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Case Report

Synovialosarcoma of the Chest Wall: A Case Report of a Huge Rare Tumor

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Abstract: *Introduction:* Synovialosarcoma is a malignant tumor originating in soft tissues, its localization in the chest wall remains exceptional and has a reserved prognosis. The management depends on an early diagnosis and the contribution of the biopsy is often necessary to codify a therapeutic approach in multidisciplinary concertation associating a surgery of resection with a large margin and a radio-chemotherapy often successful in the literature. The majority of articles have specified an average survival of 45% at 5 years for thoracic sarcomas without any precise data for the thoracic parietal form. Our study is a description of a case of synovialosarcoma of the thoracic wall taken in charge in the unit of thoracic surgery of our hospital center and it have been described all the clinical data, paraclinical, therapeutic and evolutionary with a review of the literature. One case included in the study of a men with 45 years old, with no surgical or medical history, who presented a huge mass of the axillary region operated 5 months ago with a surgical removal. The evolution was marked by a recurrence of a huge mass painful without inflammatory signs in a context of conservation of the general health, and whose CT imaging showed a non-invasive soft tissue mass in endothoracic and without costal lysis. Without contraindication to general anaesthesia, the patient underwent a surgery of total removal of the mass without conservation of the invaded muscles, and directed wound healing was done with Vaseline greasy bandages with programming of a skin graft after 3 weeks and programming of radiotherapy after total healing of the skin. Chest wall is a rare localisation of Synovialosarcoma and surgery represents the main treatment associated to radiotherapy.

Keywords: Chest Wall, Soft Tissue, Rare Tumor

1. Introduction

Malignant cancers of the thorax constitute a large group of tumors with different prognosis. They can originate from the mediastinum, lung and its pleura or from the chest wall. These cancers of the chest wall are relatively rare and in the form of synovialosarcoma is an exceptional entity given that the members are the site often affected whose prognosis remains poor and which depends on a complete resection surgery and a chemosensitivity often associated with the interest of a medico-surgical management including the reanimator, the surgeon and the oncologist. The objective of our study is to describe the case of a patient treated in our training for a huge synovialosarcoma of the chest wall.

2. Observation

Patient information: This is a 45 years-old male patient, operated 8 months ago for an undocumented thoracic mass who presented with a huge mass of the thoracic wall progressing over 5 months.

Clinical findings: The mass dimensions are 11 cm long / 10 cm wide / 8 cm deep, under the axilla, fixed in front of the costal plane, rigid, not painful to palpation or mobilization, without infiltration of the peripheral muscles and without signs of inflammation, evolving in a context of weight loss

estimated at 5 kilograms in 2 months. The rest of the clinical examination did not reveal any rib or vertebral pain on palpation, nor axillary adenopathy or other lymph nodes, nor hepatomegaly or splenomegaly, nor neurological signs, in particular no vertigo or motor or sensory deficit.

Diagnostic Assessment: The ultrasound of the mass showed a tissue mass dependent on the deep muscles without peripheral infiltration, the standard radiography, Tdm and Irm of the thorax revealed a tissue mass dependent on the muscle structures, locally infiltrating, This mass infiltrates the left latissimus dorsi muscle, the sub-scapular muscle and the serratus anterior muscle without lysis of the 5th, 6th and 7th ribs or the anterior border of the scapula. The biological evaluation did not show any abnormalities, in particular disorders of haemostasis, which would contraindicate the excision procedure, or stigmata of superinfection complicating the surgery locally.

Therapeutic intervention: The patient benefited from an excisional surgery under general anaesthesia, in lateral decubitus and an incision of 9 cm was made in front of the mass, after dissection of the superficial and then profound planes a resection with a margin of 4 cm was realized of a mass weighing 1.7 kilograms, no costal resection was performed and an adjustment of the profound planes for possible directed cicatrization and possible skin transplantation. After local hemostasis, an aspirating Redon drain was put in place with a greasy bandage, the bandage was changed once a day without signs of infection. The patient received antibiotic therapy according to the hospital's ecology, based on a combination of amoxicillin and clavulanic acid, and the shoulder was fixed with an elbow sling. The anatompathological examination of the surgical clamp revealed a malignant fusocellular proliferation with an hyperchromatic oval nucleus with large foci of necrosis with healthy exeresis limits, evoking a grade III synovialosarcoma according to the FNCLCC. The patient was declared discharged at 8 days and was scheduled for radio-chemotherapy session.

Follow-up and outcomes: The patient underwent skin graft after 3 weeks and programmed to radiotherapy after total healing of the skin. And recurrence was noted after 1 year of surgery.

3. Discussion

Thoracic sarcoma is a group of sarcomatous lesions of the lungs, mediastinum and chest wall [1, 2, 5, 6]. Synovialosarcoma is a tumor of soft tissue origin, and its localization in the chest wall remains exceptional [1, 3]. All descriptions in the literature of synovialosarcoma have confirmed a high frequency in young males, the clinical and revealing signs are always dominated by the appearance of a tumefaction progressively increasing in volume associated with localized pain. Ultrasonography of the mass, scannographic imaging and anatomopathological study were always sufficient to confirm the diagnosis without clarifying the primary origin of the lesion [4-10]. The 5-year survival of thoracic sarcomas has been estimated at 45% [5, 11, 12, 13].

The management of localized synovial sarcomas involves resection surgery with adjuvant radiotherapy if poor prognostic criteria are present [1, 2]. Prognostic criteria should be evaluated to determine the aggressiveness of the disease and to adapt the therapeutic management, including tumor size, mitotic index, proliferation index, necrosis areas and histological grade [2, 8, 15, 16]. Several studies have described radiotherapy and chemotherapy associated with a good clinical and radiological evolution without long follow-up [2, 4, 5, 14, 16].

All studies reports that Chest wall resection and reconstruction with synthetic polypropylene mesh and local muscle flaps can be performed as a safe, effective one-stage surgical procedure for a variety of major chest wall defects. [14-16].

4. Conclusion

Synovialosarcoma is a rare malignant tumor of the soft tissues, its localization in the thorax is rare and the prognosis depends on an early and multidisciplinary therapeutic management.

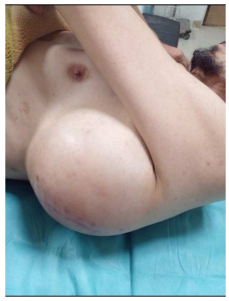

Figure 1. *Thoracic pariétal mass.*

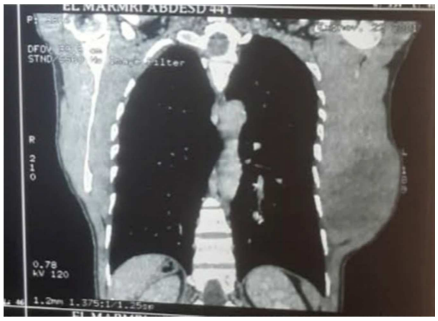

Figure 2. *Parietal mass with no costal invasion.*

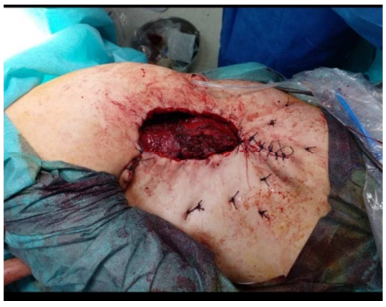

Figure 3. *The skin after surgical removal.*

Ethics Approval and Consent to Participate

Verbally consents obtained.

Availability of Data and Materials

All data are available and can be consult by contacting the corresponding author.

Competing Interests

The Authors declare no competing interests.

Authors' Contributions

Dr. M Gourti: Data collection
Dr. M Makloul: Supervision
Pr. E Maidi: supervision, validation
Thanks to the Staff of:
Surgery department of the hospital center
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Oncologic department of the hospital center

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