

TREATMENT OF LOWER LIMBS' CHRONIC VENOUS INSUFFICIENCY WITH ENDOVASCULAR LASER

Up till now the lower limbs' varices remain one of the most spread pathologies in the industrialized countries: a woman out of 4 and a man out of 15 suffer for this disease.

Over the 50% of the population suffer from this in the end.

The risk factors are various: the most known are:

- Age
- Gender
- Pregnancy and hormonal factors
- Familiarity
- Race

For what regards the gender, we know that women suffer from it 2-3 times more than men.

The age then, increases the incidence of this pathology, up to the 55% of men and 75% of women.

The influence of pregnancy and generally of hormonal factors in the etiology of varices is well known, and it is well known that who has varicose parents, especially if it is the mother, often produces varices, too. Think about that up to the 75% of women who have varicose parents, have legs' varices. Besides staying up too much and also particular climatic conditions can increase the incidence of varices.

So, it is a very widespread disease and susceptible to many corrections, according to the school, to everyone's practice, but especially according to the indications.

In fact different indications and operations exist based on the type of the varices that we have to treat: varices of the big or small saphenas, varices of the collaterals of these main veins, varices of the anarchic veins which are not in communication with the saphenic system.

When the endovascular laser is suitable?

In particular for varices due to an insufficiency of the big and small saphena, the Italian school I belong to, and in particular the one from Milan, has always had a very rigorous and univocal attitude: so far the surgical operation of stripping was the best therapy, the "gold standard".

The laser started to be used many years ago in different specialties of the surgical medical field and it was applied to vascular surgery before than to the arterial field.

In those past years its application in the venous field has been imposed and, probably, a big revolution is happening: for some indications the endovascular surgery is replacing the traditional one.

I lately attended a congress where the Italian results of the IEWG society were presented, it is one of the most representative and updated society that collects the results of many laser operators: the 3 aa results are super imposable to the traditional surgery, but with a completely lower invasivity, an exceptional quick resumption for what concerns job, a very noteworthy and easily execution.

But let us see which are the possibilities and who can be submitted to this operation.

All the patients who suffer from an insufficiency of the big saphena or the small troncular saphena, which means till its confluence in the main vein of the lower limb, the femoral and popliteal vein.

Veins do not have to be too much dilated (max diameter around 10 mm).

Too exaggerated venous dilatations, the so-called venous aneurysms, do not have to occur.

Also collateral veins of the saphenas can be treated, on condition that they are straight enough to allow the introduction of the laser fiber.

Those patients, who were risking more, take the best benefits, in particular if they are submitted to a traditional operation, such as diabetics and obese.

How does the exam exactly develop?

It is rigorously an outpatient procedure. By now the admission is not necessary anymore, just in very particular cases.

Under echographic control, the vein that needs to be treated is punctured with a normal sample acucannula, preferentially at the level of the knee.

Through this way, the optic fiber, that allows the laser rays to get to its destination, is inserted.

Always with the help of the echography, the laser ray is exactly pinned where the treatment has to start, at the root of the vein that we have to treat, and in the end, extracting the laser fiber in few seconds, we proceed with the coagulation of the vein.

This last passage would be a little painful because basically it is a burn, but the problem is solved with a local anesthesia, that beside all it is useful to take away the vein from the cutaneous plane, avoiding in this way an excessive inflammation.

Up to this point we can proceed with the elimination of small collaterals through a little surgical incision, always with a local anesthesia, or also through a sclerosing injection.

This second passage can be executed multitasking with the laser treatment, or later on after having evaluating the results of the main vein's obliteration.

Often, in fact, the swollen ecstatic venous branches lacking the main reflux, decrease a lot and sometime they do not even need to be treated.

At this point the patient is bandaged, as we have always done, and he is sent home. The post operation pain is least and the patient immediately starts walking again. In most cases the patient can start working after only 1 week.

So, no more incisions as a rule, neither at the groin nor at the knee. No stitches to remove. Hematomaes and ecchymosis truly reduced to the minimum.

But especially great dependability against a trauma that has become very slightest.

I am personally in favor of this treatment, especially for its great simplicity and scarce invasivity.

All the surgery is addressed to mini invasive operations and also the interventionist phlebology seems to derive great benefits!