Giant Liposarcoma of the Omentum Mimicking an Ovarian Tumor. A Case Report

Mehdi Soufi · Jalil Mdaghri · Said Benamr · Mohammed K. Lahlou ·
Rahal Massrouri · Abdelhamid Essadel · El hamid Mohammadine ·
Ahmed Taghy · Abdelatif Settaf · Bouziane Chad

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Abstract Liposarcomas are common soft tissue of the retroperitoneum and the limbs. They are rarely found in the greater omentum. Once in the peritoneum, these can become enormous and can be mistaken for ovarian mass. The authors report a case of giant omental liposarcoma revealed by an abdominal mass and genital prolapse due to the compression syndrome. A complete macroscopic resection of the omental tumour was performed. A post operative chemotherapy was also prescribed. A description of this clinical presentation in the preoperative assessment, the characteristics of this tumour, together with the use of adjuvant chemotherapy are discussed in this report.

Keywords Liposarcoma · Great omentum · Surgery · Chemotherapy

Introduction

The primary liposarcoma of the omentum is extremely rare, hence the reason why its incidence is still unknown. It often affects adults aged 34 to 38 years [1]. According to literature review, only 15 cases have been reported.

A case of primary greater omentum liposarcoma in a 65 years old woman is reported below. The peculiarity

of this work lies in the infrequency of its anatomical localization.

Observation

This is the case of a 65 years old woman with no particular antecedents, who has been suffering for 2 months from a diffuse, painful, abdominal distension, alongside constipation. The constipation occurred with no sign of digestive haemorrhage or transit troubles, and was then preceded by a loss of weight and anorexia. Further examination revealed an abdominal distension and a hard painful mass of 30x30 cm in the abdomen and pelvic area. The mass caused compression to the pelvic organs responsible for the genital prolapse. Laboratory investigations showed slight anaemia and elevated levels of lactic dehydrogenase 1,000 IU/l, and CA125 235 IU/ml. The ultrasound examination showed a nodular retroperitoneal abdominal pelvic mass. The CT scan revealed a giant, heterogenic intraperitoneal mass (30×27×19 cm) pushing the aorta, the vena cava, the digestive and the urinary structures (Fig. 1). As a result of these observations, an ovarian tumour was suspected. Nevertheless, a percutaneous biopsy was not carried out. At laparotomy, further assessments showed an intraperitoneal tumour with a gelatinous aspect in the greater omentum (Fig. 2). A tumorectomy, an omentectomy and an appendectomy were therefore carried out. The immediate post operative follow up was uncomplicated. The final histopathological report showed undifferentiated liposarcoma. Immunolabeling for S-100 was positive, but negative for CD117 (C-KIT) and CD34, specifically in the well differentiated tumor tissue samples, thus ruling out a gastrointestinal

J. Mdaghri · S. Benamr · M. K. Lahlou · R. Massrouri ·
A. Essadel · E. h. Mohammadine · A. Taghy · A. Settaf · B. Chad
Surgery B, Avicenne Hospital,
Rabat, Morocco

M. Soufi (✉)
Faculty of medicine, University Mohammed first,
Oujda, Morocco
e-mail: drsoufimehdi@hotmail.fr

Fig. 1 CT scan: Heterogeneous lesion is observed within zones of fat, solid and cystic density that entirely occupy the abdominal cavity, displacing retroperitoneal structures dorsally

stromal tumour. Based on the histology and immunoprofile, a diagnosis of the dedifferentiated liposarcoma was established. The patient was referred to medical oncology where chemotherapy with doxorubicin was offered. Currently, after eighteen months of follow-up, the patient is asymptomatic and disease free.

Discussion

Liposarcoma is one of the most common types of malignant tumours usually arising in soft tissues. Common sites are in the deeper soft tissues, especially in the gluteal region, thighs, popliteal fossa, shins and the retro peritoneum [1]. The intra abdominal localization is rare [2]. The greater omentum primary liposarcoma is

Fig. 2 Preoperative picture showing the giant intraperitoneal mass

a malignant tumour with an average survival rate not exceeding 2 years, in spite of surgical excision. There is also a masculine predominance [3]. The symptomatology is dominated by pain and abdominal distension. The signs of compression are: vomiting, constipation and urinary signs [4]. Contrast radiography may show displacement or compression on adjacent organs. However, ultrasonography or CT scanning may differentiate them from cystic lesions [5]. The CT scan allows for a positive diagnosis due to its density values in the HOUNSFIELD scale [6].

Macroscopically, it is often a soft, voluminous, well limited, irregular yellowish mass, often with gelatinous components, as observed in our case. Microscopically, however, there are different types of liposarcoma. On one hand, it may well be adult differentiated and myxoid but on the other hand it may be differentiated pleomorphic with rounded cells together with the undifferentiated form [7]. The prognosis of these tumours depends essentially upon this classification. The complete surgical excision is the recommended treatment for the primary greater omentum liposarcoma; this is often difficult due to the size of the tumour and its link with the vascular structures. Adjuvant chemo- and/or radiotherapy have been carried out and the role of adjuvant treatment remains controversial. According to findings, chemotherapy seems a promising solution in treating liposarcoma [8]. Hence, chemotherapy was given to this patient with a local control of the long-term disease. The five year survival rate in all the different types of liposarcoma is of 10 %; however it is very weak in the undifferentiated types [8].

Conclusion

The primary greater omentum liposarcoma is rare. The tomodesitometry allows for the diagnostic confirmation. The complete surgical excision remains the best actual treatment for this pathology. The chemotherapy seems promising in liposarcoma; however the prognosis does depend on histological types.

Competing interests The authors declare that they have no competing interests.

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