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Out-patient surgery of the varicose veins of the lower limbs: personal experience

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Abstract

We report our experience in the treatment of varicose veins of the lower limbs in the day surgery clinic of the 2nd Department of General Surgery of the University of Padova. From October 1990 to October 1996, 1522 cases of lower limb varicose veins were treated in our day-surgery clinic. Super-selective subarachnoid anesthesia was used in 94% of the cases. In all cases in which the incompetence of the saphenous trunk was demonstrated, crossectomy was associated with long or short stripping. There were no intra- or post-operative deaths and only limited morbidity. Post-operative hospitalization was required in four patients (three for headache and one for precordial pain). In conclusion, the out-patient treatment of varicose veins involves the same techniques as in-patient treatment. Therefore, the risks associated with surgery and anesthesia are very limited in a specialized center. © 1997 Elsevier Science Ireland Ltd.

Keywords: Anesthesia; Out-patient surgery; Varicose veins

1. Introduction

Day hospital treatment of lower limb varicose veins is already standard in the USA [1]. In Italy [2] it has come to be seen as a choice forced by the lack of hospital beds, long waiting lists for routine operations and the high costs of traditional surgery performed in an in-hospital regime.

Numerous studies concerning organizational, anesthesiological and surgical problems have been published and the guidelines for day surgery have already been established [3–5].

Day surgery experience is still limited in Italy and will have to be wider before it is possible to confirm the safety and effectiveness already demonstrated in other countries. Hence, we report our 6-year experience in the day surgery treatment of lower-limb varicose veins with particular emphasis on the analysis of data concerning minor and major complications after the application of surgical and anesthesiological techniques identical to those applied in traditional in-hospital surgery.

2. Materials and methods

From October 1990 to October 1996, day surgery treatment of lower limb varicose veins was performed in 1522 patients; 425 males (28%) and 1097 females (72%); the average age was 47 years (range 20–81).

Varicose disease was divided into the following groups through echo color Doppler examinations:

varices of the large saphena vein (1402; 92%)
varices of the small saphena vein (62; 4%)
varices of the perforating veins of the popliteal fossa (2) and of Hunter (2)
recurrent varices of the large saphena vein (54: 4%).

All operations were performed in a day surgery center independent of the hospital center and according to day surgery protocol.

The anesthesiological technique used most frequently was superselective subarachnoid anesthesia, performed in 1432 patients (94%), while a winnie block was per-

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formed in 15 patients (1%), local anesthesia alone in 47 patients (3%) and local anesthesia associated with propofol in 28 patients (2%).

The large saphena vein was treated with three types of surgical intervention:

radical crossectomy and long stripping (228; 16%)
radical crossectomy and short stripping (1072; 76%)
radical crossectomy alone (102; 7%).

Surgery of the small saphena vein included:

radical crossectomy and long stripping (4; 6%)
radical crossectomy and short stripping (54; 87%)
radical crossectomy alone (4; 6%).

Altogether, 232 long strippings (15%), 1126 short strippings (74%) and 106 crossectomies were performed. Moreover, 54 revisions of the sapheno-femoral crosses for recurring varices of the large saphena vein, two ligations of perforators of the popliteal fossa and two ligations of Hunter perforators were performed. A total of 61% of the patients underwent sclerotherapy of collateral varicose veins post-operatively. All patients were discharged with an adhesive stretch bandage which was removed after about 7 days.

Patients were checked on the 1st post-operative day and telephone contact was established so that patients could immediately report possible symptoms of complications related to the surgical wound or to the bandage.

3. Results

No deaths occurred intra- or post-operatively. Three patients who had undergone stripping of the large saphena requested post-operative hospitalization for headache caused by spinal anesthesia. One patient was admitted to the traditional hospital regime due to the appearance of intra-operative precordialgia but was released after only a 1-day stay.

The only anesthesiological complication was headache caused by subarachnoid anesthesia which occurred in five patients (0.3%), three of whom requested hospitalization. No complications related to overdose or allergic reaction to the anesthetic occurred in patients who received local anesthesia.

No infections of the wound, hemorrhaging of the inguinal or popliteal wound requiring reintervention, deep venous thrombosis, pulmonary embolism or other major surgical complications occurred.

Minor surgical complications were analyzed in a sample of 150 operated patients:

ecchimosis requiring no treatment (32 patients; 21%)
infiltration of the inguinal wound requiring no treatment (25 patients; 16%)
discomfort related to the elastic bandage in 70 patients (46%), requiring removal of bandage due to discomfort 19 patients (12%).

Two patients in this sample reported intolerable post-operative pain and 85 patients (57%) took analgesics during the post-operative period.

A total of 89% of the sample expressed a favorable opinion of the surgery and the post-operative phase, claiming to be highly satisfied. This was substantiated by the fact that the help-line received only six calls, none of which requested immediate medical assistance.

4. Conclusions

In our experience, treatment of varicose veins performed in day surgery is equivalent to traditional surgery performed in an in-hospital regime. In fact, the most frequent treatment was short stripping (74%) of the large saphena vein (92%) and superselective subarchnoid anesthesia was performed in 94% of the cases.

The procedure proved to be quite safe; no major surgical complications occurred [6]. The only significant complication to be reported was anesthesia-related, i.e. five cases of headache [7].

This low incidence of complications can be explained by the improvement in anesthesiological techniques, the accurate selection of patients who are suitable for day surgery, the specific experience of the staff and the organization of the clinic.

Patient tolerance and satisfaction were high. In fact, a large percentage of patients suffered relatively few symptoms and those reported were related to the bandage, which caused discomfort, mainly on the 5th or 6th post-operative day.

Day surgery of lower limb varicose veins has proved to be safe, effective, well accepted by patients and advantageous both from the economic point of view and from that of the availability of hospital beds. However, it requires a specific competence and knowledge of possible related problems that are not always strictly medical.

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