

Treatment of the télangiectasies by the technique of thermo coagulation. Study on 50 patients

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INTRODUCTION

The treatment of the télangiectasies represents a dominating place in the activity of a phlebologist. The regression of heavy pathologies and the significant increase in request of the patients towards more esthetics explain than 70% of the reasons for consultation in the cabinets of phlebology are related to the desire of eradication of the varicosities.

These télangiectasies localized on the lower limbs, indication of pathology of venous fabric, poses mainly a cosmetic problem.

These fine dilations of the surface venous network are not always easy to attack and the results are sometimes dubious, related on the quality of the operator and also to the requirement of the patient.

There are 3 types of therapeutic techniques: the laser – micro sclerosis and thermo coagulation.

The laser has very limited indications. The micro sclerosis cannot treat the fine varicosities.

And these 2 treatments are not without side effects.

Thermocoagulation, being used for 5 years now, has offered interesting therapeutic prospects on these small vessels.

PHYSICAL PRINCIPLE

Its principle is based on the action of a very high frequency (radio frequency) pulse which causes a thermal lesion. The energy of this wave will be transformed into heat.

The energy is transmitted by the means of a very small gauge needle which is in contact with the vessel, d

The temperature in the vessel is increased to about 70 ° Celsius and that will result in the coagulation of plasmatic proteins and a destruction of the parietal structure.

With a generator of a new generation, TC 3000, the RF pulses are very stable in intensity and in time, which allows for a progressive burn of fabrics and avoids the carbonization of these fabrics.

This allow for a targeted action and effective limiting the risk of coetaneous lesion.

The generator uses a frequency of 4 million Hertz.

In the event of higher frequency, the action becomes too selective (microphone-localized)

In the event of lower frequency, the action is coarser, less precise with dispersion of energy.

PATIENTS – METHODOLOGY

We studied 50 patients presenting telangiectasies at the level of the lower limbs between February and June 2004.

The average age of the patients is 43 years, exclusively female.

The number of sessions is 1 in 50%, of 2 in 30% and 3 in 20% of the cases

They were re-examined at day 15 - day 21 - day 45 and at day 90.

Criteria of inclusion

The 3 clinical types of telangiectasies were treated: linear insulated – in fan-shaped and large spot.

The most frequent ones are the linear insulated ones.

Topography related to all the localizations of the lower limbs: ankles – foot – legs – knee – hollow of the knee – thigh.

The diameter of the telangiectasies treated was roughly of 0.3 mm (size of the finest needle used in phlebology) and represents the majority of the telangiectasies.

Criteria of exclusion

The patients with large varicose veins adjacent to the small varicosities were not retained in the study.

Material

For the treatment we used the TC 3000 generator whose parameters selected were 30% of power and 0.2 second of duration of the wave pulse.

The needles used are Ballet K3 of 0.075 mm

Procedure

The used treatment technique is based on these 7 rules:

- the treated zone must be on a horizontal level
- to use magnifying glasses with 6 times magnification
- to prick perpendicular to the skin
- to regularly clean the needle with a sterile compress (to withdraw the layer of proteins coagulated)
- impulse all 3 – 4 mm
- to prick very superficially
- to wait 3 weeks before treating the same zone again

RESULTS:

The results are classified in 5 levels.

- + 0: no change
- + 1: less than 25% of improvement
- + 2: from 25 to 50%
- + 3: from 50 to 75%
- + 4: > 75% improvement

On the studied patients, one notes:

- + 65% of level 4
- + 10% of level 3
- + 20% of level 2
- + 5% of level 0.

What represents an average of improvement of 3.4.

It is interesting to compare these figures with those provided by the literature on the improvement by micro sclerotherapie and by laser:

Stick and coll, in the USA, in 2002, used the same result grid of but on patients treated by laser or micro sclerosis.

The result obtained is 2.3 for the micro sclerosis and 2.5 for the laser.

The comparison with this study shows the great effectiveness of thermo coagulation on these varicosities.

According to the treated zones, the improvement does not seem completely identical.

The results are very good on the level of the feet, ankles and legs.

More delicate on the level of the knees and the internal thighs; where 2 meetings are necessary.

But that remains very satisfactory, because the knee is a difficult area.

No side effect is to be noted.

The microphone-oedemas and erythemas immediately appeared after the treatment disappear quickly.

The microphone-crusts take a long time to be erased (between 3 to 6 weeks, according to the depth of the treatment and its energy).

internal knee OJ



Day 0 a



day 7 a

microphone-crusts with J 28



day 28 a

CONCLUSION:

This study shows the high effectiveness of thermo coagulation in the treatment of the varicosities and in particular of the small varicosities with a power of 30%, a time of impulse of 0.2 and one needle to 0.075 mm in diameter.

The respect of the rules of use and the protocol as well as a good hand coordination make it possible to ensure very good results in the treatment of the telangiectasies.