THE MANAGEMENT OF THE GREAT SAPHENOUS VEIN THROMBOPHLEBITIS

INTRODUCTION

Varicose veins represent a pathology frequently encountered in the daily medical practice. Besides chronic venous insufficiency, the thrombosis of the great saphenous vein and/or its side branches represents one of the most important complications. Although considered, until few years ago, a relatively benign disease the thrombophlebitis of the great saphenous vein rises serious concerns regarding the possibility of extension to the deep venous system and secondary, pulmonary embolism.

The main cause of the saphenous vein thrombosis is the varicose degeneration. Beside the varicose veins, other causes of saphenous vein thrombosis are the hypercoagulable states (protein C or S deficiency, anti-thrombin III deficiency, activated protein C resistance to factor V Leyden). The paraneoplastic syndromes (pancreatic, lung, breast, colon or skin carcinoma mainly) were also found in patients with saphenous vein thrombosis. The superficial thromboflebitis may precede the diagnosis of the malignancy, as its first sign, and may be recurrent (thromboflebitis migrans).

Taking in consideration its diverse causes, the treatment of the great saphenous vein thrombophlebitis is different. In the varicose veins thrombosis the treatment is surgical in almost all cases, but in the superficial thromboflebitis caused by a hypercoagulable state or a malignancy, the treatment is mainly medical, identical with the treatment of a deep venous thrombosis.

SUMMARY:

Although considered a relatively benign disease, the great saphenous vein thrombophlebitis is a serious concern for many specialists, taking into account the possible complications: extension of thrombosis to the deep venous system and the risk of pulmonary embolism. Our study included 527 patients with variable forms of great saphenous vein thrombophlebitis, admitted in our clinics during a period of 10 years (2000-2009). In this study we present the chosen therapeutic options, the incidents/ complications that we encountered, the therapeutic results and our recommendations for optimal results.

Key Words: great saphenous vein, thrombophlebitis, varicose veins.

TROMBOFLEBITA SAFENIANĂ INTERNĂ- ATITUDINE TERAPEUTICĂ

Rezumat:

Deși considerată o afecțiune relativ benignă, tromboza safeniană internă reprezintă o potențială patologie severă datorită posibilității sale complicații: extensia la nivelul sistemului venos profund și a riscului de embolie pulmonară. Studiul nostru include un număr de 527 pacienți cu tromboza venei safene interne cu diferite localizări, internați între anii 2000-2009 în Clinica I Chirurgie și Clinica Chirurgie Vasculară. Sunt prezentate opțiunile terapeutice, incidentele și complicațiile întâlnite, rezultatele obținute precum și atitudinea terapeutică recomandată în funcție de localizarea și etiologia trombozei.

Cuvinte cheie: tromboflebită, vena safena internă, boala varicoasa.
MATERIAL AND METHOD

Our study is retrospective and it was performed in the First Surgical Clinic and in the Vascular Surgery Clinic of the County Hospital Timisoara, over a period of 10 years (01.01.2000-31.12.2009).

A number of 3684 patients with varicose veins were treated with sclerotherapy or operated in these clinics, between these ten years. Among them, 395 patients (10.72%) presented thrombophlebitis of the great saphenous vein as a complication of the varicose veins.

132 patients were admitted with great saphenous non varicose vein thrombosis.

A number of 527 patients with thrombosis of the great saphenous vein and/or its side branches were included in our study, 384 women (72, 87%) and 183 men (27, 13%).

The patients' age was within 24 and 86 years. The mean age was 48 years.

The thrombotic process was located:
- 143 patients- great saphenous thrombosis limited at the calf,
- 89 patients- great saphenous thrombosis limited at the thigh,
- 102 patients- great saphenous thrombosis of the entire limb (calf and thigh, but with a free sapheno-femoral junction),
- 175 patients- the thrombotic process involve the sapheno-femoral junction,
- 18 patients- extensive thrombosis through the sapheno-femoral junction in the femoral +/- iliac veins.

The Duplex examination is the most useful and cost-effective method. Practically in almost all cases, it replaces the phlebography for the complete diagnosis of the thrombotic process. The Duplex exam was effectuated for a number of 339 patients (64, 32%).

The time period between the start of the symptoms and the time of presentation to the specialists / admission to our clinics was variable:
- 7-21 days for the calf/ thigh limited thrombosis,
- 1-7 days for the thrombosis of the entire limb, but with a free sapheno-femoral junction,
- 3-21 days for the extension of the thrombotic process into the sapheno-femoral junction,
- 3- 14 days for the extension of the thrombotic process into the deep system (femoral, iliac veins).

Before being admitted to the hospital, some of the patients followed various treatments:
- No treatment- 268 patients,
- Nonsteroidal anti-inflammatory drugs- 95 patients
- Phlebotropic drugs - 64 patients,
- Anti-inflammatory and/ or phlebotropic ointments - 54 patients,
- Anticoagulant treatment - 35 patients,
- Antibiotic treatment - 11 patients.

RESULTS

The therapeutic options were:
- Immediate high ligation, followed by great saphenous vein stripping and multiples phlebectomies- 175 patients,
- Delayed high ligation, great saphenous vein stripping and multiples phlebectomies- 150 patients,
- Ilio/femoral thrombectomy, high ligation, great saphenous vein stripping and multiples phlebectomies- 18 patients,
- Multiples phlebectomies - 52 patients,
- No surgery - 132 patients.

We did not encountered any major intraoperative incidents. The postoperative complications were minors:
The patient's evolution was favourable in all cases. The hospitalization time varied between 2 and 14 days, with a medium hospitalization time of 4 days.

**CONCLUSIONS**

The prophylactic treatment for great saphenous vein thrombophlebitis is necessary (surgical treatment for varicose veins before the appearance of the complications).

If the superficial thrombosis is recurrent, especially in non varicose veins, is mandatory to test for hypercoagulable states or for an unknown malignancy.

The Duplex examination is very useful regarding the extension of the thrombotic process via the sapheno-femoral junction/ perforating veins into the deep system.

We noted that the echographic extension of the thrombotic process was more severe/proximal than the clinic examination showed.

The associated nonsteroidal antiinflammatory drugs and the compression stockings alone, without surgery, are recommended only for limited calf thrombosis.

The phlebotropic treatment with micronized flavonoid fraction has a minor/null effect in the great saphenous vein thrombosis. Also the antibiotic treatment (administered especially by the general practitioners) has no effect (the thrombosis is a sterile inflammatory process).

The surgical treatment (immediate or delayed) is the best choice for the varicose saphenous vein thrombosis, and the anticoagulant treatment is the best alternative for non varicose saphenous thrombophlebitis.

**References:**