GIANT LOWER LIMB MYXOID LIPOSARCOMA CAUSING DEEP VEIN THROMBOSIS, COMPLICATED WITH PULMONARY EMBOLISM

CASE REPORT

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ABSTRACT

Liposarcoma (LPS) is one of the most common histologic subtypes of adult soft tissue sarcoma. Here, we report the case of a 52-year-old woman complaining of shortness of breath, chest pain, painful leg swelling 24 hour before presentation at our institution.

Despite a vascular, soft part ultrasound and CTA, which suspected a voluminous haematoma, a huge tumour was found and a myxoid liposarcoma was identified by surgical excision and a histological examination, respectively.

Keywords: myxoid liposarcoma, vein thrombosis, pulmonary embolism

Introduction

Liposarcoma (LPS) is written in literature as the second most frequent soft tissue sarcoma, expressed as a percentage around 14%-18% of all soft tissue sarcomas. Despite its name, the origine of liposarcomas is from primitive mesenchymal cells, not from fat cells. It has 3 subtypes: well differentiated, myxoid, myxoid round cell, and pleomorphic. (1) Pure myxoid LPS is the most common type of all LPS. Round cell LPS is specified as a form of myxoid LPS and it is the second most common type of all LPS. Pleomorphic LPS is defined as a distinct category, there are similarities with other pleomorphic sarcomas than to other LPS. (2,3) A myxoid liposarcoma causing pulmonary embolism by extrinsic compression on the deep vein of the limb is not a common pathology, there are only exiguous cases documented in the literature.

We report a case of a female patient with a huge liposarcoma localized in the left groin, exerting extrinsic compression on the femoral deep vein, causing thrombosis and pulmonary embolism.

Case report

A 52-year-old female was hospitalized...
to our clinic with chest pain, dyspnoe, left leg edema. The patient reported a fall 24 hour previously at home, after that noticed the onset of symptomatology with increasing in size of the thigh. The physical examination shows a normostenic, conscious, cooperative patient with correct orientation in space and time, blood pressure 140/90 mmHg, pulse rate 111/ min, oxygen saturation 97% without oxygen support, swelling of the left lower limb, warm skin, palpable pulses. Further, a mass with a diameter of 30 cm in the left lower limb was palpable with a durable consistency, which could not be pushed, painless. The patient has no pathological history and no hometreatment. From the laboratory analyzes, we observed that the value of the D-dimer were above 5ug/ml.

She underwent a rapid ultrasonographic evaluation in the emergency department of our hospital. Color Doppler flow imaging revealed no color flow signal in the left femoral vein, further a soft part ultrasonography describe an extensive haematoma. CTA of the left lower extremity revealed an expansive mass with no homogeneous aspect after administration of the contrast agent, dimension of 13/18/30 cm, aspect of a haematoma on the level of the proximal thigh, which seeps and disorganize the surrounding muscles. Iliac and femoral artery with positive blood flow, superficial femoral artery moved to medial becouse of extrinsic compression by the tumour, lumen reduction with 50%.

A femoral neck fracture by performing radiography was excluded. The patient was started anticoagulation therapy by intravenous injection, 10.000 units in every hour, with control of aPTT. A progressive but not significant fall of the plasmatic level of the hemoglobine was observed by the daily blood-analysis control, that was the cause of a surgical intervention on the third hospitalization day. Surprisingly, instead of a haematoma, a huge tumour was found,
which was successful removed. A ligature of the deep femoral artery and the femoral nerve was necessary because of tumoral invasion of them by the tumour. (Figure 4). The removed tumour weighed 5 kilogram. (Figure 5).

The postoperative evolution was favorable, the patient was let off on the 10th postoperative day. The definite diagnosis of myxoid liposarcoma was identified via excisional biopsy and histological analysis. (Figure 6, 7) The patient is under oncological treatment with radiotherapy and chemotherapy.

**Discussions**

Liposarcoma (LPS) is defined as one of the most common type of adult soft tissue sarcoma. As the predominantly location we can mention the extremities and hips, rarely retroperitoneal, intra-abdominal, pelvic, paraspinal, chest and abdominal wall. Liposarcoma of the extremities has better prognostic than liposarcoma located at other sites. (4)

The fact, that neoplasms redound
thromboembolic events by hypercoagulability, extrinsic compression or occlusion of vessels, is well known. However, many screening algorithms in detecting occult cancer in patients presenting with deep vein thrombosis or pulmonary embolism were without coincidence. (5)

In pulmonary embolism a diagnostic strategie is very important. Fortunately we have more possibilities: generally we begin with clinical scores, testing for D-dimer, echocardiography, and computed tomography or ventilation-perfusion scintigraphy. Ultrasonography of the extremities is important to detect deep vein thrombosis, but deep vein thrombosis is present in just half of patients with manifest pulmonary embolism.(5) A correlation between deep vein thrombosis and pulmonary embolism, and between tumour and deep vein thrombosis must be detected. Often a detailed diagnostic can be cheat, in this case a clinical status of the patient and the experience of the clinician could be essential in view of the diagnostic and treatment-management.

A clinician must suspect any time that a tumour or an unknown mass can be a cause for a thromboembolic event. (6) In our case all of the paraclinical investigations showed a huge haematoma in the left limb, despite a significant haemoglobin fall. (7,8) It was a difficult decision in view of the treatment-management. A benefit-injure ratio was deliberate between anticoagulation therapy and bleeding risk. Finally we came to the conclusion that an adequate anticoagulation therapy for PE is essential with a strict control of the plasmatic level of the hemoglobin and the value of the hematocrit combined with careful physical examination of the patient.(9)

A retrospective study from Italy, that analysed 3025 patients with soft tissue sarcomas between January 1980 and December 2005 showed that the patients with primary liposarcoma had a 10-year incidence of distant metastases between 5% and 21% in case of different subtypes. Also they submit that totally tumor excision with negative margins should be the most important and effective treatment strategy. An other study showed that patients who had soft tissue metastasis remain disease free at 15 to 59 months after their first metastasis. Patients with round cell liposarcoma had a significantly higher chance for metastatic disease (P = .02). Furthermore, soft tissue metastasis had an 11 times higher chance of dying than those without metastasis. (10)

A large open surgical resection and radiotherapy in conjunction with chemotherapy showed a better prognostic. Sometimes a voluminous tumour size can be lower with preoperative radiotherapy or radiochemotherapy with spectacular results. As final treatment possibility are new adjuvant medical treatments, if surgical management is not feasible. In this case the most common liposarcoma subtypes are high-grade and large round cell liposarcoma.(2)

Conclusions

Myxoid liposarcoma of the lower limb causing deep vein thrombosis and pulmonary embolism is not a common combination. A quick and accurate diagnostic of deep vein thrombosis and pulmonary embolism, and the cause and correlation between these is essential for the efficiency of the treatment. The first intention treatment of liposarcoma is the large surgical resection and radiotherapy, sometimes in combination with chemotherapy. A lateness in diagnosis and planning of treatment strategy of liposarcoma often results in very poor prognosis.

References

4. Kilpatrick SE, Doyon J, Choong PFM, Sim FH, Nascimento AG. The clinicopathologic spectrum of myxoid and round cell


