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Abscess Angiofibroma of the Rectus Abdominis Muscle: About a Case at the Bouaké University Hospital

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Abstract

Introduction: Angiofibroma is a rare benign vascular tumor, composed of blood vessels and fibrous tissue (connective) with different locations. Localization at the level of the abdominal wall is rare. According to the literature, it is one of the cutaneous connective tumors. The diagnosis is suggested by the clinic and medical imaging, and confirmed by the anatomical pathology of the room after surgical excision. We report an unprecedented case of angiofibroma complicated by an abscess of the left rectus abdominis muscle in a 60-year-old patient. **Observation**: A 60-year-old patient, G6P6, does not consume tobacco or alcohol, has no history of particular family cancer, and was admitted for painful left paraumbilical mass evolving for 3 months associated with fever. She would have done a traditional therapy based on scarification, without improvement of the signs. It was in the face of the persistence of the mass with the secondary appearance of a fever, that his relatives took him to the surgical emergency. The clinical examination noted a good general condition, a fever and a fluctuating left paraumbilical mass measuring 9 cm by 7 cm in diameter. The abdominal CT scan with and without injection of contrast agent performed in emergency found an abscessed mass of the left rectus abdominis muscle and concluded that there was an abscessed cystic lymphangioma of the abdominal wall. Clinical examination and CT scans led to the diagnosis of an abscessed cystic lymphangioma of the abdominal wall. We have indicated tumor excision. The emergency surgical treatment consisted of a flat with suction of 400 cc of pus mixed with necrotic tissue. The post-operative effects were simple. Anatomical pathological examination of the necrotic tissues concluded that an angiofibroma was present. Nine years later, the tumor has not

recurred. Angiofibroma is a rare benign tumor, especially in its abdominal parietal location. Its evolution can be towards abscess.

Keywords

Angiofibroma, Abdominal Wall, Benign Tumor, Bouaké University Hospital

1. Introduction

Angiofibroma is a rare benign tumor with various locations. Nasopharyngeal and vulvovaginal locations are the most common. Pharyngeal localization is common in adolescent males and vulvovaginitis localization in middle-aged women [1] [2]. According to the literature, it is one of the cutaneous connective tumors. Abdominal parietal localization is rare [2] [3]. The diagnosis suspected by the clinic and medical imaging is confirmed by anatomical pathology after surgical excision [4] [5]. We report an unprecedented case of abscessed angiofibroma of the left rectus abdominis muscle in a 60-year-old patient.

2. Observation

60-year-old female housewife living in an urban area, G6P6, no tobacco or alcohol consumption, no particular family history of cancer. She was brought in by her children for a painful paraumbilical mass associated with fever (**Figure 1**). The illness began with the appearance of a left paraumbilical swelling with no associated signs. She would have undergone a treatment of unknown nature based on scarification, without success. The lump persisted, and a month later she developed pain associated with fever. She was taken by her children to the surgical emergency department for treatment in March 2016, *i.e.* 3 months after the onset of the signs. On clinical examination, her general condition was good, with a fever of 39˚C and good hemodynamic constants. Inspection of the abdomen revealed a left paraumbilical mass with shiny skin. Palpation revealed a fluctuating mass measuring 9 cm by 7 cm in diameter. The rest of the abdomen was soft. The biology work-up revealed an infectious syndrome with hyperleukocytosis of 18,000 white blood cells/mm^3, predominantly neutrophils. CRP was 50 mg/l, and was elevated.

Abdominal CT scan with and without contrast agent injection revealed a tumor of the anterior abdominal wall, an abscess involving the rectus abdominis muscle compatible with cystic lymphangioma, eliminating all other tumours from the abdominal wall. We therefore concluded that there was an abscessed cystic lymphangioma of the abdominal wall, with a scan diagnosis (**Figure 2**, **Figure 3**). We have indicated tumor excision. In front of the mass which was fluctuating, we made a large incision on the mass, and we noted a pus of about 400 cc of pus that we sucked out giving way to a large cavity. Before the pus was aspirated, we took part of it for cytobacteriological examination. Exploration of the cavity revealed a cluster of necrotic tissue. There was no hull. We did a resection of the necrotic

tissues and removed some tissues for anatomical and pathological examination. We made a Dakin wicking of the cavity with 20 sheets of compresses and then made the dressing. The dressings were made by wicking with Dakin. Staphylococcus aureus was the germ that was highlighted. The post-operative effects were simple. The patient was discharged on day 7. The wound healed on day 21. The results of the histopathological examination were in favour of an angiofibroma (Figure 4). We saw the patient again for 6 months for 2 years for a clinical examination. This examination does not have a recurrence of the tumor. And since 2016 to date, there has been no recurrence.

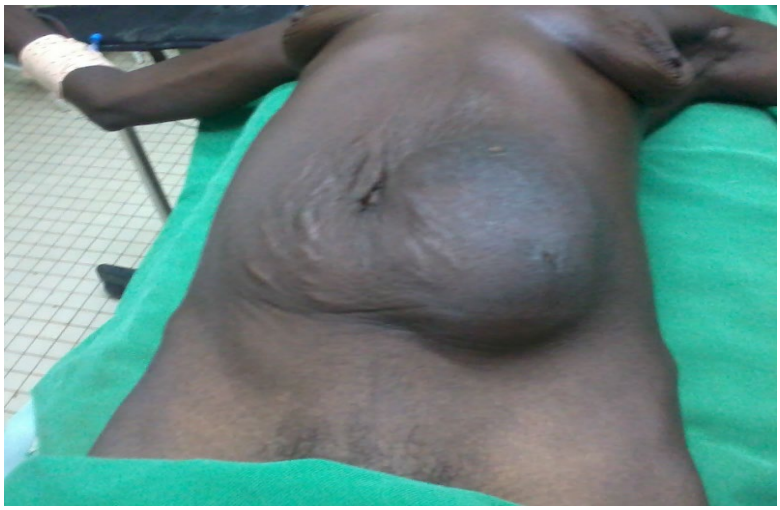

Figure 1. Image of a left paraumbilical parietal mass.

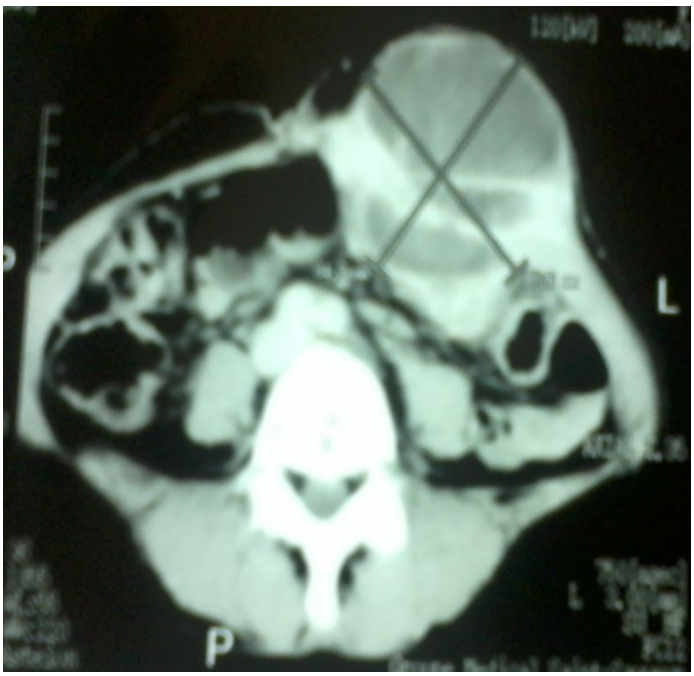

Figure 2. Abdominal CT scan in axial section, hypodense image suggesting an abscess of the rectus abdominis muscle.

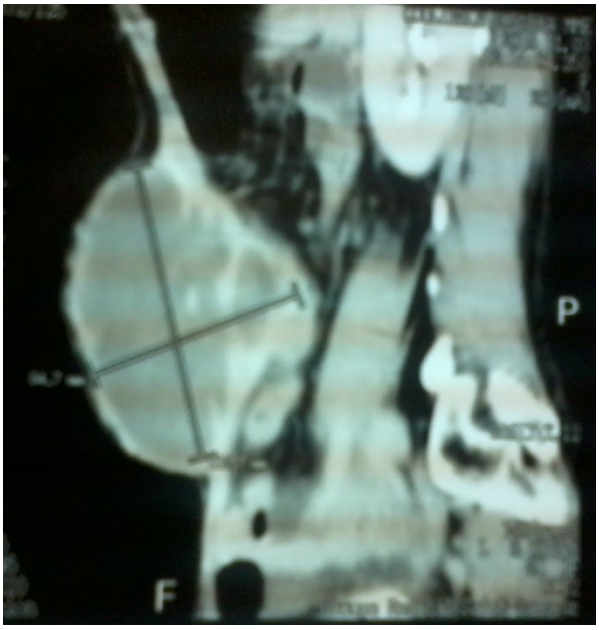

Figure 3. Abdominal CT scan in sagittal section, hypodense image suggesting an abscess of the rectus abdominis muscle.

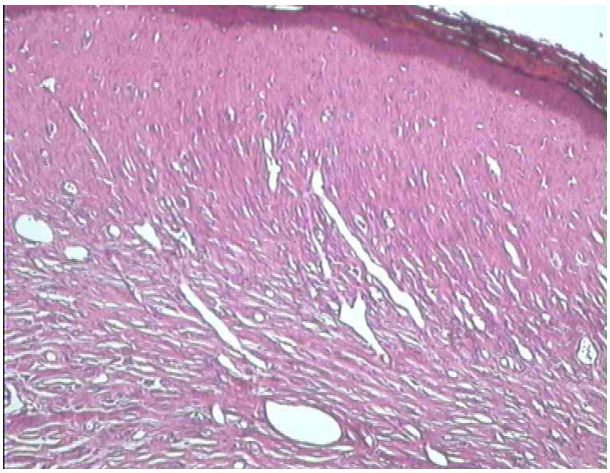

Figure 4. Histological appearance of an angiofibroma with collagen fibrosis with many vessels.

3. Discussion

Angiofibroma is a rare benign tumor with various locations, but usually nasopharyngeal and vulvovaginal [1] [5]. However, in the literature, rare cases of localization of the larynx, the pinna, the ear and the mandible have been described [4] [6] [7]. Localization at the level of the abdominal wall, especially the anterior abdominal wall, is rare. Its description is almost non-existent in the literature. According to the literature, it is one of the cutaneous connective tumors. The anterior abdominal wall can be the site of several types of conditions, including malformation, dystrophic, infectious and tumorous. But tumors of the anterior abdominal wall are rare and histologically benign most of the time. These tumors of

the anterior abdominal wall, in particular angiofibroma, are very rarely reported in the literature [3]. It appears that 96% of tumours of the abdominal wall occur in women, and especially in young women who are sexually evolving, of childbearing age or already mothers [1] [8]. Our subject was certainly female, but menopausal, so he was no longer of childbearing age. Apart from sex, we did not note any contributing factors. Angiofibroma, regardless of location, usually develops insidiously and reaches an enormous size before being detected. The maximum size ranges from 3.8 cm to 25 cm [1]. Our patient had a mass that gradually increased in size until it became painful. The presence of pain would be due to the infection (presence of fever and PNN hyperleukocytosis) of the tumor following the various scarification sessions during traditional therapy. Abdominal CT with and without contrast agent injection is an excellent complementary diagnostic method. It shows a homogeneous, hypodense, thin-partitioned tumor, not enhanced by contrast, in addition to its size, extensions, and relationships with surrounding structures [4]. If left untreated, there is a high risk of the lesion progressing to an enlarged and complication [1]. In our case, the tumor has grown in size and it is abscessed. This case has never been described in the literature. The treatment of angiofibroma, regardless of the location, is based on surgical excision [4] [5].

According to the literature, the treatment of any tumor of the abdominal wall, whether benign or tumor, is surgical. It consists of an excision of this tumor. This surgical excision must be complete to avoid recurrences as much as possible; it is done by laparotomy [2] [9]. It is followed by the anatomical and pathological examination of the operative specimen. We decided to treat this tumor like all other benign tumors of the abdominal wall. So, surgical treatment was chosen for this angiofibroma. After a wide incision of the area of fluctuation of the mass, we noted enough pus. We evacuated the abscess as well as resection necrotic tissue, and there was no shell. We did bandages by wicking with Dakin until healing.

We note here the importance of the histopathological examination of the operative specimens. It allowed us to confirm the benign nature of the tumor and to correct the diagnosis.

The histopathological examination is the key examination for the diagnosis of tumors. It has differentiated angiofibroma from other benign tumours of the abdominal wall: cystic lymphangioma, solitary fibrous tumour, neurofibroma, spindle-cell lipoma, aggressive angiomyxoma and angiomyofibroblastoma [2].

4. Conclusion

Angiofibroma is a rare, benign tumor that is progressive. Localization at the level of the abdominal wall is also rare. The evolution can be towards an abscess. The treatment is resolutely surgical. Diagnostic confirmation is provided only by histopathological analysis of the operative specimen.

Statement of Ethics

This article was made with the patient's informed consent.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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