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THE RELATIONSHIP BETWEEN CHRONIC VENOUS DISEASE AND THE APPEARANCE OF SUPERFICIAL THOMBOPHLEBITIS

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Abstract: The most common complications of chronic venous disease are venous ulcers and superficial thrombophlebitis. The current study aimed to determine the incidence of superficial thrombophlebitis in patients with chronic venous disease and to follow frequency and cause of disease recurrence. In a nine years period, 495 patients were treated for superficial thrombophlebitis in the clinic of Vascular Surgery of Military Medical Academy and in the diagnostic-consultative office of vascular surgery. Of them 108 (22%) patients, were admitted for surgery. The goals of therapy for STP are to prevent the clot progressing into the deep venous system and to hasten the resolution of the inflammatory and thrombotic processes in areas already affected. The first option of treatment consists of perscription of nonsteroid anti-inflammatory drugs, venotonics and low molecular weight heparin. Only in cases when the thromboplebitis of the great or small saphenous vein cames closer the SFJ or SPJ, the surgery is necessary. The surgical techniques that are usually applied are crossectomy of the GSV, or SSV and less often thrombectomy of the EIV, phlebotomy, phlebocutaneoectomy. The other 387(78%) patients underwent conservative therapy with AINS, antiagregant or anticoagulant therapy. Patients with chronical venous insufficiency and varicose veins are more at risk for superficial thrombophlebitis appearance.

Keywords: *DVT varicose veins, thrombophlebitis.*
Field : Medical Sciences and Health.

1. INTRODUCTION

Superficial thrombophlebitis is usually a non infectious inflammatory-thrombotic process that may occur spontaneously, after traumatism, after yatrogrnic manipulations or after surgery.10,2,13 Usually it affects the vein's wall with the surrounding tissue, which cuses intravenous thrombosis4,5,6. Every year it affects about 125000 people in the USA.7 The frequency of STP on patients with varicosse veins is between 4% to 59% 9,11,12 .

It is very difficult to establish if the inflammation causes thrombosis or the thrombosis causes inflamation, but the goal of the therapy is to cease and to desist the inflammation and the clot progression. For this reason we start the therapy with nonsteroid antiinflammatory drugs for local, oral or intravenous use to stop the inflammation, venotonics, Heparin or low molecular weight heparin or sinthetical anticoagulants to cease the cloth progression. The phlebitis and the inflammation of the surrounding tissue are responsible for the pain, and for sclerosis of the fat tissue and for the appearance of venous ulcers. That is why our reccomenadation is ten to twelve days of non steroidal anti-inflammatory therapy for oral or intravenous application and local use and ten days to two weeks of anticoagulant therapy, because the risk of PTE increases with the clot progression through SFJ or SPJ into the deep veins. The anticoagulant therapy may be continued with antiagregant therapy. Venotonic preparations affect the venous wall by reducing its permeability, thereby inhibiting the inflammatory reaction and reducing edema.

When the thrombosis reaches the SPJ or SFJ, the surgical intervention is preferable. The crossectomy of GSV (Great Saphenous vein) and SSV (Small Saphenous vein) is necessary to prevent the DVT (Deep Venous Thrombosis) and the PTE (Pulmonary Thromb Embolism). In cases when the clot is in the iliac veins, the thrombectomy of the last one followed by the Great Saphenous or Small Saphenous vein crossectomy, is the best way to avoid the complications like DVT and PTE.

2. MATERIALS AND METHODS

From 2009 to 2017, 495 patients were treated for superficial thrombophlebitis in the Military Medical Academy. The patients were divided in two cohorts. 108 (22%) patients from the first cohort, were

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admitted in to the clinic of vascular surgery for surgical tretament and the second cohort of 387(78%) patients underwent conservative therapy. (Fig. 1)

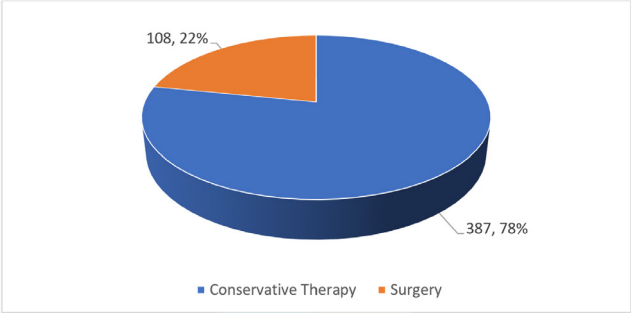

Fig. 1 Total number of patients with superficial thrombophlebitis.

The mean age of the ofthe patients and of hospitalized patients was determined. During the first year after surgery, 90 (85%) of the patients were followed up; in the second year - 61 patients (58%), and in the third year - 34 (32%) patients.

Results. The frequency of superficial thrombophlebitis in patients with chronic venous disease, followed in the diagnostic-consultative office of vascular surgery and through the emergency surgery office of the Medical Academy, was 22% (108 patients). (Fig. 2)

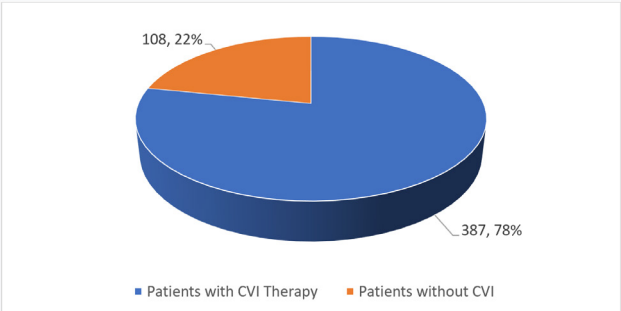

Fig. 2 The incidence of superficial thrombophlebitis in patients with chronic venous disease

From the patients admitted into the Clinic of vascular Surgery, 106 underwent surgery, and two patients were left for conservative treatment, under active observation. The mean age of patients was 56.5 years for men (range 21 to 87) and 54.5 for women (range 18 to 80). (Fig. 3)

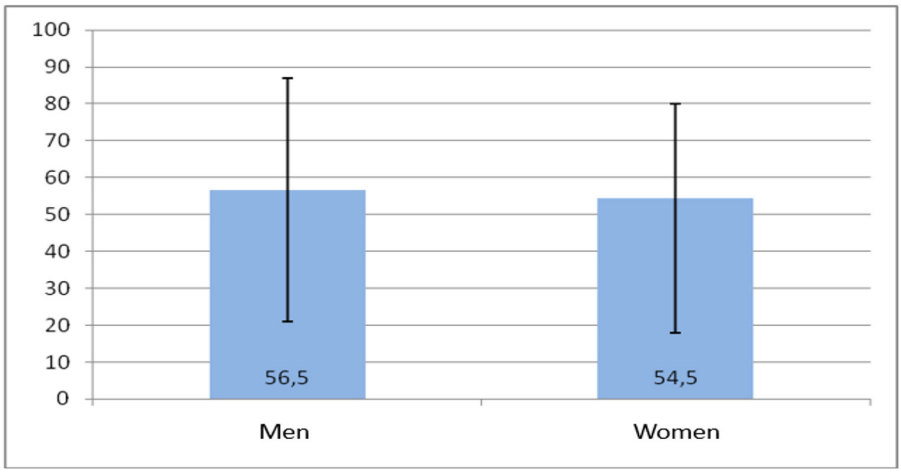

Fig. 3 Average age of the patients.

For hospitalized patients it was similar for both sexes at 56.6 years, for men it ranges from 30 to 81 years and for women from 32 to 70 years. (Fig. 4)

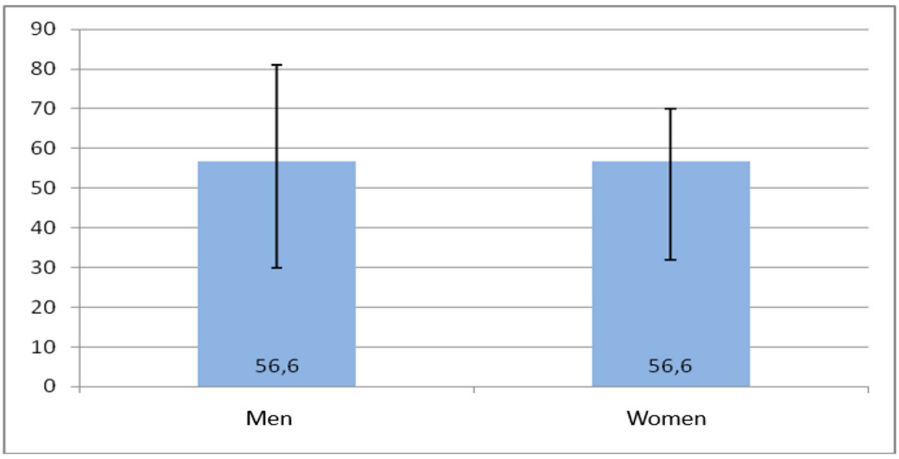

Fig. 4 Average age of the admited patients.

All 106 operated patients were discharged with primary healed operative wounds. No cases of recurrent superficial thrombophlebitis were registered in the early postoperative period. In patients with External Iliac Vein and Common Femoral Vein thrombectomy, there was no evidence of postoperative DVT or Pulmonary Thromboembolism. During the first year after surgery, 90 (85%) of the patients were followed up; in the second year- 61 patients (58%), and in the third year- 34 (32%) patients. (Fig. 5)

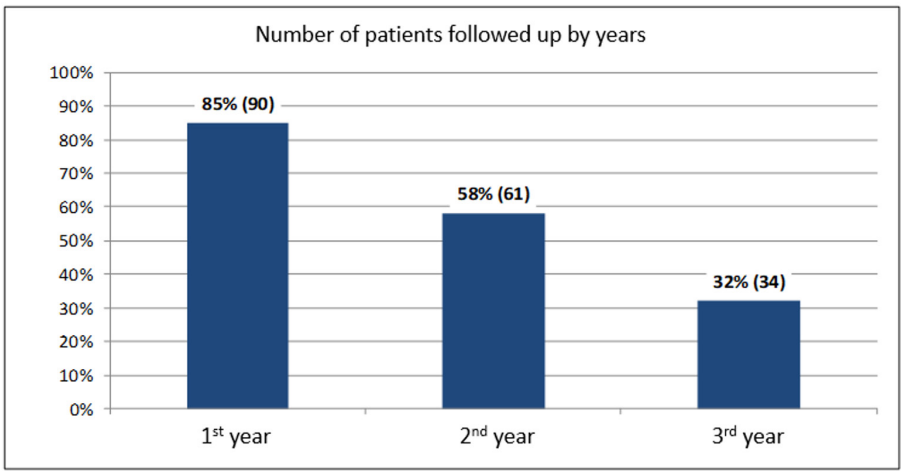

Fig. 5 Number of patients followed up by years.

A relapse of superficial thrombophlebitis was found in 17 patients (16%). (Fig. 6)

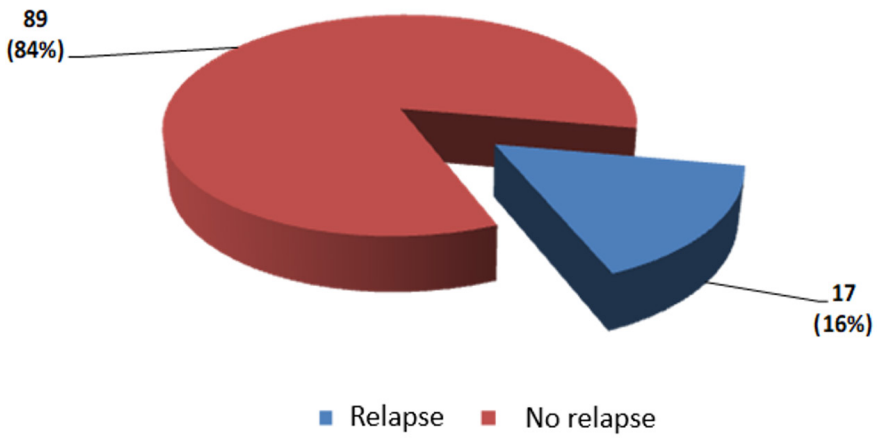

Fig. 6 Percentage ratio of patients who relapsed and the ones who didn't.

Most often, recurrence appears in patients with superficial varicose veins. Usually, after the process has passed, these patients ignore the disease and do not undergo surgical treatment at the second stage. Secondary varicose veins are a frequent cause of recurrent superficial thrombophlebitis in operated patients.

3. DISCUSSION

Unfortunately, many doctors aren't attentive enough of superficial thrombophlebitis. The untimely intervention of a vascular surgeon or angiologist, incorrect and untimely treatment can lead to the process involving the deep veins as well. The most serious complication of improperly treated superficial thrombophlebitis is pulmonary thromboembolism. The average age of the patients is 60 years 8,15. In our study the average age of the patients was 56,5 for men and 54.5 for women. For the patients that underwent surgery, it is the same for both genders-56.6 years. In the majority of cases, acute superficial thrombophlebitis occurs in patients with CVI especially suffering of varicose veins of the lower limb (varicophlebitis) and is the most common complication of CVI or post-phlebitis syndrome (10 times more often)10,13. According to other authors, the frequency of STP in a large series of patients with varicose veins varies from 4% to 59%9,11,12. Our results also fall within these percentages, as the frequency of superficial thrombophlebitis in patients with chronic venous disease is 22%. As per our results no greater propensity for STP was found in one or the other lower limb.

4. CONCLUSIONS

1. Superficial thrombophlebitis is a disease whose incorrect and untimely treatment can have severe, sometimes fatal consequences.
2. Superficial thrombophlebitis occurs in patients with CVI especially suffering of varicose veins
3. All age groups are affected, but most often superficial thrombophlebitis occurs between the fifth and sixth decade.
4. The treatment is mainly conservative and includes non-steroidal anti-inflammatory drugs, venotonics and low molecular weight heparins
5. The patient should be monitored throughout the treatment period until the process is terminated.

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Abbreviations
STP-superficial thrombophlebitis
GSV-great saphenous vein
EIV-external iliac vein
SSV-small saphenous vein
DVT-deep venous thrombosis
SFJ-sapheno-femoral junction
SPJ-sapheno-popliteal junction
PTE-pulmonary thrombembolism
CVI- chronical venous insufficiency

Compliance with Ethics Requirements:
"The authors declare no conflict of interest regarding this article. The authors declare that all the procedures and experiments of this study respect the ethical standarts in the Helsinky Declaration of 1975, as revised in 2008(5), as well as the national low. Informed consent was obtained from all the patients included in this study".

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