

Chapter 249

Treatment for Varicose and Telangiectatic Leg Veins

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REFERENCES

1. Chiesa R et al: Chronic venous insufficiency in Italy: the 24-cities cohort study. *Eur J Vasc Endovasc Surg* 30(4):422-429, 2005
2. Chiesa R et al: Demographic factors and their relationship with the presence of CVI signs in Italy: the 24-cities cohort study. *Eur J Vasc Endovasc Surg* 30(6):674-680, 2005
3. Jukkola TM et al: The effects of parity, oral contraceptive use and hormone replacement therapy on the incidence of varicose veins. *J Obstet Gynaecol* 26(5):448-451, 2006
4. Boivin P, Cornu-Thenard A, Charpak Y: Pregnancy-induced changes in lower extremity superficial veins: an ultrasound scan study. *J Vasc Surg* 32(3):570-574, 2000
5. Lee AJ et al: Lifestyle factors and the risk of varicose veins: Edinburgh Vein Study. *J Clin Epidemiol* 56(2):171-179, 2003
6. Ruckley CV et al: Chronic venous insufficiency: clinical and duplex correlations. The Edinburgh Vein Study of venous disorders in the general population. *J Vasc Surg* 36(3):520-525, 2002
7. Engel A, Johnson ML, Haynes SG: Health effects of sunlight exposure in the United States: Results from the first national health and nutrition examination survey, 1971-1974. *Arch Dermatol* 124:72-79, 1988
8. Lofgren KA: Varicose veins: their symptoms, complications, and management. *Postgrad Med* 65(6):131-139, 1979
9. Weiss RA, Weiss MA, Goldman MP: Physicians' negative perception of sclerotherapy for venous disorders: review of a 7-year experience with modern sclerotherapy. *Sou Med J* 85:1101-1106, 1992
10. Darke SG, Baker SJ: Ultrasound-guided foam sclerotherapy for the treatment of varicose veins. *Br J Surg* Aug;93(8):969-974, 2006
11. Goldman MP, Weiss RA, Bergan JJ: Diagnosis and treatment of varicose veins—a review [review]. *J Am Acad Dermatol* 31(3:Part 1):393-413, 1994
12. Weiss RA, Weiss MA: Ambulatory phlebectomy compared to sclerotherapy for varicose and telangiectatic veins: Indications and complications. *Adv Dermatol* 11:3-17, 1996
13. Weiss RA: Endovenous techniques for elimination of saphenous reflux: a valuable treatment modality. *Dermatol Surg* 27(10):902-905, 2001
14. Goldman MP: Closure of the greater saphenous vein with endoluminal radiofrequency thermal heating of the vein wall in combination with ambulatory phlebectomy: preliminary 6-month follow-up. *Dermatol Surg* 26(5):452-456, 2000
15. Cooper WM: Clinical evaluation of sotradecol, a sodium alkyl sulfate solution, in the injection therapy of varicose veins. *Surg Gynecol Obstet* 83:647-652, 1946
16. Duffy DM: Small vessel sclerotherapy: an overview. *Adv Dermatol* 3:221-242, 1988
17. Weiss RA, Weiss MA: Controlled RF endovenous occlusion using a unique RF catheter under duplex guidance to eliminate saphenous reflux: Two year follow-up. *Dermatol Surg* 28(1):38-42 2002
18. Weiss RA: Comparison of endovenous radiofrequency versus 810 nm diode laser occlusion of large veins in an animal model. *Dermatol Surg* 28(1):56-61, 2002
19. van HE et al: The development of valvular incompetence after deep vein thrombosis: a 7 year follow-up study with duplex scanning. *Eur J Vasc Endovasc Surg* 12(3):295-299, 1996
20. Weiss RA, Feied CF, Weiss MA: *Vein Diagnosis and Treatment: A Comprehensive Approach*. New York, McGraw-Hill, 2001
21. Sadick NS: *Manual of Sclerotherapy*. New York, Lippincott Williams and Wilkins, 2000
22. Trent JT et al: Venous ulcers: pathophysiology and treatment options. *Ostomy Wound Manage* 51(5):38-54, 2005

23. Bradbury A et al: The relationship between lower limb symptoms and superficial and deep venous reflux on duplex ultrasonography: the edinburgh vein study. *J Vasc Surg* 32(5):921-931, 2000
24. Weiss RA, Weiss MA: Resolution of pain associated with varicose and telangiectatic leg veins after compression sclerotherapy. *J Dermatol Surg Onc* 16:333-336, 1990
25. Merchant RF, Pichot O: Long-term outcomes of endovenous radiofrequency obliteration of saphenous reflux as a treatment for superficial venous insufficiency. *J Vasc Surg* 42(3):502-509, 2005
26. Miyazaki K et al: Long-term results of treatments for varicose veins due to greater saphenous vein insufficiency. *Int Angiol* 24(3):282-286, 2005
27. Morrison N: Saphenous ablation: what are the choices, laser or RF energy. *Semin Vasc Surg* 18(1):15-18, 2005
28. Weiss RA: Vascular studies of the legs for venous or arterial disease. [review]. *Dermatol Clin* 12(1):175-190, 1994
29. Sadick NS: Sclerotherapy of varicose and telangiectatic leg veins. Minimal sclerosant concentration of hypertonic saline and its relationship to vessel diameter [see comments]. *J Dermatol Surg Onc* 17:65-70, 1991
30. Zimmet SE: The prevention of cutaneous necrosis following extravasation of hypertonic saline and sodium tetradecyl sulfate. *J Dermatol Surg Onc* 19:641-646, 1993
31. Conrad P, Malouf GM, Stacey MC: The australian polidocanol (aethoxysklerol) study. results at 2 years. *Dermatol Surg* 21(4):334-336, 1995
32. Rabe E, Pannier F: Sclerotherapy of varicose veins with polidocanol based on the guidelines of the German Society of Phlebology. *Dermatol Surg* 36(Suppl 2):968-975, 2010
33. Rabe E et al: Sclerotherapy of telangiectases and reticular veins: a double-blind, randomized, comparative clinical trial of polidocanol, sodium tetradecyl sulphate and isotonic saline (EASI study). *Phlebology* 25(3):124-131, 2010
34. Rao J, Wildemore JK, Goldman MP: Double-blind prospective comparative trial between foamed and liquid polidocanol and sodium tetradecyl sulfate in the treatment of varicose and telangiectatic leg veins. *Dermatol Surg* 31(6):631-635, 2005
35. Weiss RA, Weiss MA: Painful telangiectasias: diagnosis and treatment. In: *Varicose Veins and Telangiectasias: Diagnosis and Treatment*, 2nd edition, edited by JJ Bergan, RA Weiss, MP Goldman. St. Louis, Quality Medical Publishing, Inc, 1999, p. 389-406
36. Goldman MP, Bennett RG: Treatment of telangiectasia: a review. *J Am Acad Dermatol* 17:167-182, 1987
37. Tessari L, Cavezzi A, Frullini A: Preliminary experience with a new sclerosing foam in the treatment of varicose veins. *Dermatol Surg* 27(1):58-60, 2001
38. Alos J et al: Efficacy and safety of sclerotherapy using polidocanol foam: a controlled clinical trial. *Eur J Vasc Endovasc Surg* 31(1):101-107, 2006
39. Goldman MP, Kaplan RP, Duffy DM: Postsclerotherapy hyperpigmentation: a histologic evaluation. *J Dermatol Surg Onc* 13:547-550, 1987
40. Weiss RA, Weiss MA: Incidence of side effects in the treatment of telangiectasias by compression sclerotherapy: hypertonic saline vs. polidocanol. *J Dermatol Surg Onc* 16:800-804, 1990
41. Goldman PM: Sclerotherapy for superficial venules and telangiectasias of the lower extremities. *Dermatol Clin* 5:369-379, 1987
42. Thibault P, Wlodarczyk J: Postsclerotherapy hyperpigmentation. The role of serum ferritin levels and the effectiveness of treatment with the copper vapor laser. *J Dermatol Surg Onc* 18:47-52, 1992
43. Goldman MP: Postsclerotherapy hyperpigmentation. Treatment with a flashlamp-excited pulsed dye laser. *J Dermatol Surg Onc* 18:417-422, 1992
44. Tafazzoli A, Rostan EF, Goldman MP: Q-switched ruby laser treatment for postsclerotherapy hyperpigmentation. *Dermatol Surg* 26(7):653-656, 2000
45. Davis LT, Duffy DM: Determination of incidence and risk factors for postsclerotherapy telangiectatic matting of the lower extremity: a retrospective analysis. *J Dermatol Surg Onc* 16:327-330, 1990
46. Goldman MP, Sadick NS, Weiss RA: Cutaneous necrosis, telangiectatic matting, and hyperpigmentation following sclerotherapy. etiology, prevention, and treatment. [review]. *Dermatol Surg* 21(1):19-29, 1995
47. Weiss MA, Weiss RA: Efficacy and side effects of 0.1% sodium tetradecyl sulfate in compression sclerotherapy of telangiectasias: Comparison to 1% polidocanol and hypertonic saline. *J Dermatol Surg Oncol* 17:90-91, 1991
48. Smit JM et al: Pulsed dye laser treatment, a review of indications and outcome based on published trials. *Br J Plast Surg* 58(7):981-987, 2005

49. Goldman MP: Sclerotherapy treatment for varicose and telangiectatic leg veins. In: *Cosmetic Surgery of the Skin*, edited by WP Coleman, CW Hanke, TH Alt, S Asken. Philadelphia, B.C. Decker, 1991, p. 197-211
50. Feied CF: Deep vein thrombosis: the risks of sclerotherapy in hypercoagulable states. *Semin Dermatol* **12**:135-149, 1993
51. Bergan JJ, Weiss RA, Goldman MP: Extensive tissue necrosis following high-concentration sclerotherapy for varicose veins. *Dermatol Surg* **26**(6):535-541, 2000
52. Proebstle TM et al: Thermal damage of the inner vein wall during endovenous laser treatment: key role of energy absorption by intravascular blood. *Dermatol Surg* **28**(7):596-600, 2002
53. Proebstle TM et al: Endovenous treatment of the greater saphenous vein with a 940-nm diode laser: thrombotic occlusion after endoluminal thermal damage by laser-generated steam bubbles. *J Vasc Surg* **35**(4):729-736, 2002
54. Min RJ et al: Endovenous laser treatment of the incompetent greater saphenous vein. *J Vasc Interv Radiol* **12**(10):1167-1171, 2001
55. Navarro L, Min RJ, Bone C: Endovenous laser: a new minimally invasive method of treatment for varicose veins—preliminary observations using an 810 nm diode laser. *Dermatol Surg* **27**(2):117-122, 2001
56. Min RJ, Khilnani N, Zimmet SE: Endovenous laser treatment of saphenous vein reflux: long-term results. *J Vasc Interv Radiol* **14**(8):991-996, 2003
57. Sharif MA et al: Endovenous laser treatment for long saphenous vein incompetence. *Br J Surg* **93**(7):831-835, 2006
58. Mozes G et al: Extension of saphenous thrombus into the femoral vein: a potential complication of new endovenous ablation techniques. *J Vasc Surg* **41**(1):130-135, 2005
59. Proebstle TM et al: Endovenous treatment of the great saphenous vein using a 1,320 nm Nd:YAG laser causes fewer side effects than using a 940 nm diode laser. *Dermatol Surg* **31**(12):1678-1683, 2005
60. Pannier F, Rabe E, Maurins U: First results with a new 1470-nm diode laser for endovenous ablation of incompetent saphenous veins. *Phlebology* **24**(1):26-30, 2009
61. Ramelet AA: Muller phlebectomy. A new phlebectomy hook. *J Dermatol Surg Onc* **17**:814-816, 1991
62. Ramelet AA: Le Traitement Des Telangiectasies: Indications De La Phlebectomie Selon Muller. *Phlebol* **47**(4):377-381, 1995
63. Weiss RA, Weiss MA: Early clinical results with a multiple synchronized pulse 1064nm laser for leg telangiectasias and reticular veins. *Dermatol Surg* **25**(5):399-402, 1999
64. Sadick NS et al: Clinical and pathophysiologic correlates of 1064-nm Nd:Yag laser treatment of reticular veins and venulectasias. *Arch Dermatol* **137**(5):613-617, 2001
65. Kaudewitz P, Klovekorn W, Rother W: Effective treatment of leg vein telangiectasia with a new 940 nm diode laser. *Dermatol Surg* **27**(2):101-106, 2001
66. Omura NE et al: Treatment of reticular leg veins with a 1064 nm long-pulsed Nd:YAG laser. *J Am Acad Dermatol* **48**(1):76-81, 2003

