

THE DIAGNOSTIC APPROACH OF INTRAMUSCULAR HEMANGIOMAS OF THE CHEST WALL

Dr. Fatima Zahra Ammor^{1*}, Layla Belliraj¹, Hicham Harmouchi¹, Marouane Lakranbi^{1,2}, Yassine Ouadnoui^{1,2}, Mohamed Smahi^{1,2}

¹Department of Thoracic Surgery, CHU Hassan II Fes, Morocco.

²Faculty of Medicine and Pharmacy, Université Sidi Mohamed Ben - Abdellah, Fez Morocco.

***Corresponding Author: Dr. Fatima Zahra Ammor**

Department of Thoracic Surgery, CHU Hassan II Fes, Morocco.

Article Received on 20/12/2018

Article Revised on 10/01/2019

Article Accepted on 31/01/2019

ABSTRACT

The intramuscular haemangiomas of the chest wall are exceptional; we report the case of a young patient of 18 years, presenting a posterior thoracic parietal mass evolving since 2 months, whose radiological assessment allowed retaining the diagnosis of intramuscular hemangioma preoperatively, where the surgical arrangement is different from that of any other benign or malignant parietal tumors.

KEYWORDS: haemangiomas, radiological, malignant.

INTRODUCTION

Angioma or intramuscular hemangioma (IMH) is a benign vascular tumor whose malignant transformation remains exceptional and no metastasis has been described.^[1] Its clinical appearance can simulate a parietal tumor whose treatment and prognosis would be different; this highlights the differential diagnosis as a major step in the diagnostic process.^[2] From where the interest of this article which will emphasize the place of the paraclinical diagnosis in the etiological assessment of any mass of the chest wall.

OBSERVATION

HL, 21 years old, operated at 18 years of age for an ovarian cyst and followed for rheumatoid arthritis, referred to a thoracic surgery consultation for a dorsal swelling evolving for 2 months in a context of apyrexia and preservation of the general condition. In whom the examination found a patient in good general and haemodynamic condition, with a presence of a left inter scapulo vertebral mass of 4 cm long axis, opposite the 4th left intercostal space, hard, painful, movable relative to the superficial plane, fixed to the deep plane, without inflammatory signs (figure 1). The ultrasound of the soft tissue had objectified a muscular hypertrophy containing central micro calcifications. A thoracic CT injected had objectified the presence of a tissue mass at the expense of the muscular plane of the left scapular lodge, spontaneously isodense, enhanced after injection of the contrast with the presence of calcification in motte; evocative of an intramuscular hemangioma of the scapular lodge of 35 / 20mm long axis (figure 2).

The patient benefited from a large one-piece excision of the vascular mass that was at the expense of the trapezius muscle (figures 3, 4, 5), with ligation of the donor vessel, without intraoperative hemorrhage or a large defect. The histological study was in favor of an intramuscular hemangioma of small vessels. The patient was followed for 3 years without local recurrence.

DISCUSSION

IMH is a benign vascular tumor that affects mainly the adults; rare and represents from 0.7 to 1% of all haemangiomas (cutaneous, hepatic, cardiac, bony, ...);^[3] the quadriceps is the most common muscle on average 19% of all cases.^[4] The chest wall location remains exceptional. Watson and McCarthy showed that 73% of hemangiomas are congenital.^[5] Some cases of trauma, preceding the lesion, have been reported, suggesting for HIM origin an organized post-traumatic hematoma.^[6]

The diagnosis of IMH was made preoperatively in only 19% of cases;^[7] often deceived by tumors of the chest wall, given the clinical resemblance (lipoma, sarcoma, tuberculosis, hematoma) whose malignancy can only be ruled out after paraclinical assessment and sometimes histological evidence; which the treatment and prognosis would be different. This underscores the value of the etiological assessment during the diagnostic procedure for the chest wall masses.

More than 90% of IMH are poorly discovered by the radiological assessment. Standard radiographs are rarely contributive except in the case of calcified phleboliths; Ultrasonography presents the key examination,

highlighting a heterogeneous fusiform lesion, of mixed echostructure, containing fine calcifications, containing hypo / anechoic cavities corresponding to the vascular cavities, reinforced by doppler which makes it possible to affirm the vascular nature, by the presence of blood flow. Injected CT has demonstrated its place in diagnostic accuracy in small, localized HIMs, the most common case of HIM of the chest wall, by ruling out other differential diagnoses of chest wall masses. Arteriography has a place in preoperative embolization to control intraoperative bleeding.^[8]

Surgery of resection constitutes the treatment of choice of the IMH, it must be as complete as possible, allowing the histological diagnosis, thus avoiding the recidivism; whose rate varies to 18% for local recurrences and 7% of patients recidivate more than once.^[2,9]

CONCLUSION

This clinical case could illustrate the interest of the imaging in the diagnostic approach of the IMH, with rare localization notably thoracic; which makes it possible to rule out other differential diagnoses of chest wall masses whose therapeutic management remains different.



Figure 1: Clinical presentation of intramuscular hemangioma of the chest wall.



Figure 2: CT scan showing the presence of an isodense scapular intramuscular mass, enhancing after injection of the contrast



Figure 3: Intraoperative image of a haematic mass at the expense of the trapezius muscle.



Figure 4: Broad excision of intramuscular hemangioma with vessel ligation.



Figure 5: Image of intramuscular hemangioma after excision.

REFERENCES

1. Fergusson ILC. Haemangiomata of skeletal muscle. *Brit J Surg*, 1972; 59: 634-637.
2. Allen PW, Enzinger FM. Hemangioma of skeletal muscle. An analysis of 89 cases. *Cancer*, 1972; 29: 8-22.
3. Cohen AJ, Youkey JR, Clagett P, et al. Intramuscular hemangioma. *JAMA*, 1983; 249: 2680-2682.
4. Wild AT, Raab P, Krauspe R. Hemangioma of skeletal muscle. *Arch Orthop Trauma Surg*, 2000; 120: 139-143.
5. Watson WL, McCarthy WD. Blood and lymph vessel tumors. A report of 1056 cases. *Surg Gynecol Obstet*, 1940; 71: 569-88.
6. Tatlis A, de Groot KM, Wainwright H. Intramuscular haemangioma of the chest wall. A case report. *S Afr J Surg*, 1996; 34: 143-5.
7. Shallow TA, Eyer SA, Wagner FB. Primary hemangiomatous tumors of skeletal muscle. *Ann Surg*, 1974; 119: 700-40.
8. Kaplan P, Williams S. Mucocutaneous and peripheral soft-tissue hemangiomas: MR Imaging. *Radiology*, 1987; 163: 163-6.
9. Ono N, Yokomise H, Inui K, Wada H, Hitomi S. Intercostal hemangioma. *Thorac Cardiovasc Surg*, 1996; 44: 324-5.