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Liposarcoma Retro-Peritoneal in the General Surgery Department of the Hospital of the District of the Commune IV

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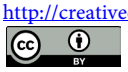
Abstract

Retroperitoneal soft tissue sarcomas in the retroperitoneal/intra-abdominal regions represent 10% - 15% of all cases of soft tissue sarcoma. Liposarcomas, which are the most common histological type, account for 20% - 45% of retroperitoneal/intra-abdominal sarcoma cases, and 20% of liposarcomas cases are primary retroperitoneal liposarcomas. Surgical resection in case of malignancy remains the treatment of choice for liposarcomas, according to the guidelines of most major international companies. Our goal was to improve the management of retroperitoneal liposarcoma. This was a 65-year-old patient, with no medical or surgical history, who was referred to us for abdominal swelling, in whom clinical and paraclinical examination found retroperitoneal liposarcoma stage IV, and the surgical treatment consisted in making a tumor reduction. **Conclusion:** Retro-peritoneal liposarcoma is an undervalued malignant tumor, and the diagnosis is often late.



Keywords

Retroperitoneal Liposarcoma, Diagnostic Delay

1. Introduction

Retroperitoneal soft tissue sarcomas in the retroperitoneal/intra-abdominal regions represent 10% - 15% of all cases of soft tissue sarcoma. Liposarcomas, which are the most common histological type, account for 20% - 45% of retroperitoneal/intra-abdominal sarcoma cases, and 20% of liposarcomas cases are primary retroperitoneal liposarcomas (PRPLS) [1].

According to the World Health Organization, liposarcoma is divided into four histological types: a) well-differentiated liposarcoma (WDLPS), b) dedifferentiated liposarcoma (DDLPS), c) myxoid/round-cell liposarcoma (MLPS), and d) pleomorphic liposarcoma (PLPS) [2].

Due to the large retroperitoneal space, patients with retroperitoneal liposarcoma present obvious symptoms at a very late stage, when the mass grows sufficiently to compress or invade neighboring organs [3].

It is difficult to detect signs or symptoms before tumors increase in volume, because the most common symptom is palpable mass, which occurs only when the tumor is bulky [4].

Surgical resection in cases of malignancy remains the treatment of choice for liposarcomas, according to the guidelines of most major international companies [5].

Up to 24% of patients with liposarcoma will have recurrent disease, regardless of grade or subtype, and 70% of patients with retroperitoneal liposarcoma will die from adverse events related to recurrence [6].

By presenting this clinical case, our objective was to improve the management of retroperitoneal liposarcoma.

2. Clinical Case

This was a 65-year-old patient who was referred to us for abdominal swelling.

The onset of symptomatology goes back to 8 months marked by vomiting, abdominal pain, a notion of weight loss estimated at 10 kg.

He had no known medical-surgical history.

On general examination, we found palmoplantar-conjunctival pallor, edema of the lower limbs, weight 53 kg; height 1.70 m; BMI: 18 kg/m^2.

On physical examination, we found an abdominal mass, extending from the right hypochondrium to the pelvis through the periumbilical region, not painful, smooth surface, measuring 18 cm/18 cm.

We thought of a mesenteric tumor.

The abdomino-pelvic CT was in favor of a tissue lesion process, calcified at the expense of the right peritoneal leaflets; intimately attached to the liver and right kidney, compressive on the surrounding structures and the right ureter re-

sponsible for a slight hydronephrosis upstream (see Figure 1).

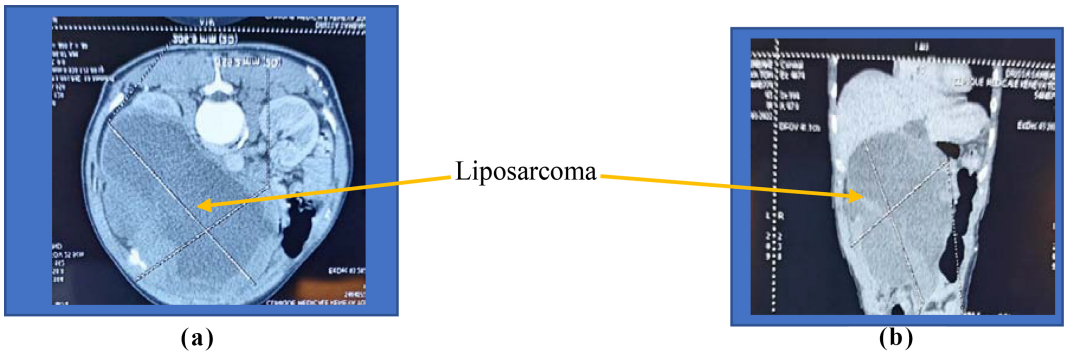


Figure 1. (a) Axial cutting; (b) Frontal cut.

The hemoglobin level was 6 g/dl; the blood type was B+.

After the transfusion, the hemoglobin control was at 10 g/dl, the patient was operated. In intraoperative, we found a retro peritoneal tumor, invading the ascending colon, the transverse colon, the liver, the right kidney, the tumor was classified T4N2M1 or a clinical stage IV (see Figure 2).

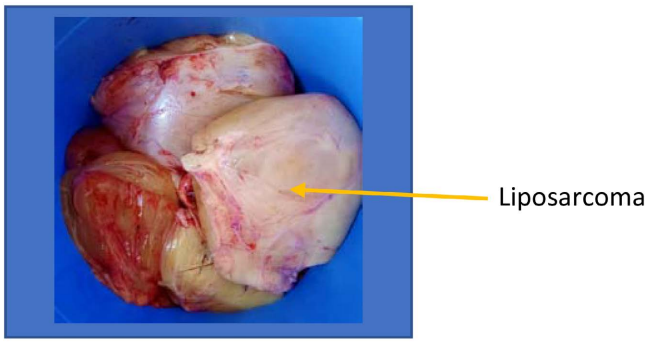


Figure 2. Post-operative tumor reduction piece.

The surgical procedure consisted in making a tumor reduction to decrease the compression of the neighboring organs and have a pathological result.

The result of the pathological examination was in favor of a grade I liposarcoma (see Figure 3 and Figure 4).

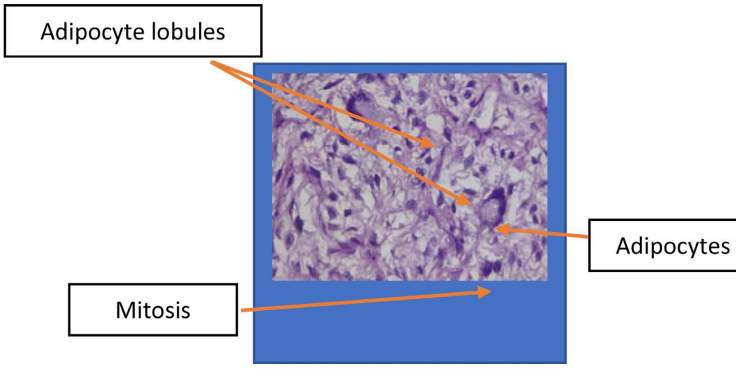


Figure 3. Histological image of a retroperitoneal liposarcoma at high magnification.

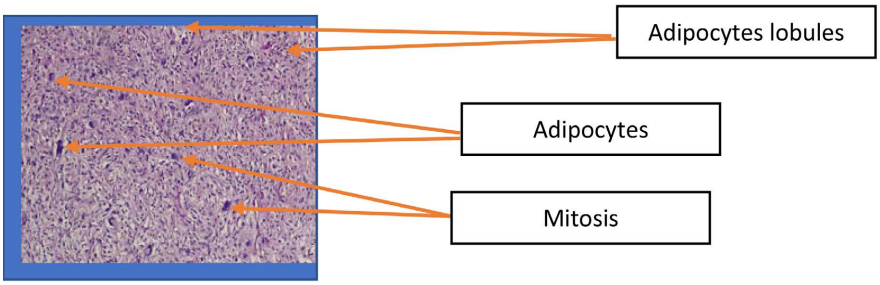


Figure 4. Histological image of a retroperitoneal liposarcoma at a low magnification.

After 5 days of hospitalization the patient was released, he died two months after the surgery.

3. Comments and Discussion

3.1. Frequency

In this clinical case, we wanted to contribute to the notification of the clinical case of retro-peritoneal liposarcoma, in doing so we participate in the understanding of this entity whose early management conditions the therapeutic success.

Through this clinical case, we highlight one of the most important indicators in the Malian health system; the delay in treatment.

If cancerous pathologies are detected early, treated early, this would significantly increase the survival of patients.

According to Rozan Marjiyeh [7], in the retroperitoneal cavity, retroperitoneal liposarcoma (RPL) is the most common primary tumor and liposarcoma can occur in any region where fat is present, and about 30% of tumors occur in the retroperitoneal cavity; 35% come from perirenal fat which represents 40% of all retroperitoneal sarcoma tumors.

We think that, liposarcoma is an undervalued malignant tumor, sending it from the operating rooms to the anatomo-pathological examination would improve the notification of cases.

Shu Wang [8], reported that primary retroperitoneal liposarcoma (PRPLS) occurs mainly in patients aged 60 - 70 years, without sexual predominance.

Chi Xu [9], found that, liposarcoma usually occurs in the age groups of fifty and sixty years without a clear relationship with sex or race.

Our patient was male, 65 years old. The age group 50 and over would be a risk factor compared to other population groups.

Patients with primary LRP develop symptoms in advanced stages of the disease, mainly due to the mass effect on adjacent organs, and less frequently, by organ invasion [7].

Our case had abdominal pain, vomiting, weight loss estimated at 8 kg, abdominal mass.

Rozan Marjiyeh [7], showed in its literature review of 24 patients that, Abdominal computed tomography (CT) was the most commonly used radiological

examination, performed for all patients, while abdominal ultrasound (US) and abdominal magnetic resonance imaging (MRI) was used as additional imaging for two patients. Preoperative diagnosis by a proven liposarcoma biopsy was available in four patients.

According to Shu Wang [8], ultrasound, computed tomography and magnetic resonance imaging (MRI) are particularly important, as the first clinical signs of liposarcoma are not obvious.

Moreover, YI-XI WU [1], in its study showed that at present, many immune markers are used to diagnose and identify diseases. However, it is not clear whether common markers of retro-peritoneal primary liposarcoma (PRPLS) (S-100, vimentin and Ki 67) are specific for different types of PRPLS.

Rozan Marjiyeh [7] reported that the amplification of MDM2 and CDK4 oncogenes is the standard for the diagnosis of well-differentiated liposarcoma and dedifferentiated liposarcoma; round myxoid/cell liposarcoma is characterized by the translocation of the FUS and DDIT3 genes, and pleomorphic liposarcoma is diagnosed by the presence of lipoblasts.

We performed an abdomino-pelvic scanner for our clinical case, the result was in favor of a tissue lesion process, calcified at the expense of the right peritoneal leaflets.

3.2. Classification

According to Rozan Marjiyeh [7], liposarcoma is classified into 4 types: The anatomical distribution of liposarcoma subtypes depends on the histological type; while well differentiated and dedifferentiated subtypes are more common in the retroperitoneal cavity, pleomorphic and myxoid subtypes are more common in the extremities.

As for Adarsh Vijay [10] liposarcoma is classified into 5 types: Based on morphological characteristics and cytogenetic aberrations, liposarcomas are classified into 5 types. These are 1) well-differentiated liposarcoma (WDLPS); 2) dedifferentiated liposarcoma (DDLPS); 3) myxoid/round-cell liposarcoma (MLPS); 4) pleomorphic liposarcoma (PLPS); and 5) mixed liposarcoma. WDLPS is also classified into 3 subtypes: lipomatous, sclerotic and inflammatory Liposarcoma.

3.3. Processing

Complete resection is the gold standard for the treatment of this disease [9].

Although the best treatment choice is a complete surgical resection, some tumors are not resectable at diagnosis due to distant metastasis or invasion of vital structures [9].

In our case, we performed tumor decompression reduction of neighborhood organs.

The largest prospective monocentric study by Lewis *et al.* [11] suggested that the median survival of patients who underwent complete resection with markedly negative margins was 103 months, compared to 18 months for those who underwent incomplete resection.

3.4. Radiation Chemotherapy

The authors have different opinions about the benefit of radio-chemotherapy against liposarcoma.

For (YI-XI WU) [1], chemotherapy and radiotherapy are ineffective for the majority of liposarcoma cases, with a 10% chemotherapy response rate.

Gunderson [12] found that radiotherapy, including preoperative, intraoperative and postoperative, can be used to treat liposarcoma to improve quality of life and tumor-free survival.

Banvalot *et al*. [13] showed limited benefit in some types, where neoadjuvant radiotherapy followed by surgery was superior to surgery alone.

3.5. Tumor Recurrence

Rates of local recurrence after five years, after complete resection are about 50% for well differentiated retroperitoneal liposarcomas and 80% for differentiated retroperitoneal liposarcomas, Adarsh Vijay [10].

Rozan Marjiyeh) [7] in her study showed that tumor size was not a risk factor for recurrence. Larger tumors did not recur after R0 surgical resection, while smaller tumors did, as early as 3 months after resection. The tumour subtype (myxoid/mixed) and whether or not contiguous organs had been resected were risk factors for tumour recurrence.

Singer *et al*. [14] demonstrated that tumor histology type, tumor grade, and contiguous organ resection were significantly associated with tumor recurrence, while tumor size was not an independent risk factor.

Low-grade myxoids (<5% round cell component) and well-differentiated variants are about 90%. High-grade variants, such as pleomorphic, round cell (>5% round cell component), and dedifferentiated tumors, have 5-year survival rates of 30% to 50%, 60% and 75%, respectively [14].

4. Strategies to Control Liposarcoma Retrperitoneal

1) Strengthening the education of the population;

2) Strengthening communication for behavior change compared to retroperitoneal liposarcoma;

3) Developing staff training in early diagnosis and management of retroperitoneal liposarcoma;

4) Equipping health structures with diagnostic means adapted to retroperitoneal liposarcoma;

5) Investing in the fight against cancer in general and liposarcoma in particular;

6) Promoting health insurance systems to increase the rate of early diagnosis and management.

5. Conclusions

Retro-peritoneal liposarcoma is an undervalued malignant tumor, the diagnosis

is often late, and the signs are mainly related to the invasion or compression of neighborhood organs.

The anatomo-pathological examination occupies an important place in the diagnostic approach of this pathology.

Treatment is palliative at an advanced stage, and the prognosis depends on the early diagnosis.

Ethics

The Ethics Committee has agreed to write this article.

Declarations

The parents of the patient accepted the realization of this scientific work.

Conflicts of Interest

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

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