



## THE NATURAL HISTORY AND THE EVOLUTION OF THE TREATED AND NOT TREATED VARICOSE DISEASE

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### **ABSTRACT:**

*The varicose disease represents a very frequent cause of morbidity: 50% of population.*

*The main etiological factors are: prolonged orthostatic position, genetic factors, pregnancy, raised intraabdominal pressure.*

*The treatment is initially conservative: postural drainage, elastic stockings, drugs treatment. This treatment is not curative; the varicose disease is progressive so subsequently we perform surgical operations as saphenectomy by stripping, phlebectomies, venous catgut inclusions and sclerotherapy.*

*We studied a group of 72 patients with relapsed varicose disease in different stages of evolution. We performed the stripping of the great saphenous vein associated with phlebectomies, the cuffing of the great saphenous crossa and phlebectomies centered on the varicose packages. We used this method of cuffing the crossa because the varicose disease was in an early stage and the patients were diagnosed with chronic arteritis obliterans at the controlateral limb for preserving the great saphenous vein for an eventual arterial by-pass.*

**KEYWORDS:** *varicose disease, relapses of varices.*

### **1. INTRODUCTION**

The real relapses of the varicose disease after a previous surgery for this pathology consists of the varices appearance in the reflux regions, which were interrupted at the primary operation.

The development of the varicose veins in another region closer or farther from the previously operated areas, corresponds to the chronic evolution of the varicose disease. We have to take into account 3 elements when we observed varices at a previously operated patient for the varicose disease: real relapsed varices, residual varices and varices due to the evolution of the disease. In the surgery of the varicose disease there are a lot of relapses (15-30% of cases) if we follow the

patients for a long time. This disease is a chronic evolving pathology determined by a defect in the venous walls in many cases, the veins having a predisposition for dilatation.

Clinic arguments for relapsed varices: free interval of time after surgery; postoperative scars; disseminated varicose veins with fragile and tortuous veins.

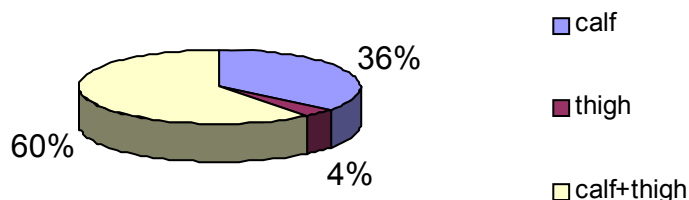
When we know the physiopathological aspects of the surgical treatment we can easily recognize the causes of the relapses. The persistence of some reflux points will determine the relapse because the functional objective of the varices treatment was not solved (the suppression of the pathologic reflux which determines the increased orthostatic venous pressure). The reflux may persist if the sclerotherapy is used exclusively for the treatment of all types of varices. If some varicose packets and their collaterals are not excised there will exist an important source of relapses.

The relapses may also appear, when a correct surgical treatment is applied, because of the evolving character of the disease due to the genetic factors (family history of varicose disease). These patients must be controlled regularly and carefully and when the first varicose veins appear we must start a therapeutic procedure (mainly sclerotherapy and phlebectomies).

In the period 2001-2002 at The 1st Clinic of Surgery Timisoara, there were 72 cases with relapsed varicose disease, 17 men and 55 women.

The location of the relapses were: calf: 27 cases (37.5%); thigh: 3 cases (4.1%); calf and thigh: 42 cases (58.3%).

### The location of the relapses (2001-2002)

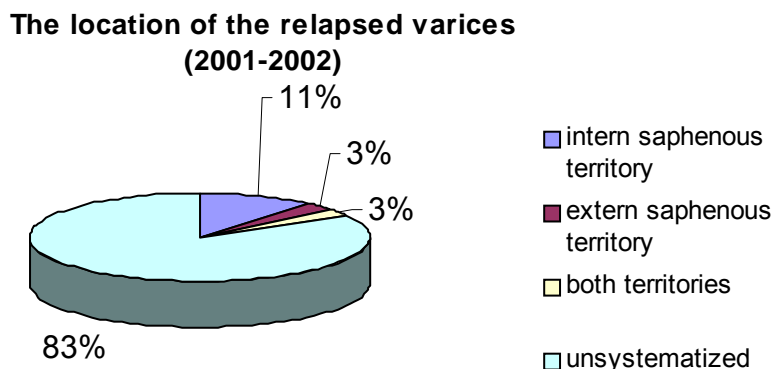


**Fig.1.** The location of the relapses

The relapses appear most frequent in association at calf and thigh.

Unilateral varices were observed in 41 cases (56.9%) and bilateral – in 31 cases (43.1%) so the unilateral disease was predominant.

The relapses had the following locations (as regions of superficial venous system): in the intern saphenous vein territory: 8 cases (11.1%); in the extern saphenous vein territory: 2 cases (2.7%); in both these 2 territories: 2 cases (2.7%); unsystematized varices: 60 cases (83.3%).



**Fig. 2.** The affected venous territories

The majority of the relapses were unsystematized.

In some cases, the relapses were associated with signs and symptoms of chronic venous insufficiency as calf ulcer. So we observed at 2 cases (2.7%) trophic changes of the skin (pigmentations, atrophies of the) and active calf ulcers in 16 cases (22.2%).

Another associations were with acute superficial thrombophlebitis in 8 cases (11.1%), acute deep thrombophlebitis in 3 cases (4.1%) and with postthrombotic syndrome in 6 cases (8.3%).

The previous surgeries, carried on before the appearance of the relapses, were: crosssection of the intern saphenous vein associated with phlebectomies: 2 cases (2.7%); intern saphenectomy: 42 cases (58.3%); extern saphenectomy: 1 case (1.3%); intern and extern saphenectomy: 3 cases (4.1%); phlebectomies: 13 cases (18%); sclerotherapy: 8 cases (11.1%); intern saphenectomy associated with sclerotherapy: 1 case (1.3%); intern saphenectomy associated with phlebectomies: 2 cases (2.7%).

The types of therapeutic methods applied for the relapses were: sclerotherapy: 5 cases (6.9%); intern saphenectomy associated with phlebectomies: 5 cases (6.9%); intern saphenectomy associated with perforating veins ligations: 1 case (1.3%); phlebectomies: 9 cases (12.5%); phlebectomies associated with intraoperative sclerotherapy with catgut: 21 cases (29.1%); plastic reconstructive surgery for the calf ulcer: 1 case (1.3%); medical treatment (anti-inflammatory and anticoagulant drugs): 7 cases (9.7%); perforating veins ligations associated with sclerotherapy with catgut: 2 cases (2.7%); intern saphenectomy associated with phlebectomies and sclerotherapy with catgut: 3 cases (4.1%); without treatment (patients that entered the hospital for another surgical pathology): 3 cases (4.1%); perforating veins ligations associated with valvuloplasty of the popliteal vein: 1 case (1.3%); subfascial endoscopic perforating veins ligations at calf: 5 cases (6.9%); perforating veins ligations associated with phlebectomies and sclerotherapy: 2 cases (2.7%); perforating veins ligations (calves and thighs): 2 cases (2.7%); perforating veins ligations associated with phlebectomies: 2 cases (2.7%); perforating veins ligations associated with intern saphenectomy and phlebectomies: 1 case (1.3%); CHIVA operation associated with phlebectomies and sclerotherapy: 1 case (1.3%); crosssection of the intern saphenous vein associated with phlebectomies: 1 case (1.3%).

So in these cases with relapsed varicose disease phlebectomies associated with intraoperative sclerotherapy with catgut and only phlebectomies were performed in the majority of cases.

## 2. CONCLUSIONS

In the period 2001 – 2002 we had 72 patients with relapsed varicose disease. This pathology was observed predominantly at women, the venous dilations were located especially at calf and thigh, unilateral and unsystematized. In 22.2% of cases there was an association with active calf ulcer and in 8.3% of cases with postthrombotic syndrome. The previous surgeries were predominantly intern saphenectomies (58.3%) and phlebectomies (18%). Phlebectomies associated with intraoperative sclerotherapy with catgut and only phlebectomies were the surgical procedures preferred for these cases.

Recent studies observed an increased incidence of relapses (15-30%) for patients operated in antecedents for varicose disease. In fact we must make the difference between the real relapsed varices, the residual unexcised varices and the varices due to the natural evolution of the disease. The relapsed varices can be determined by surgical causes but there is also a complex phenomenon of angiogenesis of the varicose vessels. We observed relapsed varices caused by technique deficiencies but also by neoangiogenesis, studying these cases from the 1st Clinic of Surgery. The varicose veins caused by neoangiogenesis are sinuous, fragile and form a real venous sponge, which is excised with difficulty.

The prophylaxis of the relapses in the varicose disease is made by selecting the cases for surgery as well as by choosing the appropriate type of operation taking into account the clinic, laboratory and imagistic exams. A new method for neoangiogenesis prevention is the invagination of the saphenous stump to avoid the contact of the venous endothelium with the surrounding tissues and so the regeneration of the veins. Postoperative, the complex treatment for relapsed varicose disease includes periodic controls, sclerotherapy and elastic stockings. The results of this surgery are better if the patients are cooperative and if they come regularly at the controls and periodical treatments, also if they respect the appropriate regime of life.

## 3. REFERENCES

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