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A Case of Recurrent Elbow Swelling Turning Out To Be a Soft Tissue Sarcoma

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I. INTRODUCTION:

Sarcomas are a rare and heterogeneous group of malignant tumors of mesenchymal origin that comprise less than 1 percent of all adult malignancies and approximately 10 percent of pediatric cancers. Approximately 80 percent of new cases of sarcoma originate from soft tissue, and the rest originate from bone.

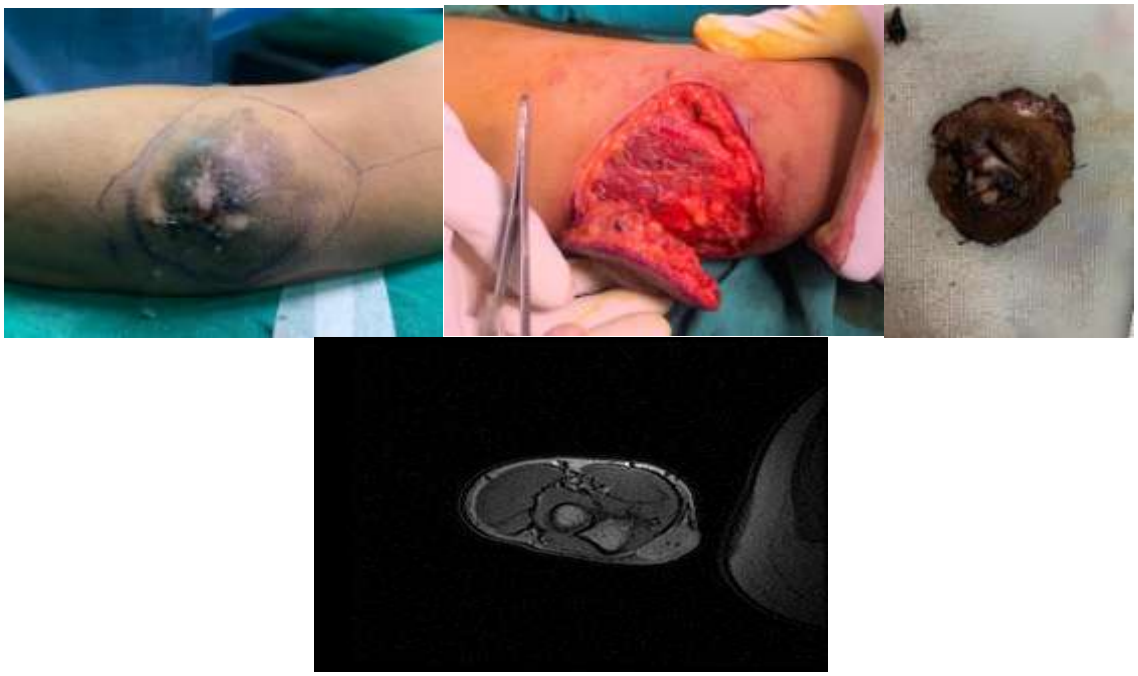
The histopathologic spectrum of sarcomas is broad, presumably because the embryonic mesenchymal cells from which they arise have the capacity to mature into striated skeletal and smooth muscle, adipose and fibrous tissue, bone, and cartilage, among other tissues. Although ectodermal in origin, malignant tumors affecting peripheral nerves are included because of similarities in their clinical behavior, management, and outcome.

II. CASE REPORT:

40-year-old male presented with complaints of swelling on the right elbow for 1 year and 6 months duration. Swelling was insidious in onset, initially small in size gradually progressed to the present size. Swelling is not associated with pain or discharge. No complaints of fever/abdominal pain/vomiting/breathlessness. History of similar swelling in the right elbow in the past and undergoing excision and biopsy of right elbow swelling twice in the past (2019 and 2020).

III. RESULTS:

Patient's general condition was fair and vitals were stable. Systemic examinations were unremarkable. All routine base line investigations were done and blood reports were unremarkable.



IV. DISCUSSION:

We report a case of 40 year old male with a soft tissue sarcoma over right elbow. Sarcomas are a rare and heterogeneous group of malignant tumors of mesenchymal origin that comprise less than 1 percent of all adult malignancies and approximately 10 percent of pediatric cancers [1-4]. Approximately 80 percent of new cases of sarcoma originate from soft tissue, and the rest originate from bone [1]. The anatomic distribution of soft tissue sarcomas in 4550 adults reviewed by the American College of Surgeons was as follows [5]:Thigh, buttock, and groin – 46 percent; Upper extremity – 13 percent; Torso – 18 percent; Retroperitoneum – 13 percent; Head and neck – 9 percent. According to the above rates of distribution, after the head and neck, upper extremities is the next lowest place of occurrence of Soft Tissue Sarcomas, along with retroperitoneal origin. In nearly all instances, sarcomas are thought to arise de novo and not from a preexisting benign lesion. Most cases have no clearly defined etiology, but a number of associated or predisposing factors have been identified. In addition to long-recognized genetic predisposition syndromes such as Li-Fraumeni syndrome and neurofibromatosis type I, there is increasing recognition that pathogenic germline variants may be present in a significant proportion of sarcoma patients [6]. Additional predisposing factors include retinoblastoma, exposure to radiation therapy or chemotherapy, chemical carcinogens, chronic irritation, and lymphedema. The most common presenting complaint for a soft tissue sarcoma is a gradually enlarging, painless mass. These tumors can become quite large, especially in the thigh and retroperitoneum. Some patients complain of pain or symptoms associated with compression by the mass, including paresthesias or edema in an extremity. Rarely, a patient may present with constitutional symptoms, such as fever and/or weight loss. While only 14 percent of all soft tissue sarcomas present in the upper extremity, 40 to 50 percent of all epithelioid sarcomas arise on the forearm and finger [7-9]. Tumors tend to grow along tissue planes and only rarely traverse or violate major fascial planes or bone. The growing tumor compresses surrounding normal tissue, leading to the formation of a so-called pseudocapsule that is comprised of compressed normal tissue with poorly defined margins and fingerlike tumor projections that infiltrate adjacent tissues.

We performed a Wide Local Excision of the swelling on the right elbow under Regional anaesthesia and sent for histopathological examination for study of morphology to confirm the histological diagnosis. The histopathological diagnosis turned out to be soft tissue sarcoma.

V. CONCLUSIONS:

Soft tissue sarcomas are a rare and heterogeneous group of tumors of mesenchymal origin, which includes more than 100 different histologic subtypes. most commonly present as an enlarging, painless mass in the extremities or trunk. The presence of distant metastatic disease at the time of initial diagnosis is uncommon but more likely in large, deep, high-grade sarcomas. If incisional biopsy is required, it should be carefully planned and performed by the surgeon who will be doing the definitive resection. A poorly placed initial biopsy may preclude subsequent surgical resection, preparation of flaps, and/or cosmetic repair, or result in the need for a more extensive surgery to encompass the biopsy site at the time of definitive resection.

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