Bleeding from varicose veins — still potentially fatal

A case report

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Summary

A 57-year-old woman was admitted to hospital with spontaneous profuse haemorrhage from a small acute varicose ulcer of the left leg. She was in shock, semicomatose and anaemic because of blood loss. The haemorrhage was easily controlled by elevating the leg, applying compression bandages and administering a blood transfusion. The patient made an uneventful recovery.

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Varicose veins of the lower limbs are a slowly progressive, non-lethal, increasingly disabling venous disease well known to ancient surgeons; Hippocrates discussed their treatment at considerable length about 2 500 years ago.[1]

Varicosities of the lower-limb veins constitute the most common of all vascular disorders in the legs, and an effective means of prevention and the perfect cure for this common malady are not yet forthcoming. Contrary to popular belief, fatal haemorrhage from varicose veins, though uncommon, is by no means rare.[2-4] We describe a case of spontaneous haemorrhage following ulceration of varicose veins.

Case report

A 57-year-old obese coloured female was admitted to Tygerberg Hospital with a history of severe spontaneous venous haemorrhage from a small varicose ulcer of recent origin. For the past 15 years she had had varicose veins in her left leg which had never bled. During the previous month she had attended a day hospital for the treatment of hypertension and a small varicose ulcer of the left leg which had been present for 4 weeks. There was no history of preceding deep-vein thrombosis, trauma or ulceration of the skin.

On examination the patient was semicomatose, her blood pressure was 90/60 mmHg, pulse rate 110/min, haemoglobin concentration 9,5 g/dl and white cell count 15,6 x 10^9/l. Examination of the left leg revealed haemorrhage from a 1,5 cm diameter ulcer of the left lateral malleolus, which was surrounded with cutaneous pigmentation overlying a varicose vein. The base of the ulcer contained fresh blood clot and was situated over a perforated superficial venous varix. The rest of the lower leg was markedly affected by varicose veins, associated saphenofemoral venous incompetence, and filling from incompetent ankle perforators. There were no signs of arterial insufficiency.

The clotting profile, platelet count, blood glucose and serum creatinine levels were normal.

Treatment consisted of elevation of the affected leg, compression dressings and a blood transfusion. The patient made an uneventful recovery but refused surgery.

Discussion

Haemorrhage from varicose veins may be classified as spontaneous, traumatic or subcutaneous.[2] Spontaneous haemorrhage seems to be the most common and dangerous type; it occurs from varicosities or ulcers with no history of trauma in most cases. The patient most at risk is the solitary elderly patient with long-standing varicose veins;[2,4] 23 fatal cases of haemorrhage from varicose veins were reported in England and Wales in 1971.[4] Although the probability of significant bleeding from varicose veins is unknown, another 4 people died in England in 1973 as a result of bleeding leg varicosities.[4] In 3 of the cases the bleeding had been from a small shallow ulcer with no suggestion of trauma, as in our case, and each of the victims had died without attention while lying in bed.

Two types of ulcers have been described by Evans *et al.*,[4] acute perforative, as in our patient, and chronic ulcerative. They reported that the acute type of ulcer healed relatively quickly and any haemorrhage occurred from superficial veins adjacent to the ulcer. The chronic ulcerative process produced large deep ulcers with considerable cutaneous pigmentation, eczema, and subcutaneous fibrosis; these ulcers healed poorly and were the result of long-standing deep-venous insufficiency.

Haemorrhage from varicose veins should be promptly treated by hospitalization, pressure bandaging and blood transfusions when indicated, as in our patient. Recognition of the risk of fatal haemorrhage may enable preventive measures to be undertaken. In the long term simple bandaging and allowing the ulcer to heal is not sufficient, as is shown by the reported incidence of recurrent ulceration and sequential haemorrhage.[4] The surgical treatment of those cases with primary varicose veins includes high ligation and division at the saphenofemoral junction, and stripping of varicosities. Eradication of incompetent ankle perforating veins may be achieved by either the extrafascial or the subfascial operation described by Dodd and Cockett.[2]

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REFERENCES

1. Adams F (tr). *The Genuine Works of Hippocrates*, vol 2. New York: W. Wood, 1886: 305.
2. Dodd H, Cockett FT. *The Pathology and Surgery of the Veins of the Lower Limb*. 2nd ed. London: Churchill Livingstone, 1976: 64.
3. Harman RRM. Haemorrhage from varicose veins. *Lancet* 1974; **i**: 363.
4. Evans GA, Seal RME, Evans DMD, Craven JL. Spontaneous fatal haemorrhage caused by varicose veins. *Lancet* 1973; **ii**: 1359-1362.