# Leiomyosarcoma of femoral veins



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Responsible for venous obstruction is a lot of causes, among which area benign or malignant lesions. These lesions obstruct the veins by either intraluminal or extraluminal involvement or by external pressure, due to tumors growing in the surrounding tissues. Owing to its rarity, the Authors report on a case of leiomyosarcoma of the left femoral vein treated in their Unit.

KEY WORDS: Venous obstruction, vascular leiomyosarcoma, leiomyosarcoma of veins.

## Case report

A 75-year-old man was admitted in our Unit with a picture of phlegmasia cerulea dolens of the left limb. Physical examination revealed a painful, cold, swollen and cyanotic limb with hyperesthesia and motility disturbances and no peripheral pulses.

History revealed that eight months before a firm nontender mass appeared in the left inguinal region with progressive development of edema and a burning sensation in the homolateral limb. Biopsy of a lymph node from that region revealed metastatic involvement of this node by a leiomyosarcoma of unknown origin.

Due to the above findings our patient was submitted to treatment with anticoagulants and local radiotherapy being under close supervision for the next six months. During this time CT and MRI of the whole body twice and once respectively were performed but with no findings of metastases or a primary tumor elsewhere. All this time of follow-up the patient was on a very good condition without pain and some improvement of edema of the limb until twenty days before his admission in our hospital, when deterioration of edema as well as of pain especially during walking was observed. Anticoagulant therapy showed no improvement of the above symptoms. Emergency phlebography revealed complete obstruction of the common femoral vein. These findings forced us to proceed with an emergency operation.

# Operation

To create a good operative field two incisions, the one middleline subumbilical and the other vertical over the inguino-femoral region, were performed. The common, external and internal iliac veins were dissected free from surrounding structures as well as the common femoral vein after excision of the one half of the quadricep muscle. Two centimeters proximal to the saphenofemoral junction, a hard mass on the femoral vein adherent to the purulent surrounding tissues was found.

After diligent debridement of all dead tissues, excision of the common femoral vein with the mass an end to end anastomosis was performed, between the external iliac and distal part of the common femoral veins using a graft from the saphenous vein of the other limb. The postoperative course was excellent and the patient was discharged the eighth postoperative day being under anti-coagulant treatment for a four-month period. Today more than a year after the operation is doing well working hard.

#### Discussion

Malignant tumors of the veins are rare <sup>1</sup>. On the other hand the vast majority of them originating from the wall of the veins are leiomyosarcomas, consisting of proliferation of atypical smooth muscle cells intermingled with a large number of blood vessels <sup>3</sup> producing complete obstruction. Leiomyosarcomas comprise 1.3% of these tumors generally and are radiosensitive <sup>3</sup>.

The most common site of leiomyosarcomas is the infe-

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rior vena cava <sup>2</sup> probably accounting for 75% of the cases <sup>3</sup>. Other sites where leiomyosarcomas have been reported are large veins such as femoral, saphenous and iliac veins <sup>2</sup> including also smaller ones <sup>3</sup>. Early diagnosis of leiomyosarcoma of the veins is difficult <sup>1</sup>. This is because signs of obstruction it produces, is often attributed to thrombosis. Awareness of the disease as well as frequent use of CT, MRI and phlebography can improve early diagnosis and treatment. As for our patient we considered better to proceed with a biopsy of the inguinal mass for purposes of diagnosis the answer being that of a metastatic leiomyosarcoma and to submit the patient to anticoagulant therapy and local radiotherapy because GT scan and MRI were negative. Although for a six month period the general condition of our patient was good, we forced to operate on him, after complete obstruction at the level of common femoral vein was revealed by phlebography and because of the danger of venous gangrene.

Replacement of veins can be done by grafts such as Dacron or PTFE but it is batter to use a suitable vein graft from some other part of the body such as internal jugular or saphenous veins.

As for our case we used a saphenous vein graft to join the gap between external iliac and femoral vein because the probability of infection is less. The patient received no postoperative treatment and is doing very well more than one year after surgery.

#### Riassunto

Moltissime sono le cause responsabili di ostruzioni venose. Queste possono essere di natura sia benigna che maligna. Le suddette lesioni ostruiscono le vene sia per via intra che per via extraluminale oppure per compressione delle loro strutture dall'esterno. In questo ultimo caso, in particolare, si fa riferimento a dei tumori (intesi come lesioni occupanti spazio e non necessariamente come lesioni neoplastiche) che si accrescono nei tessuti circostanti le vene stesse. Gli autori presentano, a causa della sua rarità, un caso di leiomiosarcoma della vena femorale sinistra, trattato chirurgicamente nella loro Unità.

### References

- 1) Bengoechea-Gonzalez E: Leiomyosarcoma of iliac and femoral veins. Arch Surg, 1965; 91:623-624.
- 2) Roy C, Beaujeux R, Mutler D: Leiomyosarcoma of the femoral veins: Imaging findings. AJR, 1993; 160:1125-126.
- 3) Vavela-Durau J, Oliva H, Rosai J: Vascular leiomyosarcoma. The malignant counterpart of vascular leiomyoma. Cancer, 1979; 44:1684-691.