

Safety and efficacy of saphenectomy in elderly patients

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SUMMARY: Safety and efficacy of saphenectomy in elderly patients.

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Aim. The aim of this study is to evaluate safety and efficacy of saphenectomy in elderly patients.

Patients and methods. A total of 358 patients with varicose veins of the lower limbs treated between January 2001 and December 2011. 213 of these were patients under 65 years old and 145 patients were over this age. We have evaluated short- and long-term complications to

compare the results among young and elderly patients.

Results. Postoperative complications that occurred were: infection, haematoma, nerve injury (paresthesia and pain) and deep vein thrombosis. Although a trend towards better results was observed among the young patients, no significant differences were shown in our experience.

Conclusion. Elective saphenectomy has a good outcome also in the elderly patients. The slightly higher rate of complications that occurred in older patients is not significant and does not support advising against the use of this surgical approach in the elderly. So in our opinion saphenectomy is quite safe and feasible also in patients over 65 years.

KEY WORDS: Varicose veins - Venous insufficiency - Saphenectomy - Vein stripping.

Introduction

Lower-extremity venous insufficiency is a common health problem in Western countries, and its prevalence increases with age. Epidemiological studies show that a quarter of the adult population has varicose veins (1). The prevalence of varicose veins in Western populations was estimated in one study to be about 25% to 30% in women and 10% to 20% in men (2).

Saphenous vein stripping is a simple, fast, safe, and standardized procedure for the treatment of varicose veins (3, 4). It involves the interruption of the femoral-saphenous junction, stripping of the great saphenous vein, multiple removal of the tributary vein of the saphena and ligation of the extrafascial perforating veins (5). Complications (major and minor) are reported in approxi-

mately 18-20% of patients having standard varicose vein surgery (6, 7). Major complication rates are reported in around 0.8% of patients (8), wound complications (rates vary from 3-10% and included infection, haematoma and abscess formation) (9, 10), thigh haematomas, nerve injury, vascular injury and (11) injury to the common femoral vein occurring more frequently than arterial injury and venous thromboembolism.

Age is significantly associated with the presence of varicose veins. The aim of this study is to evaluate safety and efficacy of saphenectomy in elderly patients.

Patients and methods

A total of 358 patients with varicose veins of the lower limbs treated between January 2001 and December 2011 at the Department of Advanced Biomedical Sciences of the 'Federico II' University in Naples (Italy) were retrospectively evaluated. 213 of these were patients under 65 years old and 145 patients were over this age. Patients with chronic venous disease C:2-6 A-S, E: P, A:S, P:S, P:R, according to the CEAP classification (12, 13), were included. Stripping with preoperative Doppler or ultrasound evaluation was performed by the same surgeons for the same indications in both groups.

Perioperative antiplatelet drugs administration were managed according to validated criteria (14).

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We have evaluated short- and long-term complications to compare the results among young and elderly patients.

Postoperative complications were assessed by observation: wound infection, thigh hematomas (>2 cm), lesions of saphenous nerve (paresthesia and pain), vascular injury, venous thromboembolism, and recurrence within one year.

Statistical analysis was carried out with SPSS version 16.0 using the chi square test for the categorical variables and student's t for the continuous variables. Significance was considered as $p=0,05$.

Results

Between January 1, 2001 and December 31, 2011 a total of 358 stripping procedures were performed. Patients were homogeneous for sex and BMI (Table 1).

Postoperative complications that occurred were: infection, haematoma, nerve injury (paresthesia and pain) and deep vein thrombosis.

Although a trend towards better results was observed among the young patients, no significative differences were shown in our experience (Table 2).

Discussion

In 2000 in the World there were about 600 million people with more than 60 years, in 2025 there will be 1.2 billion and 2 billion in 2050. People who survive to the ages of 70 to 75 years may be expected to live 14 additional years; those who live to ages of 80 to 85 years, 8 additional years. However, an exact definition of the geriatric patient is not available in the medical literature (15-17). Various publications differ in the age defined, which may be 60, 65 or 70 years; there are even studies placing it around 80 years (18, 19).

Stripping the GSV is routine practice for many surgeons to strip the great saphenous vein (GSV) after femoral-saphenous junction (SFJ) ligation.

Stripping the GSV exposes the patient to a greater risk of nerve injury and increased morbidity from pain, bruising and haematoma formation in the thigh. These disadvantages are felt to be outweighed by the benefit of a reduction in the development of recurrent varicose veins. Stripping of the GSV is postulated to reduce recurrence by preventing neovascularization in the groin joining up with the residual trunk of the GSV in the upper thigh and producing significant GSV reflux

TABLE 1 - PATIENTS' CHARACTERISTICS.

	Over 65 145 (48%)	Under 65 213 (52%)	P value
Age (average)	74	47	<0,001
BMI > 30	42 (29%)	83(39%)	0,2
Female	110 (76%)	167 (78%)	0,8

TABLE 2 - COMPLICATIONS.

	Over 65 145 (48%)	Under 65 213 (52%)	P value
Wound infection	10 (7%)	10 (5%)	0.5
Thigh haematoma	116 (80%)	149 (70%)	0.4
Nerve injury	52 (36%)	64 (30%)	0.4
Vascular injury	0 (0%)	0 (0%)	Not evaluable
Venous thromboembolism	1 (0.5%)	0 (0%)	0.4
Recurrence	20 (14%)	21 (10%)	0.3

in the lower limb. Complications (major and minor) are reported in approximately 18-20% of patients having standard varicose vein surgery (20, 21). Major complication rates are reported in around 0.8% of patients (22).

Wound complications, including infection, haematoma and abscess formation, reported rates vary from 3-10% (23, 24).

In our study, we found no differences between elderly and younger patients with regard to postoperative morbidity and recurrence. The p value was non-significant and this suggests the safety and the efficacy of the saphenectomy among elderly subjects.

Conclusion

Elective saphenectomy has a good outcome also in the elderly patients. The slightly higher rate of complications that occurred in older patients is not significant and does not support advising against the use of this surgical approach in the elderly. So in our opinion saphenectomy is quite safe and feasible also in patients over 65 years.

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