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Clinical Image

High-Grade Cutaneous Fibrosarcoma

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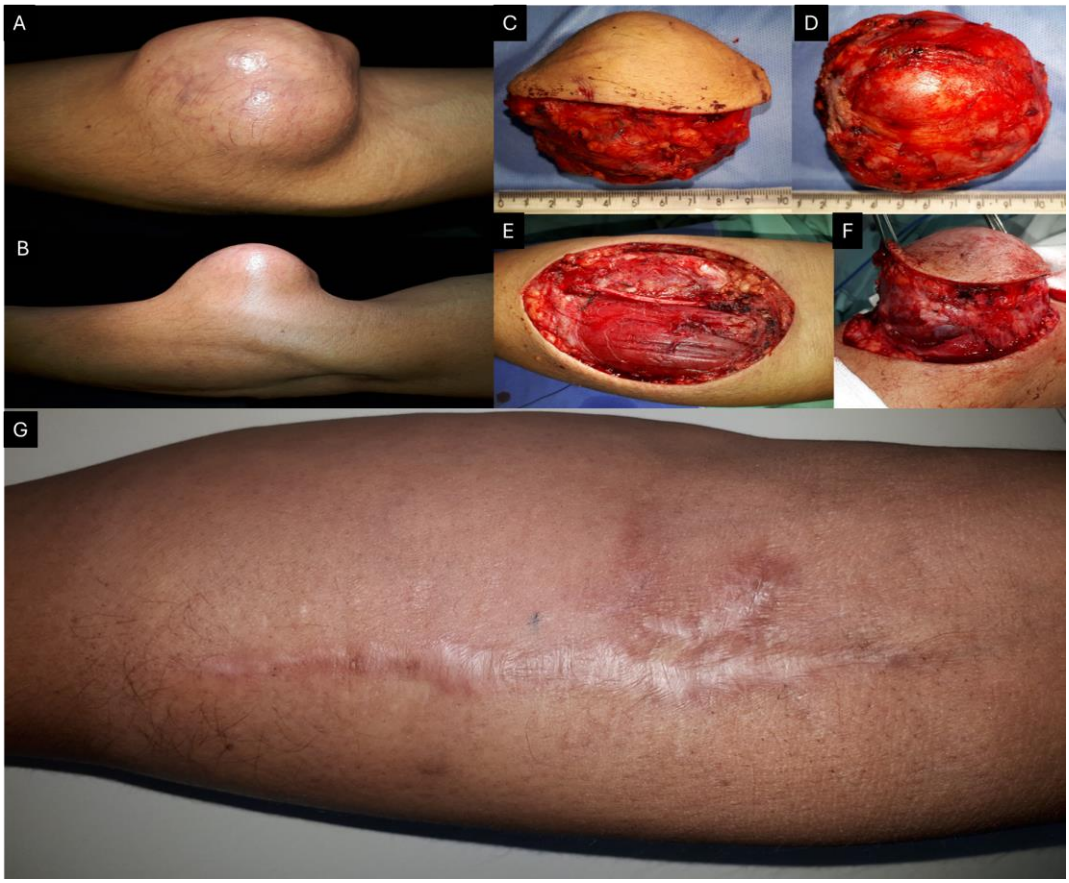

Figure 1: A. The preoperative lesion was described as a solid, fixed nodule, approximately 10 cm in size, located on the left forearm, with the superior view showing the 10 cm tumor. B. The preoperative lesion was a solid, fixed nodule, approximately 10 cm in size, located on the left forearm, with the lateral view highlighting the tumor expansion. C. During surgery, the intraoperative view showed the exposure of the tumor with preservation of adjacent structures. D. After removal, a posterior view of the tumor was recorded. E. The intraoperative view showed the tumor bed after

resection. F. The excision of the tumor mass was documented during surgery. G. The postoperative scar was observed two years after surgery, with no local recurrence in the forearm.

Cutaneous Fibrosarcoma is a rare and aggressive tumor that predominantly develops in soft tissue and bone [1]. Cutaneous fibrosarcoma is even rarer, with few cases reported in the literature. Here, we report a case of high-grade cutaneous fibrosarcoma. A 43-year-old male patient presented to the outpatient clinic for minor surgeries with a solid, fixed nodule, approximately 10 cm in size, located on the left forearm, with a five-month progression. On physical examination, the nodule had an irregular shape and hard, solid consistency, fixed to both superficial and deep planes (Figures 1A and 1B).

Following the consultation, complete resection of the lesion was indicated, with preservation of vascular, nervous, and muscular structures (Figures 1C to 1F). Whenever possible, a limb-sparing surgery was performed, meaning the affected limb was preserved for functionality. However, in extreme cases where the tumor has spread throughout the limb or involves more common sites such as bone, amputation (partial or complete) may be necessary [2].

Due to the cellular diversity of this group of neoplasms, histopathological evaluation is essential, as is immunohistochemistry (IHC) to establish a definitive diagnosis [3]. In fibrosarcoma diagnosis, immunohistochemistry following excision is crucial and considered the gold standard. In this case, the diagnosis was confirmed through histopathological and immunohistochemical analysis, revealing a high-grade fibrosarcoma. After complete resection with wide margins and diagnostic confirmation, adjuvant treatment with radiochemotherapy for four months was recommended. The patient underwent adjuvant radiochemotherapy and has been under follow-up for two years without signs of recurrence (Figure 1G).

Cutaneous fibrosarcoma is a rare tumor, with few cases reported in the literature. Its clinical presentation can be confused with other mesenchymal neoplasms, underscoring the importance of immunohistochemistry for a definitive diagnosis. Treatment involves surgical resection with wide margins, and adjuvant radiochemotherapy is recommended to minimize the risk of recurrence [4]. In this case, the patient responded well to treatment and remains free of recurrence after two years of follow-up.

Finally, this case highlights the importance of early diagnosis and a multidisciplinary approach in managing rare tumors like cutaneous fibrosarcoma. Surgical resection combined with adjuvant treatment proved effective, with the patient remaining recurrence-free in the long term.

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Supplementary Materials: None.

References

1. Knowledge Centre for Rare Cancers. Fibrosarcoma - symptoms, diagnosis, treatment [Internet]. Knowledge.rarecancers.org.au; 2023 [cited 2024 Sep 26]. Available from: https://knowledge.rarecancers.org.au.
2. Cleveland Clinic. Fibrosarcoma: Symptoms, Diagnosis & Treatment [Internet]. My.clevelandclinic.org; 2023 [cited 2024 Sep 26]. Available from: https://my.clevelandclinic.org.
3. Bourcier K, Le Cesne A, Tselikas L, et al. Basic knowledge in soft tissue sarcoma. Cardiovasc Intervent Radiol. 2019;42(9):1255-61. doi: 10.1007/s00270-019-02259-w.
4. Macmillan Cancer Support. Limb-sparing surgery [Internet]. Macmillan.org.uk; 2023 [cited 2024 Sep 26]. Available from: https://www.macmillan.org.uk.