic factors.

7. Cervical Neuroendocrine Tumor: Insights from a Rare Clinical Case

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Introduction: Neuroendocrine tumors (NETs) are rare malignant tumors that can develop in various parts of the body, primarily in the digestive tract and bronchial tree. They account for less than 2% of all cervical cancers. The diagnostic and therapeutic management of these tumors is challenging and is mainly extrapolated from that of pulmonary neuroendocrine tumors. Despite multimodal treatment, their prognosis remains poor.

Methods: We report the case of a patient being followed for a cervical NET at the Department of Gynecology and Obstetrics at Farhat Hached University Hospital in Sousse.

Results: Mrs. H.T., 57 y/o, postmenopausal for 7 years, with a history of ulcerated nodular melanoma of the scalp that had been surgically treated, consulted for postmenopausal bleeding. The clinical examination revealed intrauterine bleeding with a highly hemorrhagic endocervical mass upon contact. The patient underwent a hysteroscopy, and the histopathological examination revealed a poorly differentiated carcinoma, for which the endometrial or cervical origin could not be determined. Magnetic resonance imaging (MRI) showed a 2 cm polypoid lesion on the posterior wall of the endocervix, appearing non-infiltrative. A PET scan showed no suspicious subdiaphragmatic lymph node hypermetabolism. The patient underwent a total abdominal hysterectomy with bilateral salpingo-oophorectomy and bilateral pelvic lymph node dissection. The postoperative course was uneventful.The final histopathological examination concluded a grade 3 neuroendocrine tumor of the endocervix. Immunohistochemical analysis showed strong and diffuse positivity for synaptophysin and cytokeratin, and negativity for Melan-A. The metastatic workup was normal. The tumor was classified as pT2bN0M0 according to the International Federation of Gynecology and Obstetrics (FIGO) staging system. Adjuvant radiotherapy was initiated, along with clinical follow-up of the patient's progression.

Conclusion: Neuroendocrine tumors of the cervix are highly aggressive and rare, which explains the lack of a universal therapeutic consensus. Advances in histopathological and immunohistochemical techniques have made diagnosis increasingly accessible, allowing for more accurate identification and earlier management.

8. Clinicopathological Features and Outcomes of Uterine Sarcomas: A Retrospective Study from the Department of Medical Oncology, Monastir

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Introduction: Uterine sarcomas are rare and aggressive malignancies of the female genital tract, representing a heterogeneous group of tumors with diverse histological subtypes and clinical behaviors. This retrospective study aims to evaluate the clinical characteristics, treatments, and outcomes of patients with uterine sarcomas followed in our department between 2009 and 2022.

Methods: We retrospectively analyzed data from 14 patients diagnosed with uterine sarcoma. Data included demographics, risk factors, histological type, FIGO stage, treatment details, evolution, and survival.

Results: The mean age at diagnosis was 48.2 years (range: 25 to 64 years). Most patients were married (85.7%). The most common histological types were endometrial stromal sarcoma (ESS) (35.7%) and leiomyosarcoma (LMS) (35.7%), followed by carcinosarcoma (28.6%). The distribution of FIGO stages was as follows: Stage IB (21.4%), Stage 3A (14.3%), Stage 3C1 (7.1%), and Stage 4B (50%). Treatments included surgery with curative intent in 12 cases, followed by hormonetherapy in 5 cases and adjuvant chemotherapy in 6 cases. Radiotherapy was delivered in 3 cases concomitantly with chemotherapy. 2 patients received palliative chemotherapy. Regarding evolution, 3 patients were alive and disease-free, while the remainder were lost to follow-up. The mean survival was 20.1 months (range: 1.0 to 88.8 months); the median overall survival was 15.1 months. Risk factors included obesity (28.6%) and a family history of cancer (7.1% meeting HNPC criteria).

Conclusion: Uterine sarcomas are heterogeneous tumors with variable prognoses. A multidisciplinary approach is essential to improve outcomes, particularly given the high proportion of advanced-stage diagnoses and the challenges of follow-up.

9. Concurrent Chemoradiotherapy with Capecitabine in Breast Cancer: Tolerance and Short-Term Outcomes

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Introduction: The concomitant use of oral capecitabine with adjuvant radiotherapy in breast cancer remains underreported, although it is theoretically attractive in certain high-risk clinical scenarios. This strategy may provide therapeutic intensification without prolonging overall treatment time.

Objective: To describe a case series of patients treated with concurrent capecitabine and locoregional adjuvant radiotherapy for breast cancer, assessing the feasibility, tolerance, and early therapeutic outcomes.

Methods: This is a retrospective study including five patients with non-metastatic or oligometastatic breast cancer who received concurrent chemoradiotherapy between 2021 and 2023 in the Department of Radiation Oncology at Farhat Hached University Hospital, Sousse. The patients, aged 29 to 65 years (median: 49 years), were diagnosed with invasive ductal carcinoma (three left-sided, two right-sided). Two patients had triple-negative breast cancer, and three had Luminal B subtype (two HER2-negative, one HER2-positive). TNM staging was as follows: 20% T2N0M0, 40% T4dN1M0, 20% T3N0M0, and 20% T2N3cM0.

Four patients (80%) received neoadjuvant chemotherapy (either 4 cycles of EC followed by 4 cycles of docetaxel or FEC followed by docetaxel). Breast-conserving surgery (lumpectomy with axillary lymph node dissection) was performed in three patients (60%), and two patients (40%) underwent total mastectomy with axillary dissection (Patey procedure).

Before initiating radiotherapy, three patients presented with histologically confirmed ipsilateral axillary level II and retropectoral nodal recurrence. One patient had isolated retropectoral lymph node involvement, and the fifth patient presented with a bone metastasis.

Locoregional radiotherapy was delivered using 3D conformal external beam radiation therapy (EBRT). A dose of 50 Gy was prescribed to the breast/chest wall and regional lymph nodes. A sequential boost of 10 to 16 Gy was delivered to the involved nodal sites using conformal technique.

All patients received concurrent adjuvant oral capecitabine at a dose of 1250 mg/m² twice daily (3 tablets in the morning and 2 in the evening), 5 days per week.

Results: All patients tolerated the treatment well. Acute cutaneous toxicity was predominantly grade I, affecting the axillary and inframammary folds in four patients. No grade ≥2 hematological or gastrointestinal toxicities were observed, and no treatment interruptions were required.

After a median follow-up of 24 months, four patients (80%) showed either complete or partial response to concurrent chemoradiotherapy. One patient achieved a complete response with no evidence of local recurrence or disease progression. Three patients had partial response with disease stabilization. No locoregional recurrences were observed in the irradiated fields. However, two patients developed distant progression (mediastinal and pulmonary lymph node relapse in one, hepatic and cutaneous metastases in the other). The patient with bone oligometastasis died before initiating radiotherapy.

Conclusion: Concurrent administration of capecitabine with locoregional radiotherapy appears feasible and well tolerated, and may represent a relevant therapeutic option in selected high-risk or proven nodal recurrence cases. Nonetheless, the small sample size is a major limitation, highlighting the need for larger prospective studies to validate its clinical utility.

10. Cutaneous Toxicity After Radiotherapy for Locally Advanced Breast Cancer

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Introduction: Radiotherapy is responsible for multiple locoregional side effects, which depend on the site and method of irradiation. For breast cancer, the most common side effects are cutaneous and subcutaneous. Our objective was to assess acute cutaneous toxicity after radiotherapy for locally advanced breast cancer.

Patients and Methods: We reviewed the records of T4 patients who received chest wall (50 or 66 Gy) and regional (50 Gy/25 fractions) RT at the RT Department of Sfax University Hospital, from 2018 to 2023. We compared acute cutaneous toxicity between the 50 and 66 Gy arms.

Results: Our study included 55 patients with a mean age of 48 years [30-70 years]. Tumors were on the left side in 40% of cases. Histological skin invasion was noted in 27.5% of cases. All patients underwent chest wall and supraclavicular RT at a dose of 50 Gy, with a chest wall boost in 29 patients.

Grade 1, 2, 3, and 4 acute skin toxicity was observed in 54.5%, 32.7%, 9%, and 2% of patients, respectively. The mean and median time to onset was 30 days. The comparison between the 2 arms is summarized in the table.

	G I	G II	G III	p
Arm 50 Gy	16	9	1	
Arm 66 Gy	14	9	4	
Total	30	18	5	
p				0.323

Conclusion: The addition of 16 Gy to the chest wall does not increase acute cutaneous toxicity.

This dose supplement may be indicated, especially in patients with histological skin invasion.

11. Dermatofibrosarcoma Protuberans of the Left Cheek in a Young Adult: Case Report and Management Review

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Introduction: Dermatofibrosarcoma protuberans (DFSP), also known as Darier and Ferrand tumor, is a rare, locally aggressive cutaneous soft tissue sarcoma characterized by slow growth and a high rate of local recurrence. It most commonly affects young to middle-aged adults and typically arises on the trunk or proximal extremities; facial involvement is rare and presents unique therapeutic challenges due to both aesthetic and functional considerations. Wide surgical excision with clear margins remains the cornerstone of treatment, and adjuvant radiotherapy may be considered in selected cases to reduce the risk of recurrence. We present a case of DFSP involving the left cheek in a 32-year-old male, managed with surgery followed by adjuvant radiotherapy.

Case Presentation: A 32-year-old man presented with a one-year history of a gradually enlarging lesion on the left cheek. On clinical examination, a 5 cm, firm, painless, dermo-hypodermic nodule was noted in the left cheek, with ill-defined borders. The lesion was located at a safe distance from the lower eyelid, and no cervical lymphadenopathy was identified. Magnetic resonance imaging (MRI) of the facial region revealed a 30×24×30 mm subcutaneous mass in the left cheek in close contact with the maxillary sinus, without overt signs of bony or sinus invasion. A biopsy was performed and showed histopathological features consistent with dermatofibrosarcoma protuberans. The patient underwent surgical excision. Macroscopic examination revealed a 45 mm DFSP of the left cheek. Histopathology confirmed negative surgical margins, with a minimum clearance of 5 mm. Additional lateral, inferior, and lower eyelid margin resections were also clear. A left level Ib lymph node and the left submandibular gland were excised and found to be free of tumor involvement. Following discussion at a multidisciplinary tumor board, adjuvant radiotherapy was recommended. The patient received external beam radiotherapy to the tumor bed at a total dose of 60 Gy in 30 fractions. The treatment was well tolerated, with no significant acute or late toxicity reported.

Conclusion: This case highlights the rare occurrence of DFSP in the facial region and the importance of a multidisciplinary approach for optimal management. Surgical excision with clear margins remains the cornerstone of treatment. Adjuvant radiotherapy can be beneficial in selected cases, particularly when surgical margins are close, to minimize the risk of local recurrence. Close clinical and radiologic

surveillance is essential due to the tumor's high risk of local recurrence.

12. Destombes-Rosai-Dorfman Disease: An Unusual Breast Localization

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Introduction: Rosai-Dorfman-Destombes disease (RDD) is a rare and benign histiocytic disorder. The typical clinical presentation involves bilateral cervical lymphadenopathy. Extranodal involvement is common but breast localization is considered unusual. We report a case of RDD with an atypical localization, managed at the Gynecology Department of Farhat Hached Hospital, which mimicked malignant mastopathy.
Results: Mrs. G.H, a 65-year-old woman, presented with a self-detected nodule in her left breast. She had no family history of breast neoplasia. She is null gravid and has never breastfed. Her medical history includes Alzheimer's disease, progressing for two years, and non-insulin-dependent diabetes. On breast examination, a 3 cm hard, poorly defined, and mobile nodule was palpated in the upper outer quadrant of the left breast. The overlying skin was normal, with no palpable lymphadenopathy (LAP), nipple discharge, or retraction. A breast ultrasound revealed a suspicious left breast lesion measuring 28×15 mm, classified as ACR 5, with no abnormalities in the right breast (ACR 1). A left axillary lymph node of uncertain significance was also noted. A core needle biopsy of the left breast nodule was performed, revealing inflammatory changes without signs of malignancy. Due to the discordance between radiological and pathological findings, the medical team decided on a wide excision with intraoperative frozen section analysis, which revealed a 2 cm firm, apparently inflammatory nodule. The final histopathological examination of the left breast lumpectomy specimen confirmed Rosai-Dorfman-Destombes disease (RDD) of the left breast, measuring 2.5 cm. As the disease is benign, simple follow-up was recommended.
Conclusion: Despite its benign nature, RDD can be mistaken for malignant mastopathy, highlighting the need for histological verification of any suspicious lesion while considering the possibility of a rare benign condition such as RDD.

13. Dosimetric Evaluation of the Lumbosacral Plexus in Pelvic IMRT/VMAT: A Retrospective Study

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Introduction: The lumbosacral plexus (LSP) is not routinely contoured during pelvic radiotherapy planning, potentially leading to unintended high-dose exposure. Radiation-induced lumbosacral plexopathy (RILSP) is a rare but disabling complication.
Objective: To retrospectively evaluate LSP dose exposure in patients treated with IMRT/VMAT for pelvic cancers and identify any cases of RILSP.
Materials and Methods: This retrospective dosimetric analysis included 23 patients with cervical, anal, or prostate cancer treated between April 2024 and March 2025 at the Radiotherapy Department of Farhat Hached University Hospital (Sousse, Tunisia). Inclusion criteria: histologically confirmed pelvic malignancy, regional lymph node involvement, no distant metastases, and whole-pelvis radiotherapy using IMRT or VMAT. The LSP was retrospectively delineated based on anatomical landmarks. No dose constraints were applied during initial planning. Dosimetric parameters included Dmax, Dmean, V40Gy, V50Gy, and V55Gy.
Results: Median age was 56 years (range 38–78). Most patients had cervical cancer (87%), followed by anal (8.7%) and prostate cancer (4.3%). All had nodal involvement. Prescribed doses ranged from 45 to 74.8 Gy depending on tumor type and target volumes. The mean LSP volume was 51.5 cm³ (range 30.5–89.7). Mean Dmax was 56.3 Gy (range 46.1–64.8), and median Dmean was 44.2 Gy (range 35.2–52.8). Mean volume percentages receiving ≥40 Gy, ≥50 Gy, and ≥55 Gy were 75.9%, 19.4%, and 8.6%, respectively. No RILSP cases were reported during treatment.
Conclusion: The LSP receives considerable radiation doses during pelvic IMRT/VMAT, despite not being routinely contoured. Although no RILSP cases were observed, the limited follow-up precludes definitive conclusions. Routine LSP delineation may help reduce long-term neurotoxicity. Further studies are warranted to assess its clinical relevance.

14. Dosimetric impact of chest wall boost in inflammatory breast cancer on OAR: is more always better?

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Introduction: Inflammatory breast cancer (IBC) is an aggressive form of breast cancer, characterized by involvement of the skin. Achieving local control presents a challenge, and strategies such as dose escalation or bolus use in radiation therapy vary across clinical practices, with no clear recommendations available.
Purpose: To report our institution's experience with the treatment of IBC using 3D conformal radiotherapy (CRT) and dose escalation with a chest wall boost.
Materials and Methods: Through a retrospective dosimetric study, we identified 24 patients with IBC who received trimodality treatment consisting of chemotherapy, radical surgery, followed by curative 3D CRT between 2019 and 2024 at Farhat Hached University Hospital's radiotherapy department in Sousse, Tunisia. Clinical target volumes included the chest wall and regional lymph node regions. Boost volumes were defined by the surgical scar with a margin, the entire chest wall, or the surgical scar and tumor bed, according to the radiation therapist's assessment. For organs at risk, we focused on the mean dose received by the heart and the left anterior descending artery (LAD), and for the lungs, the V17 and V28 values.
Results: A total of 24 patients were identified, with a median age of 57 years (IQR: 42-79 years). 79% received neoadjuvant chemotherapy, 19% received adjuvant chemotherapy, and 33% received Herceptin. All patients underwent radical surgery. Clinical target volumes included locoregional nodes in 95.8% of cases, with internal mammary lymph nodes included in 66.7% of patients. Axillary radiotherapy was performed in 8.3% of cases. Patients received radiotherapy doses ranging from 40 Gy to 52.2 Gy to the chest wall and draining lymphatic regions, followed by sequential dose escalation of 13.35 Gy to 16 Gy to the predefined boost volume. The median mean heart dose was 2.68 Gy without the chest wall boost and 2.98 Gy with the boost ($p=0.236$). The median mean dose to the left anterior descending artery (LAD) was 13.66 Gy without the boost versus 16.39 Gy with the boost ($p=0.002$). For the ipsilateral lung, the median V17Gy was 17.73% without the boost and 28.26% with the boost ($p=0.004$), while the median V28Gy was 13.39% without the boost versus 20.59% with the boost ($p<0.001$).
Conclusion: Local control in IBC is challenging and requires specific radiation methods. A chest wall boost increases the total radiation dose on the chest wall as well as on organs at risk (OAR), which can enhance toxicity. Techniques such as the use of a bolus should be preferred as it increases the skin dose without the need for dose escalation.

15. Dual Breast and Endometrial Cancer: Impact of MSH6 and MLH3 Mutations

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Introduction: Breast and endometrial cancers are the most common gynecological cancers in women. Their incidence is influenced by various factors, including hormonal, environmental, and genetic components. Hereditary cancer predisposition syndromes, particularly Lynch syndrome, are well known for their involvement in colorectal and gynecological cancers, especially endometrial cancer. These syndromes are caused by mutations in mismatch repair (MMR) genes. The successive occurrence of breast cancer followed by endometrial cancer in the same patient raises the question of an underlying genetic predisposition.
Methods: This is a retrospective study of a patient who was treated at the Department of Gynecology and Obstetrics at Farhat Hached Hospital.
Results: This is a 52-year-old patient with a significant family history of cancer (mother and maternal cousins diagnosed with early-onset breast cancer, paternal uncle with pancreatic cancer). She is G4P2 and postmenopausal. A routine screening mammogram revealed an area of architectural distortion at the junction of the upper outer quadrants of the left breast, classified as ACR 4. A core needle biopsy confirmed an invasive ductal carcinoma. The patient underwent conservative treatment with a sentinel lymph node biopsy, followed by curative intent locoregional radiotherapy, chemotherapy, and hormone therapy. Seven years later, a routine pelvic ultrasound incidentally detected a left lateral uterine cystic lesion with vegetations. MRI confirmed the presence of a left adnexal mass classified as O-RADS 4. A diagnostic laparoscopy was performed, and intraoperative frozen section analysis revealed an ovarian carcinoma, prompting a radical surgical procedure consisting of total extended hysterectomy with bilateral salpingo-oophorectomy. The final histopathological analysis confirmed a moderately differentiated endometrioid adenocarcinoma of the endometrium, classified as FIGO IIIB. The patient subsequently received brachytherapy and adjuvant radiotherapy. This association of malignancies led to a genetic study, which revealed mutations in the MLH3 and MSH6 genes.
Conclusion: This case highlights the importance of genetic screening in multiple gynecological cancers. The presence of an MSH6 and MLH3 mutation suggests a hereditary predisposition, emphasizing the role of MMR system abnormalities in carcinogenesis.

16. Endometrial Cancer in Young Women: Indications, Outcomes, and Prognostic Impact of Radiotherapy

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Introduction: Endometrial cancer, while predominantly a malignancy of postmenopausal women, is increasingly diagnosed in younger populations. Management strategies in this demographic must balance oncologic control with the preservation of reproductive potential. The role of radiotherapy, particularly as an adjuvant modality, remains to be precisely defined in young women with endometrial cancer.
Methods: A retrospective analytical study was conducted in the Department of Obstetrics and Gynecology at Farhat Hached University Hospital, Sousse, Tunisia. The cohort included 24 women aged 40 years or younger, diagnosed with endometrial cancer between January 2010 and December 2022. We assessed indications for radiotherapy, treatment modalities, and outcomes in terms of overall survival, progression-free survival, and locoregional control, alongside treatment tolerance.
Results: Among the 24 patients, 16.6% underwent adjuvant radiotherapy, primarily indicated for deep myometrial invasion (>50%) and high-grade histology. The 3- and 5-year overall survival rates in patients receiving radiotherapy were 80%, compared to 100% in those who did not require adjuvant radiotherapy ($p = 0.07$). Multivariate analysis suggested that radiotherapy was more frequently administered in the context of advanced disease, which may account for the observed survival disparity. Notably, local disease control in the irradiated group was excellent, with no recorded cases of locoregional recurrence at a median follow-up of 60 months. Treatment tolerance was acceptable, with no severe (grade 3–4) toxicities reported.
Conclusion: In young women with endometrial cancer, radiotherapy retains a selective yet pivotal role, reserved for high-risk pathological profiles and cases of deep myometrial invasion. Although associated with slightly reduced overall survival—likely reflective of more advanced disease burden—radiotherapy provides robust locoregional control with minimal severe toxicity. Careful patient selection remains essential to maximize the therapeutic benefit while mitigating long-term morbidity.

17. Ethical and medicolegal aspects of Oncological Care of prisoners in Tunisia

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Introduction: Despite their situation of detention, prisoners are entitled to a set of rights guaranteed by the State, such as the right to medical care, whether oncological or otherwise, equivalent to that of the rest of the population. However, the mechanisms in place to ensure equal access to care are often hindered by security policies and the specific living conditions of the prison environment. This work aimed to discuss the ethical and regulatory aspects of oncology care for prisoners in Tunisia.
Methods: We reviewed the scientific literature on the subject under discussion, particularly by studying law no. 2001-52 of May 14, 2001, relating the organization of prisons in Tunisia.
Results and discussion: Tunisian law no. 2001-52 on the organization of prisons and Decree No. 88-1876 of 4 November 1988 on the Special Regulations for Prisons provide access to free care and medication within prisons and, in their absence, in hospitals, on the advice of the prison doctor. Prisoners may therefore be required to undergo free oncology treatment in hospitals or even in clinics, though this late possibility is often lacking. The obstacles are numerous, resulting in difficulties in ensuring outside appointments, organizing transport (ambulance, police escort, etc.), and patient Compliance often not being optimal, with priority given to the prisoner's-controlled freedom over his or her health. This logistical shortcoming results in the rights of detained patients often being neglected
Conclusion: The European Prison Rules stipulate that imprisonment, under its deprivation of liberty, is a punishment in its own right. The suffering caused by imprisonment must thus not be exacerbated, particularly in the case of some prisoners at the end of their lives as a result of inadequate oncological treatment.

18. Ethical considerations of Artificial Intelligence applied to radiotherapy

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Introduction: Artificial intelligence (AI) has become increasingly prominent in the healthcare sector in recent years. Recent technological and computer developments have enabled radiotherapy to improve treatment precision, enhance patient comfort, and reduce treatment times. However, to support the optimal deployment of AI technologies, several ethical considerations need to be taken into account.
Methods: We reviewed the scientific literature on the subject under discussion, particularly by reviewing the opinions of various national and international ethical committees on the subject.
Results and discussion: The contribution of AI to radiotherapy lies both before and duringtreatment. Prior to treatment, AI would improve the selection and delimitation of organs at risk and target volumes to be treated (reducing human variability, which is detrimental to the homogeneity of treatment), as well as treatment planning and initial dose calculation based on magnetic resonance imaging (MRI). AI would enable better adaptation during treatment, with dose redelimitation and recalculation. In this context, it is important to distinguish between the medical and legal liability of AI decision-making, the potential for bias and inequality, data access and confidentiality, and the impact on patients and healthcare workers. AI requires huge amounts of high-quality data for processing, where small or unconnected data and non-accessible data, can impact the quality of AI advances. A further major issue is that the wider implementation of AI technologies could have an impact on the overall composition of the healthcare workforce, as well as on the specific skills and expertise required of healthcare providers.
Conclusion: AI technologies focused on cancer treatment in radiotherapy represent a growing area of research and development that offers exciting opportunities for improving cancer care. A dialogue between healthcare system actors regarding the challenges and benefits of expanded AI use in a cancer care context is equally vital to prevent non-compliance with patients' rights.

19. Ethical issues of radiotherapy treatment in pregnant women

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Introduction: Radiotherapy is an essential modality in the treatment of many cancers, but its use in pregnant women raises important ethical and medical issues. The management of these patients must reconcile both the therapeutic imperative of treating the cancer and minimizing the risks to the fetus. We aimed to discuss the ethical considerations in pregnant women undergoing radiotherapy.
Methods: We carried out a literature review on the topic under discussion, analyzing the ethical aspects of radiotherapy treatments and radioprotection and radioprotection methods of reducing fetal exposure.
Discussion: A major concern is to limit the harmful effects of ionizing radiation on the fetus. Radiosensitivity varies according to the stage of pregnancy, with risks of teratogenicity, growth retardation, and long-term carcinogenic effects (principle of non-maleficence). The principle of autonomy requires that pregnant women be fully informed of the risks and benefits of treatment. An informed decision must be made in consultation with the medical team, considering alternative options such as surgery or chemotherapy. It should be explained to the patient that radiotherapy may be essential to his or her survival. In some cases, delaying or modifying treatment may compromise its efficacy and vital prognosis (principle of beneficence). It is also essential to ensure fair access to care, by guaranteeing appropriate treatment for pregnant women with cancer, without discrimination or refusal of treatment (principle of justice).
Conclusion: The ethics of radiotherapy in pregnant women are based on a delicate balance between the well-being of the mother and the protection of the fetus. As each case is unique, a thorough assessment of the benefits and risks is essential to make the best therapeutic decision.

20. Evaluation of CT score 5 for young patients with endocrine receptor positive breast cancer

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Introduction: The risk of late distant recurrence (LDR) of estrogen receptor (ER)-positive breast cancer continues even after 5 years of endocrine treatment. The clinical treatment score (CTS 5) is a model for clinicians to predict LDR for these patients. The score uses 4 variables and 3 risk groups. Our aim is to evaluate CTS 5 in young patients.
Materials and Methods: We retrospectively evaluated the CTS 5 score for 55young patients (< 40 years) ER + breast cancer treatedon oncology department HU Gabes from 2010 to 2016. Only patients who were disease free 5 years after diagnosis were included. CTS 5 score uses 4 parameters: age, tumor size, SBR and lymph node invasion and was calculated for all patients. Risk groups and PFS are determined.
Results: The average age of patients was 36 ± 3,5 years (28-39). Sixty-four percent of patients had SBRII and lymph node involvement. Patients in the low, intermediate and high-risk groups represented 22%, 36% and 42% respectively. Relapse occurred in 18% of the cases, 7.3% and 11% of the cases for intermediate and high-risk groups respectively. Relapses were not statistically different between the 2 risk groups (high vs intermediate). Average PFS for patients in the low risk was 98 months, 89 for the intermediate and 78months for the high-risk group (p=NS).
Conclusion: The CTS 5 used in young patients is a fairly accurate test for predicting late distant recurrences. However, it does not distinguish between risk groups. This can be explained by the fact that young age is a factor of poor prognosis and its presence masks other factors.

21. Importance of continuing training of radiotherapy technicians

Hedhili M, Yazid D, Chamsi A, Tbessi S, Kanoun S, Bouzid N, Tebra S

Introduction: Radiotherapy is a rapidly evolving field that requires continuous enhancement of the skills of senior technicians. Our work emphasizes the importance of ongoing training to ensure high- quality care, reduce technical errors, and align practices with international standards.
Objective: The primary goal is to assess the impact of continuing education programs on technical skills and clinical safety. Moreover, the study aims to identify specific needs in order to effectively tailor the educational content.
Study Type: Descriptive cross-sectional study conducted among the senior radiotherapy technicians of the radiotherapy department at CHU Farhat Hached.
Results: 80% of technicians believe that the initial training is only partially sufficient for mastering daily tasks. 90% of technicians find that continuing education is useful for enhancing their expertise with Halcyon. Most radiotherapy technicians consider that continuing education improves patient safety, increases work efficiency, and enhances the management of technical complications.
Conclusion: Continuing education for senior radiotherapy technicians in Tunisia is essential to meet current technological and clinical demands. There is a need for a structured and adaptive training

framework that incorporates innovative module sandregular evaluations toensure optimal patient care.

22. IMRT/VMAT in Breast Cancer: Should We Consider the Stomach as an Organ at Risk (OAR)?

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Purpose: To evaluate stomach dose exposure during breast cancer radiotherapy using IMRT/VMAT and investigate its association with upper gastrointestinal symptoms.
Materials and Methods: In this retrospective dosimetric study, we analyzed 19 patients with breast cancer treated with adjuvant IMRT or VMAT between April 2024 and March 2025 at the Radiotherapy Department of Farhat Hached University Hospital, Sousse, Tunisia. Mean and maximum stomach doses were assessed. Clinical data regarding gastrointestinal symptoms were collected and correlated with dosimetric parameters.
Results: Nineteen patients were included (median age: 54 years; IQR: 35–78). Left-sided breast cancer was present in 52.6% of cases. Radical surgery was performed in 78.9%. All patients received locoregional radiotherapy, including internal mammary nodes in 68.4% and axillary nodes in 52.6%. Total prescribed doses ranged from 40.05 to 50 Gy, with a sequential boost (10–13.35 Gy) delivered in 21% of patients.
The median stomach volume was 189.5 cm³ (IQR: 68–352.3). The median mean stomach dose was 2.77 Gy (IQR: 0.04–9.45 Gy), and the median maximum dose was 10.54 Gy (IQR: 0.48–37.36 Gy). Gastric symptoms were reported in 47.4% of patients: epigastric pain (10.5%), gastroesophageal reflux (26.3%), and vomiting (10.5%). Left-sided irradiation was significantly associated with higher stomach dose ($p = 0.006$). Boost administration did not significantly increase stomach dose ($p = 0.598$). A significant correlation was observed between stomach volume and gastric symptoms ($p = 0.007$). Both mean and maximum stomach doses were significantly associated with symptom occurrence ($p = 0.006$ and $p = 0.009$, respectively).
Conclusion: This study identifies the stomach as a potential organ at risk (OAR) in breast cancer patients treated with IMRT/VMAT. A significant correlation was found between stomach dose/volume and the occurrence of gastric symptoms. Incorporating dose constraints for the stomach during treatment planning may reduce gastrointestinal toxicity. Further studies are needed to assess long-term outcomes and validate these findings.

23. Information and consent for minors treated with radiotherapy

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Introduction: Informing and seeking the consent of minors in all fields, and radiotherapy in particular, raises both ethical and legal issues. One is the legal obligation to obtain authorization from the legal guardian, and the other is the child's right to be involved in medical decisions that concern him or her. We aimed to discuss recommendations for appropriate information and consent for minors undergoing radiotherapy.
Methods: We carried out a literature review on the topic under discussion, analyzing the legal and ethical aspects of information and consent for minors undergoing radiotherapy.
Results: Involving minors in decision-making is essential to guarantee their rights and promote their participation in treatment. Article 156 of the Tunisian Code of Personal Statusstates that a child who has not reached the age of thirteen is considered to lack discernment all his or her acts are null and void and that a child over the age of thirteen is deemed to have discernment. His acts will be valid if they bring him only benefits, and void if they bring him only prejudices. Apart from these two cases, their validity will be subject to the guardian's agreement. It is therefore crucial to reconsider the approach to information and consent in pediatric radiotherapy, adjusting the discourse to children's understanding and supporting it with educational tools. The medical record must contain a record of the information given to both the legal guardians and the minor. Once the information provided is complete, they will be able to give free and informed consent. The question of consent in radiotherapy is a central issue, due to the repetitive nature of the treatment sessions, which characterize staggered treatment.
Conclusion: Caregivers need to be trained to communicate appropriately and to adopt a more personalized, multidisciplinary approach that promotes the protection and autonomy of young patients.

24. Intracranial Metastases: A Retrospective Analysis of 7 Exceptional Cases

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Introduction: Intracranial metastases (ICM) are the most common type of intracranial tumors. While lung cancer, breast cancer, and melanoma are the primary causes, other solid tumors can, in rare cases, invade the central nervous system. The rarity of these cases presents significant diagnostic and therapeutic challenges. This study aims to describe the epidemiological, pathological, and clinical characteristics of these rare ICM cases, as well as to discuss their prognosis and treatment options.
Materials and Methods: This is a retrospective study based on exceptional ICM cases collected at the Habib Bourguiba University Hospital in Sfax over a 14-year period (2011–2024).
Results: Seven exceptional ICM cases were recorded, with an average age of 45.86 years and a male-to-female ratio of 1.3. The primary cancers included two osteosarcomas, one ovarian adenocarcinoma, one endometrial carcinoma, one adrenal carcinoma, one urothelial carcinoma, and one chondrosarcoma. The time until the development of ICM ranged from 2.5 months to 9 years. In 71% of cases, extracranial metastases either preceded or accompanied the intracranial involvement, with an average delay of 2 years. The main symptom was headache, reported in 6 cases. Magnetic resonance imaging (MRI) suggested ICM in six cases and a pilocytic astrocytoma in one case. Lesions were multiple in 43% of cases and were predominantly located in the parietal lobe and cerebellum (43%). An associated mass effect was observed in 6 cases, perilesional edema in 5 cases, necrosis in 3 cases, and intralesional hemorrhage in 2 cases. The average lesion size was 2 cm. Spectroscopy performed in four patients revealed a lipid peak, with two cases showing an increased choline/NAA ratio. All patients underwent surgical removal of the lesions. The pathological examination confirmed the diagnosis of metastasis, with additional immunohistochemical tests required in two cases. Adjuvant radio-chemotherapy was administered in six cases. Four patients died (two before treatment), one patient is alive with a poor prognosis, and two patients were lost to follow-up.
Conclusion: Our results remind us that any type of cancer, including rare tumors, can lead to intracranial metastases. When faced with an atypical intracranial lesion, this possibility should be considered. This

pioneering study highlights the importance of thorough characterization to refine the diagnosis and optimize patient management. Furthermore, pathological examination remains essential to confirm the final diagnosis and to identify the primary cancer, especially when the ICM is the first sign of the disease.

25. Intracranial Vault Tumors: A Multicenter Study on Epidemiology, Diagnosis, and Management

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Introduction: Intracranial vault tumors are rare lesions that develop from the bones of the skull. They represent less than 2% of all bone tumors and can be either primary (benign or malignant) or secondary. Due to their diverse histopathological profiles, diagnosis and management require a multidisciplinary approach involving neurosurgeons, radiologists, pathologists, and oncologists. This study aims to provide epidemiological insights, diagnostic challenges, and treatment outcomes of vault tumors.
Methods: We conducted a multicenter, retrospective descriptive and analytical study over 16 years (2008-2023) across six neurosurgery departments in Tunisia. We included all patients diagnosed and managed for vault tumors, excluding skull base tumors, meningiomas involving the vault, and infectious lesions. Data were collected from medical records, focusing on demographics, clinical presentation, imaging, surgical intervention, histopathology, and postoperative evolution.
Results: A total of 109 patients were included, with a median age of 29 years (range: 1 month–87 years) and a female predominance (56%). The most common presentation was a palpable mass (94.5%), often located in the frontal region (51.5%). Imaging studies revealed mixed osteolytic and osteosclerotic lesions. Among histopathological diagnoses, primary tumors accounted for 94.5%, with hemangiomas (19.3%), osteomas (18.3%), and Langerhans cell histiocytosis (15.6%) being the most frequent benign entities. Malignant tumors included lymphomas (4.6%) and osteosarcomas (2.8%). Secondary tumors represented 5.5%, with thyroid carcinoma metastases being the most common. Complete surgical excision was achieved in 94.2% of cases, with a recurrence rate of 11.2%. Adjuvant therapy (radiotherapy and/or chemotherapy) was required in 28.4% cases.
Conclusion: Vault tumors, though rare, exhibit a wide histological diversity and pose diagnostic challenges. While surgical resection remains the primary treatment, a multidisciplinary strategy is essential for optimal management, particularly in malignant and recurrent cases. Further studies are needed to refine treatment protocols and improve patient outcomes.

26. Intramedullary Immature Teratoma in a Child: A Rare Case of Recurrent Meningitis and Spinal Dysraphism

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Introduction: Intramedullary immature teratomas are rare spinal tumors, comprising only 0.2-0.5% of all spinal tumors. These tumors are complex, consisting of cells from the three germ layers: ectoderm, mesoderm, and endoderm. Due to their rarity, a detailed understanding of the diagnostic and therapeutic approach is crucial for effective management.
Methods: We present a case of a 2-year-old child with recurrent meningitis, who initially presented with hypotrophy, spastic paraparesis, and a lumbosacral dimple. MRI imaging showed a complex lesion from L1 to S1 with solid and cystic components, suggesting a lumbar abscess and associated spinal dysraphism. A laminectomy from L1 to S1 was performed, revealing a tumor strongly adhered to the nerve roots. Gross-total resection was achieved, and histopathological examination confirmed a Grade 1 immature teratoma.
Results: The child had a history of two episodes of meningitis at 9 and 18 months, treated with antibiotics. At 2 years old, following a third episode of meningitis, the child presented with spastic paraparesis and motor deficits in the lower limbs. MRI revealed a lesion from L1 to S1, with characteristics suggestive of a lumbar abscess and spinal dysraphism. Upon surgery, a dermoid sinus was found adjacent to S1, and gross-total resection of the tumor was performed. Histopathology confirmed the diagnosis of a Grade 1 immature teratoma.
Conclusions: Intramedullary immature teratomas in children are rare and should be considered in the differential diagnosis when assessing spinal masses. Despite nonspecific clinical features and the absence of spinal malformations in some cases, these tumors can present with complications such as recurrent meningitis. Accurate diagnosis and appropriate surgical management, including a thorough preoperative evaluation, are essential for optimal patient outcomes. Early recognition of rare spinal pathologies like teratomas is crucial for effective treatment and prevention of recurrent infections.

27. Management of Craniopharyngiomas: A Bicentric Study Over 13 Years

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Introduction: Although craniopharyngiomas (CP) are histologically benign, they pose significant risks due to long-term sequelae and high recurrence rates. This study aims to analyze the epidemiological, clinicopathological, radiological, therapeutic, and prognostic characteristics of craniopharyngiomas.
Methods: We conducted a retrospective, observational, bicentric study over 13 years (January 2010 – December 2022) in the Neurosurgery Departments of CHU Habib Bourguiba (Sfax) and CHU Fattouma Bourguiba (Monastir).
Results: A total of 19 cases were identified, with an average incidence of 2 cases per year. The median age at diagnosis was 25 years (range: 1–56 years), with 42.1% of cases occurring in children under 16. There was a strong male predominance (89%; sex ratio = 8.5). The most common clinical presentation included neurological symptoms, primarily intracranial hypertension syndrome with visual disturbances. Imaging confirmed the diagnosis in all cases, showing a suprasellar location, mixed solid-cystic consistency, calcifications, and a median tumor size of 44 mm. Histologically, 15 cases were of the adamantinomatous subtype.
Surgical resection was performed in 17 patients, with incomplete resection in 15 cases. Tumor progression occurred in 8 patients, with a median recurrence time of 2 years. Recurrent cases underwent reoperation, and only one patient received adjuvant radiotherapy. Postoperative complications included endocrine, visual, and neurological sequelae. The 5-year overall survival rate was 77.7%.
Conclusions: Despite their benign nature, craniopharyngiomas result in significant morbidity. A multidisciplinary management approach from diagnosis is essential to optimize outcomes and reduce recurrence rates.

28. Management of lung typical carcinoid tumors: a case report with literature review

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Introduction: Bronchopulmonary carcinoids represent a spectrum of heterogeneous neuroendocrine tumors arising in the lung which exhibit a significant increase in incidence over the last decades.
Typical carcinoid tumor (TCT) is a rare variety with slow growing profile. Due to paucity of data, there is no optimal treatment strategies for this entity.
Materials and methods: We present a case of lung TCT followed in the radiation oncology department, Farhat Hached hospital, Sousse, Tunisia in 2024.
Case presentation: A 43-year-old man with no medical history complains of hemoptysis. The thoracic CT scan revealed a suspicious centimetric endobronchial lesion. Bronchoscopy showed an obstructing polypoid formation of the lung basal pyramid. Biopsies were performed and the pathology report concluded to a well-differentiated neuroendocrine tumor G1 (typical carcinoid tumor): CK 7 negative, TTF1 negative, Synaptophysin negative and Ki67=2%. The patient underwent a lobectomy with lymph node dissection. The pathological examination revealed a TCT with a diameter of 1 cm, G1 with negative margins. No adjuvant treatment was indicated by the multidisciplinary team. A regular monitoring was performed including chromogranin A immunomarker measurement, a contrast CT scan including arterial phase and Gallium68-DOTA Somatostatin analogue PET if available. The patient is in complete remission after 3 months of follow-up.
Comments and conclusion: TCT are complex tumors with non-specific clinical and imaging features. Surgical resection remains the standard of care for operable localized disease with excellent long-term results. Octreotide and chemotherapy are normally used if a carcinoid syndrome or metastases are present. The role of adjuvant radiation therapy still controversial although positive resection margin status has prompted clinicians to consider its use unlike our case. Therefore, the management of these unusual tumors must be based on randomized trials results and require a multidisciplinary approach.

29. Cerebral Metastasis from Thyroid Carcinoma: A Case Report

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Introduction: Thyroid carcinoma rarely metastasizes to the brain, but when it does, it is associated with significant morbidity and poor prognosis. Brain metastases from thyroid cancer often present late in the disease course and require a multimodal treatment approach. We report a case of cerebral metastasis from thyroid carcinoma, emphasizing its clinical presentation, diagnosis, and management.
Methods: A 65-year-old female with a history of papillary thyroid carcinoma, previously treated with total thyroidectomy and radioactive iodine therapy, presented with progressive headaches, dizziness, and right-sided hemiparesis. Brain MRI revealed a solitary, contrast-enhancing lesion in the left frontal lobe with perilesional edema and mass effect. A stereotactic-guided biopsy confirmed metastatic thyroid carcinoma. The patient underwent surgical resection followed by adjuvant radiotherapy and systemic targeted therapy.
Results: Postoperatively, the patient showed significant neurological improvement. Radiotherapy helped in local disease control, and systemic therapy aimed at preventing further metastatic spread. However, despite aggressive management, disease progression was observed after several months, necessitating palliative care.
Conclusion: Cerebral metastases from thyroid carcinoma are rare but require prompt diagnosis and aggressive treatment to improve symptom control and quality of life. A combined approach involving surgery, radiotherapy, and systemic therapy remains the mainstay of treatment, though prognosis remains poor due to the advanced stage of the disease at diagnosis.

30. Mucinous carcinoma of the anal canal

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Introduction: Mucinous carcinoma is an exceptional disease. In this abstract, we will study the clinical characteristics of a series of 4 cases.
Patients and Methods: Between February 1993 and February 2025, 4 cases of mucinous carcinoma of the anal canal were managed by the Radiotherapy Department of Habib Bourguiba university hospital in Sfax. These 4 cases were referred to us in 2025. We will study their age, sex, circumstances of discovery, clinical and radiological presentation, histological diagnosis, TNM classification, and recommended treatment.
Results: The results are summarized in the table below:

Patient	1	2	3	4
Age + sex	56 M	57 M	50 M	62 M
Circumstances of discovery	Fistulized abscess	Anal fistula	Old budding lesion that has increased in size	Constipation with a sensation of anal mass without bleeding
Clinical presentation	Mass at the anal margin with fistulization to the skin RE*: circumferential invasion of the anal canal.	Fistula RE*:masswith extensionsphincter	Tumor is externalized at the anal margin. RE*: A tumor of the anal canal extending over at least 3 cm on the posterior surface with stenosis	Fistulous opening on the right buttock discharging pus. RE*: posterior circumferential induration of the anal canal
Radiological presentation	Pelvic MRI: voluminous semi-circumferential tumor of the anal canal, infiltrating the external and internal sphincter extension to the ischio-rectal fossa facing the intergluteal fold		Pelvic MRI not done	:Budding tissue thickeningof the anal canal Presenting anextension to the rectum. trans-sphincteric posterolaterale fistulous tract.
TNM Classification	T4N3M0	T4N0M0	T2N0M0	T4N0M0
Treatment plan	Palliative radiotherapy at a dose of 30Gy/ 10 fractions followed by evaluation.	Radiotherapy (60 Gy) - Chemotherapy	Radiotherapy (60 Gy) - Chemotherapy	Radiotherapy(60Gy) -Chemotherapy

*RE: rectal examination

Conclusion: Mucinous carcinoma is a rare pathology, affecting male patients aged between 50-62, discovered through a fistula or fistulated abscess. It is diagnosed at an advanced stage. There is no consensus for the treatment.

31. Multimodal Management of a Rare Mixed Small Cell Neuroendocrine and Adenocarcinoma of the Cervix: A Case Report

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Introduction: Small cell neuroendocrine carcinoma of the cervix (SCNECC) is a rare and highly aggressive malignancy, representing approximately 0.9–2% of cervical cancers that requires a multidisciplinary approach. We report a case of SCNECC with a mixed histological component, illustrating diagnostic and therapeutic complexities.
Case Summary: A 35-year-old woman presented with menometrorrhagia. Gynecological examination revealed a friable, bleeding cervical lesion with tissue loss. Biopsy confirmed a diagnosis of small cell carcinoma of the cervix. Imaging studies, including pelvic MRI and thoraco-abdomino-pelvic CT scan with brain imaging, staged the tumor as FIGO IIA, with an initial tumor size exceeding 4 cm and no parametrial invasion. The patient received four cycles of neoadjuvant chemotherapy with etoposide and carboplatin, resulting in a partial radiological response. Subsequently, she underwent an extended colpohysterectomy with pelvic lymphadenectomy. Histopathological analysis revealed a 12 mm residual mixed tumor comprising both adenocarcinoma and small cell neuroendocrine carcinoma components infiltrating the endocervical stroma and extending to the exocervix, with clear surgical margins and negative lymph nodes. Given the initial tumor size and deep stromal invasion (>1/3 thickness), adjuvant external pelvic radiotherapy was administered, delivering 45 Gy to the pelvis with a boost of 59.4 Gy to a para-aortic lymph node detected on treatment planning CT. Radiotherapy associated to moderate treatment-related toxicity. A pelvic MRI follow-up is planned two months post-radiotherapy to assess treatment response.
Conclusion: This case highlights the critical role of combined chemotherapy, surgery, and radiotherapy in managing SCNECC, emphasizing the need for vigilant surveillance due to its aggressive behavior.

32. Optimizing Multidisciplinary Head and Neck Tumor Boards in Cancer Care: Challenges and Innovations

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Background: Multidisciplinary tumor boards (MTBs) play a crucial role in head and neck cancer management, ensuring a comprehensive approach to patient care. However, logistical challenges often hinder their efficiency.
Objective : This study aims to report the changes and improvements implemented in our multidisciplinary tumor board for head and neck cancer at the Farhat Hached Hospital in Sousse.
Results & Challenges: The tumor board includes an ENT surgeon, a medical oncologist, a radiation oncologist, a nuclear medicine physician, and a pathologist. Unfortunately, no radiologist was available to participate. The MTB is scheduled weekly on Thursdays in the ENT department's staff room. A reminder email is sent to all participants and relevant medical departments each week. To streamline case submissions and discussions, a shared Google Sheets file was implemented. Each case must be registered in this shared file before the MTB to ensure structured discussions. Additionally, a standardized case report form (available in PDF and Word formats) must be completed beforehand to unify case presentations. After each MTB, therapeutic decisions and follow-up appointments are recorded in the shared file, which serves as a centralized platform for multidisciplinary coordination and facilitates patient management. From May 2, 2024, to December 31, 2024, a total of 156 cases were discussed. Between January 2, 2025, and March 13, 2025, an additional 60 cases were reviewed. The implementation of this structured approach has improved case management and decision documentation. However, the absence of a radiologist remains a limitation, affecting imaging interpretation during discussions.
Conclusion: This reorganization has optimized the efficiency of our MTB, improving communication and decision tracking. The shared Google Sheets file has proven to be an effective tool for facilitating patient management among different specialists. Future efforts should focus on integrating radiologists and further

33. Paraneoplastic Dermatomyositis: case report

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Introduction: Dermatomyositis (DM) is an autoimmune myopathy associated with typical skin lesions, the onset of which is sometimes associated with certain cancers and rarely manifests as a symptom of the paraneoplastic syndrome revealing the tumour disease.
Amyopathic dermatomyositis accounts for less than 20% of all cases of dermatomyositis and is often associated with breast cancer.
Objective: We report an observation of amyopathic dermatomyositis revealing a breast cancer relapse.
Observation: This is a 65-year-old M.B patient with a history of arterial hypertension on treatment who is being managed for infiltrating ductal carcinoma of the left breast grade SBR III, hormone receptor positive, Her2neu negative and Ki67 at 10% associated with local inflammatory signs and is therefore classified T4dN1M0. She was treated with neoadjuvant chemotherapy followed by left Patey and letrozole hormonal therapy. She was proposed for locoregional radiotherapy of the left thoracic wall. Prior to the start of radiotherapy, the patient was admitted to the dermatology department for a dermatosis which, on examination, showed erythema of the orbits, purplish erythema of the neckline, back, upper limbs and dorsal surface of the hands, and 03 fine erythematous nodules measuring 01 cm in size located on the mastectomy scar. There were no muscular weakness, dyspnoea, dysphagia nor dysphonia associated. The diagnosis was paraneoplastic amyopathic dermatomyositis. Biopsy of these nodules showed recurrence of a non-specific, triple-negative infiltrating ductal carcinoma on a mastectomy scar, with an updated negative extension

report. The patient underwent surgery for a local relapse. Pathological examination of the surgical specimen revealed recurrence of a modified SBR II non-specific multifocal infiltrating carcinoma on a mastectomy scar, hormone receptors positive for oestrogen and negative for progesterone, no overexpression of the membrane oncoprotein Her2 and a Ki67 cell proliferation index of 22%. In addition, she was put on 0.5 mg/kg corticosteroids for her dermatosis, with no significant improvement and persistent pruritic dermatological lesions.
She will have locoregional radiotherapy at a dose of 40 Gy and a BOOST of 13.35 Gy.
Conclusion: Paraneoplastic syndromes, which are sometimes indicative of certain breast cancers, are therefore a factor in both the diagnosis and monitoring of these tumours. When dermatomyositis occurs in patients with a history of breast cancer, a relapse must be sought as a priority.

34. Patients' Experiences During Cancer Disclosure

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Introduction: The disclosure of a cancer diagnosis is a critical and particularly distressing moment for both patients and healthcare professionals. This study aims to explore patients' experiences during the diagnostic disclosure and gather their suggestions to improve this sensitive process.
Patients and Methods: We conducted a cross-sectional study within the radiotherapy oncology department of the Salah Azaïez Institute in Tunis, from January to March 2025. Fifty adult patients, aged 18 years and older, with various non-metastatic cancers and a WHO performance status of 2 or less were included in the study. Participants were selected from both inpatient and outpatient consultations.
Data collection was carried out using a specifically developed questionnaire, validated by two medical specialists from the institute. These two experts assessed and confirmed the structural coherence of the questionnaire and its relevance to the study's objectives. The psychological status of the patients was evaluated using the "Hospital Anxiety and Depression Scale." Pearson and Spearman tests were used to study the correlation between anxiety levels and their predictors.
Results: The questionnaire had a 100% response rate. The median age was 57 years, ranging from 19 to 76 years. Among the patients, 42% came from rural areas, 78% were married, and 44% had a low socioeconomic status. Breast cancer was the most common diagnosis (68%). The time between the diagnosis disclosure and the study was between 2 and 5 years for 68% of patients, and less than one year for 26%. In most cases (66%), the diagnosis was delivered by a specialist physician, while 22% were informed by their general practitioner. At the time of diagnosis disclosure, 56% had the presence of family or friends and among these patients, 70% considered this support essential in coping emotionally and practically with the challenges they faced.
Although 40% of patients felt the diagnosis was communicated with sensitivity, an equal proportion wished for better delicacy, and a minority found the disclosure completely lacking intact. Emotional reactions varied: 44% experienced shock at the announcement, while 40% expressed immediate acceptance. Although 60% of patients received explanatory information about their illness, only 30% found it clear and easy to understand. Following the announcement, various psychological reactions were observed: 16% of patients went through a denial phase, while 44% experienced anxiety or depression. Nevertheless, 82% of individuals accepted their illness, while 2% continued to deny its existence.We observed a notable discrepancy between the need for psychological support, with 58% expressing this need, and the actual usage rate of only 8%. Additionally, 28% of respondents did not see the benefits of such support. Depression was more common among patients with low socioeconomic status, although the difference was not statistically significant ($p = 0.8$).
Conclusion: Our study confirms that diagnosis disclosure is a pivotal moment in the patient's therapeutic and personal journey, requiring clear information, professional empathy, and accessible psychological support.

35. Perceived spouses supportive and unsupportive behaviors in women with breast cancer during treatment

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Introduction: A breast cancer diagnosis is a life-altering event for patients and their partners, often profoundly affecting multiple aspects of the couple's life. Spousal support plays a crucial role in helping patients cope with the disease. This study aimed to assess the perceived partner response among women undergoing treatment for breast cancer.
Methods: A descriptive cross-sectional study was conducted among non-metastatic breast cancer patients receiving treatment at the Radiation Oncology Department of Farhat Hached Hospital in Sousse, Tunisia, over a two-month period (September–October 2024). Socioeconomic and clinical data were collected. Partner response was assessed using the validated Partner Responses to Cancer Inventory (PRCI).
Results: A total of 80 patients were included, with a mean age of 51.4 years [range 34–72]. Most patients (57.14%) resided in urban areas. The average duration of marriage was 27 years [range 7–46], with an average of 2.76 children per patient and an overall high marital satisfaction rate of 86%. Spousal support during the illness varied significantly: 54% of patients reported no change, 33% reported increased support, and 13% reported a decrease. Among the 88% of patients who underwent chemotherapy, only 40% felt adequately supported during treatment, and 18% reported a reduction in physical intimacy. A decline in sexual frequency was noted by 69% of patients, with hormone therapy accounting for only 28% of this reduction. Regarding surgical treatment, 41% underwent breast-conserving surgery and 59% underwent mastectomy. Communication emerged as a key factor influencing marital satisfaction, with 37% of patients reporting improvements. Factors positively associated with increased satisfaction included older age, a higher number of children, and longer marriage duration (contributing to a 30% increase in satisfaction). Additionally, future plans (42%), physical intimacy (33%), and effective communication (26%) were significant contributors to overall marital contentment. The post-diagnosis divorce rate was 4%, reflecting the emotional strain breast cancer can impose on relationships.
Conclusion: Breast cancer and its treatments have a profound impact on marital life. This study highlights the pivotal role of spousal support, communication, and relational stability in preserving marital satisfaction throughout the breast cancer journey.

36. Predictive factors of Acute radiation-induced skin toxicity in hypofractionated whole-breast irradiation

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Introduction: The aim of this study was to assess the incidence of acute radiation dermatitis in breast cancer patients treated with hypofractionated whole breast irradiation (HF-WBI) and to analyze its correlation with clinical and dosimetric factors.
Methods: A retrospective analytical study was conducted on 108 breast cancer patients who underwent breast-conserving surgery followed by

hypofractionated radiotherapy (40 Gy in 15 fractions over 3 weeks), with or without a boost to the tumor bed. Treatment was delivered using three-dimensional conformal radiotherapy (3D-CRT) at the Radiation Oncology Department of Farhat Hached Hospital, Sousse, Tunisia, between 2022 and 2024. Clinical, therapeutic, and dosimetric data were collected. Acute skin toxicities were assessed using the Common Terminology Criteria for Adverse Events (CTCAE v6.0) during treatment and two weeks post-radiotherapy. Univariate analysis was performed to identify clinical and dosimetric predictors of toxicity.

Results: The mean age was 55.8 years [range 34–73], with 24.07% (26 patients) younger than 50 years. Half of the treatment plans included coverage of axillary level III/IV and internal mammary chains. A tumor bed boost (13.35 Gy in 5 fractions) was administered in 53.7% of patients. Electrons were used in 57.4% of cases. Field-in-field technique and wedge filters were employed in 96.3% and 59.3% of plans, respectively. The mean Dmax was 107.3% [range 101–114].

The mean whole breast clinical target volume (WB-CTV) was 809.7 cm^3 [50.4–2441.8], and the planning target volume (WB-PTV) was 1000.5 cm^3 [104.3–2755]. The mean boost volume was 95.4 cm^3 [9.1–295.1]. The mean volumes receiving doses greater than 107% and 110% were 1.5% [0–14%] and 0.11% [0–2%], respectively, with WB-V110 being 0% in 83.33% of patients.

During radiotherapy, 46.3% of patients developed grade 1 dermatitis and 3.7% developed grade 2. Two weeks post-treatment, 7.4% of patients showed no skin toxicity, while 40.7% had grade 1, 50% had grade 2, and 1.8% had grade 3 dermatitis. No grade 4 toxicity was observed.

Significant factors associated with higher acute skin toxicity included age over the median (p=0.021), boost administration (p=0.05), higher Dmax (p=0.004), and WB-V110% (p=0.05). There was also a trend toward increased grade 2 dermatitis with the use of electrons (p=0.055).

Conclusion: This study confirms that hypofractionated whole breast irradiation is generally safe and well-tolerated. However, younger age, tumor bed boost, higher Dmax, and WB-V110% are significant predictors of increased risk for acute skin toxicity. These findings may help in optimizing treatment planning to minimize adverse skin reactions.

37. Primary Squamous Cell Carcinoma of the Breast: A Case Report

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Introduction: Squamous cell carcinomas of the breast are a subtype of metaplastic carcinoma, representing rare and aggressive malignancies often associated with a poor prognosis. Here, we report a case of squamous cell carcinoma of the breast in a patient followed at the Medical Oncology Department, Fattouma Bourguiba Hospital, Monastir.

Patient and Methods: In 2012, a 74-year-old female (RF) presented with a self-detected left breast nodule. Ultrasound mammography revealed a 1.4cm, ACR4-rated mass in the upper outer quadrant. Staging investigations (bone scintigraphy, abdominal ultrasound, chest X-ray) were negative for distant metastasis. She underwent upfront lumpectomy with axillary lymph node dissection. Pathological examination revealed a 2cm, triple-negative squamous cell carcinoma (SCC). Histological evaluation confirmed a diagnosis of primary SCC of the breast, a rare metaplastic carcinoma subtype. One of seven axillary lymph nodes was positive. The deep surgical margin was close (1mm), while other margins were clear. Adjuvant locoregional radiotherapy with a boost to the surgical bed, followed by adjuvant chemotherapy consisting of 3 cycles of FEC (Fluorouracil, Epirubicin, Cyclophosphamide) and 3 cycles of Taxol, was administered, completing June 2014.In May 2023, contralateral invasive lobular carcinoma (Luminal B, T1mN0M0) occurred, treated by Patey mastectomy (pT1mN0). Currently, recurrent lobular carcinoma is present; hormone therapy (Letrozole + Palbociclib) is planned.

Conclusion: Squamous cell carcinoma of the breast is a rare entity with non-specific clinical and radiological characteristics. Its prognosis remains poor, highlighting the need for further research to better understand its origin, predict its progression, and improve its therapeutic management.

38. Title: Radiotherapy and Body Mass Index: A Neglected Variable in Oncology?

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Introduction: Malnutrition is a commonly yet often underestimated complication in cancer care, especially during radiotherapy. Body Mass Index (BMI), a simple anthropometric indicator, is frequently overlooked in the assessment of treatment tolerance and nutritional risk. This study aims to assess the relationship between BMI (initial and final), tumor location, nutritional toxicity, and the use of oral nutritional supplements (ONS) during radiotherapy, and to identify the most vulnerable patient profiles.

Materials and Methods: A descriptive longitudinal study was conducted between January and March 2025 in the Radiotherapy Oncology Department at Farhat Hached Hospital. A total of 60 patients. Data collected included: initial and final weight, height, initial BMI (BMIi), final BMI (BMIf), absolute and percentage weight loss, presence of malnutrition, use of oral nutritional supplements (ONS), type of treatment received, tumor location, total radiation dose, and number of fractions. Statistical analysis was performed using SPSS version 20.

Results: The mean age of the study population (n = 60) was 58.6 ± 12.4 years (range: 26–84). The Sexe ratio was 1. Tumors were most frequently located in the pelvic region (50.0%, n = 30), followed by the head and neck (26.7%, n = 16), breast (18.3%, n = 11), and lung (5.0%, n = 3). Patients received exclusive radiotherapy (26.7%, n = 16), concomitant chemoradiotherapy (41.7%, n = 25), or other combined therapy protocols such as endocrine therapy (31.6%, n = 19). In this study, 76.7% (n=46) of patients were treated using Volumetric Modulated Arc Therapy (VMAT), while the remaining 23.3% (n=14) received radiotherapy with the 3D technique. The mean treatment duration was 47.05 days (standard deviation: ±26.67), with treatment periods ranging from a minimum of 4 days to a maximum of 134 days. Nutritional assessment showed a slight increase in BMI from 28.03 ± 6.31 kg/m² (n = 59) to 28.16 ± 10.54 kg/m² (n = 58) over the course of treatment. The mean absolute and relative weight losses were 2.36 ± 3.37 kg (n = 56) and 3.38 ± 4.76% (n = 55), respectively. Undernutrition was observed in 21.3% of patients (n = 13), with 61.5% (n = 8) classified as severe and 38.5% (n = 5) as moderate. Before treatment, 28.8% of patients (n = 17) had normal weight, 30.5% (n = 18) were overweight, and 33.9% (n = 20) were classified as obese (class I–III). These

distributions changed to 32.8% (n = 19), 37.9% (n = 22), and 22.4% (n = 13), respectively in post-treatment.
Oral nutritional supplements (ONS) were prescribed in 26.7% of cases (n = 16). A significant association was observed between tumor location and undernutrition (χ^2 = 11.296, p = 0.010; Cramér's V = 0.457). Spearman's Rho test showed a statistically significant negative correlation between age and percentage of weight loss (p = 0.31, r = -0.281). Positive correlations were found between the number of fractions and weight loss in kilograms (p = 0.31, r = 0.289; n = 56), as well as with the percentage of weight loss (p = 0.31, r = 0.289; n = 55). A highly significant positive correlation was also observed between initial weight and final BMI (p = 0.000, r = 0.289; n = 58). No correlation was found between sex and malnutrition (p = 0.244, r = 0.403) or between final BMI and the delivered radiation dose (p = 0.233, r = -0.159).
Conclusion: This study highlights the prevalence of significant weight loss and malnutrition during radiotherapy, particularly among patients with pelvic and head & neck tumors. Tumor location was strongly associated with nutritional status. Despite a high percentage of patients being overweight or obese at baseline, nearly one in four experienced clinically significant malnutrition. These findings support the systematic monitoring of BMI, weight loss, and early nutritional intervention — including ONS — as critical components of comprehensive oncologic care.

39. Role Of Radiotherapy In De Novo Stage Iv Breast Cancer: Experience From The Central Region Of Tunisia

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Introduction: De novo metastatic breast cancer is an aggressive disease, with a 5-year survival rate of only 14%. The objective of our study was to evaluate, in patients presenting with metastases at diagnosis, the impact of locoregional radiotherapy on overall survival (OS), to assess the influence of the metastatic site on the outcomes of radiotherapy, and to determine the optimal irradiation modalities.
Methods: We conducted a retrospective study including 221 cases of de novo stage IV breast cancer managed at the Department of Obstetrics and Gynecology of Farhat Hached University Hospital between 2006 and 2016.
Results: The median age of the patients was 52 years [range: 24–85]. The median tumor size was 6 cm [range: 1–20 cm]. Among the patients, 134 had T4 tumors (61%), and 88 had N2 nodal involvement (40%). Bone-only metastases were observed in 57.9% of cases. Locoregional radiotherapy was administered to 116 patients (52.5%). Compared to non-irradiated patients, those who received radiotherapy were more frequently oligometastatic (p = 0.003) and had fewer visceral metastases (p = 0.001). After a median follow-up of 36 months, overall survival at 1, 3, and 5 years was significantly improved in the irradiated group (p = 0.005, p = 0.014, p = 0.032). In cases of isolated bone metastases, radiotherapy was associated with a clear improvement in OS (p = 0.02, p = 0.037, p = 0.04). The radiotherapy modalities (dose, fractionation) did not show a significant impact on survival; however, effective locoregional control contributed to reducing local recurrences (p = 0.045). In multivariate analysis, factors influencing the benefit of radiotherapy included the presence of visceral metastases, a metastatic burden of more than three lesions, and achieving good local tumor control.
Conclusion: In de novo stage IV breast cancer, locoregional radiotherapy improves overall survival, particularly in patients with limited bone metastases, thus highlighting the importance of locoregional control even in the metastatic setting.

40. Satisfaction Among Cancer Patients Under going Radiotherapy: A Tunisian center experience

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Introduction: Patient satisfaction and their positive perception toward the delivery of care improves the overall healthcare experience which can potentially lead to better treatment outcomes. Our aim is to highlight the most valued features in our department and identify unmet patient needs.
Methods: A cross-sectional study was carried out on patients treated in the Radiation Oncology department of Farhat Hached Hospital in Sousse, Tunisia. Socioeconomic variables and clinical history were collected. The variable patients satisfaction was measured, anonymously, through a 14-item patient satisfaction survey, developed in-house to gain insights on patients' perception of care throughout their cancer journey.
Results: A total of 100 patients were included in this study. The average age of our patients was 56 [36-78]. The majority (58%) were from urban areas. Sixty three patients (63%) were from medium socioeconomic status. Treatment duration was predominantly under one month (51%). Most patients (63%) had afternoon sessions, and 80% relied on public transportation. Key findings include high satisfaction with the reception process (mean score = 4.4/5) and administrative clarity (mean score = 4.5/5). The medical and paramedical staff's courtesy and attentiveness were also highly rated (mean score = 4.4/5). Information provided about the treatment (objectives, side effects, session procedures) was deemed sufficient and clear, with an average rating of 4.8/5 for treatment information and 4.7/5 for procedural clarity. The competence of healthcare professionals received the highest rating (mean score = 4.9/5), while comfort in the treatment environment (waiting area, radiotherapy room) was rated 4/5. Patients were generally satisfied with the management of side effects, with an average score of 4.6/5 for follow-up care. The overall satisfaction with the radiotherapy treatment was also high, with a mean score of 4.4/5. Notably, 100% of participants would recommend our department to other patients. The open-ended responses suggested areas for improvement, including better appointment scheduling, reduced waiting times, a library in the waiting area, a psychologist on-site, and digital display boards for patient order.
Conclusion : This study high lights the overall high satisfaction levels reported by patients undergoing radiotherapy in our department. However, they do indicate some rooms for improvement, which underlines the importance of holistic care.

41. Spinal Metastasis of Nasopharyngeal Carcinoma: A Case Report

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Introduction: Nasopharyngeal carcinoma (NPC) is a malignant tumor with a high propensity for distant metastasis, particularly to the bones. Spinal metastases, although less common, can lead to significant neurological impairment and require early diagnosis and appropriate management. We report a case of spinal metastasis from NPC, highlighting the clinical presentation, imaging findings, and therapeutic approach.
Methods: A 56-year-old male with a history of NPC treated with chemoradiotherapy presented with progressive lower limb weakness and back pain. Neurological examination revealed paraparesis with

sensory deficits. Spinal MRI showed an osteolytic lesion at the T7 vertebra with epidural extension and spinal cord compression. A CT-guided biopsy confirmed the diagnosis of metastatic NPC. The patient underwent palliative decompressive surgery followed by adjuvant radiotherapy and systemic chemotherapy.

Results: Postoperatively, the patient experienced partial neurological recovery with improved motor function and pain relief. Radiotherapy contributed to local tumor control, and systemic chemotherapy targeted residual disease. Despite treatment, the disease progressed, leading to further deterioration and eventual hospice care.

Conclusion: Spinal metastases from NPC, though rare, can cause severe neurological deficits. Early diagnosis through imaging and histopathology is crucial for timely intervention. A multimodal approach combining surgery, radiotherapy, and chemotherapy remains the cornerstone of treatment, aiming to improve quality of life and functional outcomes.

42. Squamous cell carcinoma of the tangue in20-year-old girl.

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Abstract : Tongue cancers in young patients is very rare. The case of young girl with tongue cancer is reported here.

A 20-old girl with no specific family history presented to Habib Bourguiba's Hospital with a 6-month history of a painful right tongue mass. During the physical examination, a mass of about 1.5 cm in size was observed on the right lateral side of the tongue. No palpable lymph nodes were found in the neck. Magnetic resonance imaging (MRI) confirmed the presence of an enhancing mass (1.7x1.2x1.2 cm) on the right lateral side of the tongue. Pathological findings of a biopsy of the tongue lesion included a moderately well differentiated SCC. Thus, a partial glossectomy was performed with cervical lymph node dissection. The pathology report described a mass with dimensions of 2.5 cm with negative insufficient cancer margins. One node was involved with casular breakage. The final diagnosis was pT3N2aM0 tongue cancer.

She had postoperative radiotherapy with concomitant chemotherapy. She has a follow-up of 3 months since the end of treatment.

43. Case Report: The Role of Radiotherapy in the Management of an Inoperable Trichoblastic Carcinoma of the Parotid Gland

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Introduction: Trichoblastic carcinoma of the parotid gland is a rare and potentially aggressive adnexal tumour. Its management represents a clinical challenge due to the scarcity of available data regarding its demographic characteristics, prognostic factors, and unpredictable clinical course.

Case Report: We report the case of an 82-year-old hypertensive woman who initially consulted for a painful, fixed 4 cm swelling in the right parotid region, evolving over several years. Clinical examination revealed right facial paralysis and hypoesthesia in the V1 territory of the trigeminal nerve. Magnetic resonance imaging (MRI) showed a tissue mass centered in the right parotid lodge, measuring 58 mm, with the contiguous invasion of the zygomatic bone, the zygomatic process of the temporal bone, the ipsilateraltemporomandibular joint, as well as the masseter and temporal muscles and adjacent subcutaneous fatty tissues, also reaching the cutaneous plane in the portrayal region. Whole-body computed tomography (CT) did not reveal any distant metastases. A parotid biopsy confirmed the diagnosis of trichoblastic carcinoma.

After discussion at a multidisciplinary tumour board, the tumour was deemed inoperable due to its locoregional extension. Concomitant radio-chemotherapy was initially proposed, but chemotherapy was not performed due to the patient's advanced age and general condition. Therefore, exclusive radiotherapy was administered. Given the lack of precise consensus regarding the delineation of this tumour type, target volumes and organs at risk were defined based on case studies available in the literature.

The gross tumour volume (GTV-T) was defined using simulation CT and MRI images. The high-risk clinical target volume (CTV-T HR) corresponded to the GTV-T expanded by a 5 mm margin. The low-risk clinical target volume (CTV-T LR) included the CTV-T HR with an additional 5 mm margin, and the parotid lodge, and accounted for pathways of spread, anatomical barriers, and histo-molecular characteristics of the tumor. The low-risk nodal clinical target volume (CTV-N) encompassed bilateral nodal levels II, III, and IV, and unilateral level V. The planning target volume (PTV) was obtained by adding a 5 mm margin to each CTV. A dose of 70 Gy in 35 fractions was delivered to the high-risk PTV, and 56 Gy in 35 fractions to the low-risk PTV. Radiotherapy was delivered sequentially. Organs at risk (OAR) were delineated according to head and neck oncology guidelines, and dose constraints were respected.

Conclusion: The rarity and potential aggressiveness of parotid trichoblastic carcinoma make it difficult to establish precise therapeutic recommendations. While surgery remains the preferred approach, exclusive radiotherapy, in cases of inoperability, appears to be a relevant therapeutic option, although further evaluation through the in-depth analysis of additional clinical case series is needed.

44. Thyroid sarcoma

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Introduction: Papillary carcinoma is the most common type of all thyroid malignancies. Rarer types include anaplastic carcinomas, lymphomas and sarcomas. The sarcoma types observed in the thyroid glands are liposarcoma, leiomyosarcoma (LMS), and angiosarcoma. Primary LMS of the thyroid is a rare tumour and approximately < 0.5% of cases. We report a case of thyroid LMS.

Case report: A 43-year-old male presented with rapidly progressive neck swelling associated with mild neck discomfort and voice change. He had no previous history of radiation exposure, no significant medical illness or surgery, and no family history of thyroid cancer. The examination revealed a large hard nodule on right side of thyroid. Her thyroid function tests were within normal limits. Ultrasonography of the neck revealed solid hypoechoic nodule in right lobe of thyroid. Thoraco-abdomino-pelvien computed tomography (CT) did not reveal any other anomaly. He underwent thyroidectomy and bilateral neck node clearance. Histopathology showed high-grade sarcoma of the thyroid origin, likely LMS. The excision limits were invaded. He received radiotherapy (66 Gy) and chemotherapy. After 14 months he was alive with complete remission.

Conclusion: Primary LMS of the thyroid gland is a rare aggressive tumour of older people (mean age 66 years) with no gender predisposition and poor prognosis. Our patient is young. To date, it is not clear whether therapy is effective in prolonging survival. Multimodal treatment protocol is lacking. To modify the poor surgical outcomes, novel and effective adjuvant therapeutic strategies, based on a molecular approach and radiotherapy, are required.

45. Uncommon Spinal Involvement in Hodgkin Lymphoma: A Case of Recurrent Spinal Cord Compression

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Introduction: Hodgkin lymphoma (HL) primarily affects the lymphatic system but can occasionally present with extra nodal involvement. However, spinal cord compression remains an extremely rare manifestation.
Methods and results: We report the case of a 15-year-old female diagnosed with Hodgkin lymphoma. Four months after completing her chemotherapy regimen, she developed a gait disorder and urinary retention. Neurological evaluation and imaging studies confirmed spinal cord compression at the C7-D1-D2 level due to secondary localization of Hodgkin lymphoma. The patient underwent a spinolaminectomy, which initially improved her symptoms. However, one year later, disease progression led to tetraparesis with spinal involvement extending from C5 to D3. A complementary spinolaminectomy from C6 to D3 was performed, and the patient was referred for radiation therapy.
After three years of follow-up, the patient remains in good health with no motor deficits. The most recent imaging studies revealed no residual spinal involvement.
Conclusion: Spinal cord compression is a rare but serious complication of Hodgkin lymphoma. Early recognition and prompt surgical intervention, followed by appropriate oncological treatment, are crucial for optimizing patient outcomes.

46. Understanding Early-Stage Breast Cancer: A Growing Public Health Concern

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Introduction: Breast cancer is the most common cancer in women worldwide. The objective of our study is to assess the correlation between axillary lymph node involvement and various clinical, histopathological, and molecular factors of breast cancer.
Methods: This is an analytical and descriptive study conducted over a two-year period. A total of 160 patients were analyzed to investigate the epidemiology and correlation between various clinical and histological factors and axillary lymph node metastases.
The studied parameters included: patient age, tumor size, clinical lymph node involvement, histological type of the tumor, SBR histological grade of the tumor, hormonal receptors, presence of vascular emboli, HER2 neu overexpression, Ki-67, molecular subtype, and the presence of peritumoral in situ carcinoma.
Results: Eighty-three patients (51.9%) had axillary lymph node involvement at the time of diagnosis. Univariate analysis showed that lymph node involvement was strongly correlated with the presence of vascular emboli (p=0.02) and the SBR grade (p=0.01).
However, no correlation was found between lymph node involvement and other factors, including tumor size, hormonal receptors, HER2 neu overexpression, Ki-67, molecular subtype, and the presence of peritumoral in situ carcinoma.
Conclusion: These data suggest that the SBR grade level and the presence of vascular emboli are the most important factors in metastatic spread in breast cancer.

47. Vaginal Clear Cell Adenocarcinoma : Case report

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Introduction : Clear cell adenocarcinoma (CCA) of the vagina is a rare malignancy, particularly in adolescents. The prognosis is generally poor due to high rates of recurrence, highlighting the importance of early detection and aggressive treatment. **Case presentation :** A 16-year-old female with no prior medical history was referred from the gynecology department for evaluation and management of a suspected vaginal tumor. The patient reported a one-year history of abnormal vaginal bleeding, initially presenting as intermittent spotting, which had increased in frequency over the past month, prompting her to seek medical attention. Clinical examination revealed a large, friable, bleeding mass occupying the entire vagina, measuring approximately 10 cm. Histopathological analysis demonstrated features consistent with clear cell adenocarcinoma, confirmed by immunohistochemical staining. Pelvic magnetic resonance imaging (MRI) identified a suspicious tumor measuring 5.5 × 8 × 10 cm, filling the vaginal cavity without evidence of serosal invasion, but with superior extension toward the vaginal cul-de-sac. Further evaluation with a computed tomography (CT) scan revealed a mass measuring 94 × 66 × 74 mm, in close contact with the rectum but without signs of infiltration. Additionally, imaging revealed a solitary left kidney with compensatory hypertrophy; no distant metastases or secondary lesions were detected. Given the presence of a single kidney, chemotherapy was contraindicated. The patient was treated with exclusive radiotherapy, receiving a total dose of 45 Gy with a boost to the tumor area up to 67 Gy, delivered using volumetric modulated arc therapy (VMAT). Following radiotherapy, the patient reported significant clinical improvement. A follow-up MRI performed six months post-treatment demonstrated a complete radiological response with no evidence of residual tumor.
Conclusion : This case underscores the importance of considering clear cell adenocarcinoma in the differential diagnosis of young patients presenting with vaginal masses and abnormal bleeding. Early diagnosis and timely, appropriate management are crucial to improving outcomes in this rare and aggressive malignancy.

48. Vulvar cancer: the role and outcomes of radiotherapy in central Tunisia

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Introduction: Vulvar cancer is a rare but serious malignancy, predominantly affecting elderly women. While surgery remains the mainstay of treatment, radiotherapy plays a pivotal role, particularly in advanced stages or when surgical margins are compromised. However, its morbidity remains a concern.
Methods: A 20-year retrospective descriptive study (January 1995 – December 2015) conducted at the Department of Obstetrics and Gynecology, Farhat Hached University Hospital, Sousse. We analyzed the records of 102 patients treated for vulvar cancer, with particular attention to those who received adjuvant or exclusive radiotherapy.
Results: Radiotherapy was administered in 35.1% of cases, mainly for positive surgical margins, lymph node involvement, or advanced stages (III-IV). Radiotherapy contributed to a reduction in local recurrence, notably among patients at high risk. However, significant morbidity was observed, including postoperative infections and skin complications. Two-year overall survival was improved in patients receiving radiotherapy, although the five-year survival rate remained low (28%). Key prognostic factors identified were the adequacy of lymph node

dissection and the status of surgical margins.
Conclusion: Radiotherapy is a crucial adjunct to surgery in vulvar cancer management, especially in advanced stages or when prognostic factors are unfavorable. Careful patient selection and multidisciplinary collaboration are vital to maximize benefits while minimizing morbidity. Psychological support also remains essential to help patients cope with the burdens of combined treatment.

49. Weight Loss Impact on Radiotherapy accuracy in Nasopharyngeal Carcinoma

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Introduction/Background: Nasopharyngeal carcinoma is highly radiosensitive, making radiotherapy the cornerstone of treatment. Patients often experience tumor regression and weight loss as treatment lasts 6–7 weeks. This weight loss can alter patient positioning due to changes in body, potentially affecting treatment accuracy.
Methodology : A retrospective descriptive study was conducted in the Radiotherapy Department of Farhat Hached Hospital, Sousse. We included 23 patients treated with volumetric modulated arc therapy (VMAT) for nasopharyngeal carcinoma between April 2024 and December 2024. Weight loss (kg) and changes in external contour (cm) were measured at 40 Gy using simulation CT scans and CBCT imaging during treatment.
Results : Twenty three patients with nasopharyngeal carcinoma were included. The mean patient age at treatment was 49.3 years (range: 17–73 years). Among them, 26.1% were classified as N1, 65.2% as N2, and 4.3% as N3. Neoadjuvant chemotherapy was administered to 95.7% of patients, while 91.3% received concomitant chemotherapy. All patient were treated with simultaneous integrated boost volumetric modulated arc therapy (SIB-VMAT). At 40 Gy, the mean weight loss observed was 7 kg (range: 2–12 kg). Changes in external contour were detected in 21 patients (91.3%), with an average reduction of 0.2 cm (range: 0.2–1.5 cm). Despite these changes, only 5 patients (21.7%) underwent a new CT scan with adaptive replanning.
Conclusion: Weight loss during radiotherapy can compromise treatment accuracy in NPC patients. Monitoring anatomical changes and implementing offline adaptive replanning at 40 Gy may be crucial to maintaining treatment precision.