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Case Report

Localised varicosities in a 39-year-old tissue transfer to the lower limb

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SUMMARY. **The typical symptoms and signs of venous stasis disease with ulceration were found in a lower limb reconstruction within the tissues of a tube pedicled abdominal wall tissue transfer, performed 39 years previously. Varicosities were found on venogram to be limited to the donor tissue only.**

Case report

A 57-year-old man was admitted to hospital with a 3-week history of ulceration of the left leg. In 1952–53 he had undergone late reconstruction of a non-healing burn, sustained at the age of 3. An abdominal wall tubed pedicle was "waltzed" via the right wrist from the right groin to the left leg in 4 stages in Oxford.

On clinical examination, an old but stable burn scar was found adherent to the pretibial periosteum of the middle third of the leg. Immediately below this, the swollen abdominal skin flap presented with all the signs of venous stasis including subcutaneous varicosity and adjacent breakdown of the skin flap at its medial edge.[1] The shin skin adjoining the flap showed signs of chronic venous insufficiency (not seen on the opposite leg), possibly related to the original injury (Fig. 1).

A venogram demonstrated an essentially normal venous pattern with localised varicosity in the flap. No abnormal perforator could be visualised (Fig. 2). The ulcer responded promptly to compression bandaging,[2] but broke down again as soon as this was stopped.

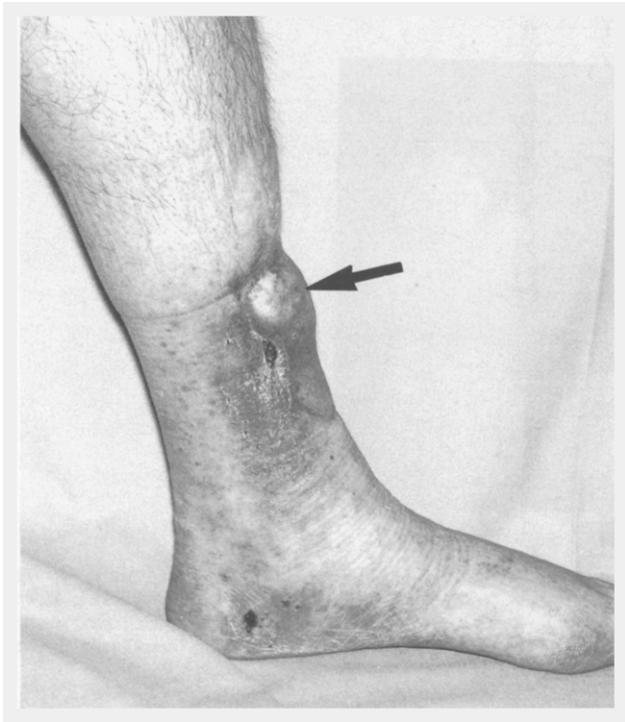

Fig. 1

Figure 1—Prominent varicosities are visible and palpable in the abdominal tube pedicled tissue. Ulceration is present at the junction between the flap and the adjacent skin. Signs of chronic venous insufficiency extend posteriorly and distally on the shin. The punctate erythema on the ankle and foot was biopsied as pityriasis lichenoides et varioliformis acuta.

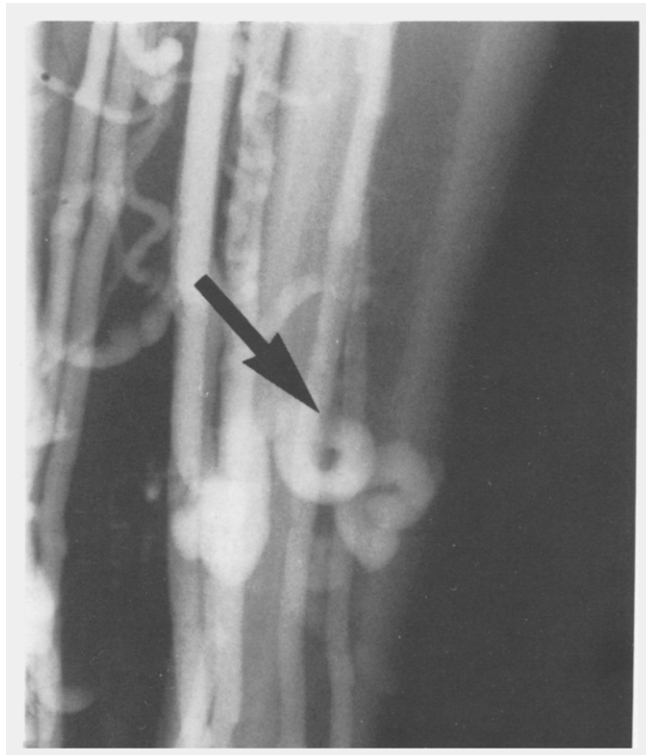

Fig. 2

Figure 2—A standard venogram (antero-posterior view) is normal, except for the three varicosities corresponding to the area of the groin flap. The arrow points to the middle varicosity.

Discussion

The aetiology of venous stasis disease has been debated widely in the past. Incompetence of valves between the deep and superficial venous system causes high back pressure. This is generally quoted as the cause of the problem.[3] However, it is unusual to find a single localised varicosity within an otherwise normal venogram. In this instance the venous varicosity occurred in a flap transplanted from the abdominal wall to the lower limb almost 40 years previously.

The possibility of varicosities, limited to the donor tissue only, occurring in lower limb reconstruction, is of interest in view of the problem encountered in this case. The veins of distant tissue might not possess the adequate valvular protection mechanism needed to withstand high back pressure long term. An alternative explanation could be that the varicosities observed in this staged tissue transfer began as capillaries, either during the reorientation of the blood flow during the tubed stage, or when budding into the healing inset of the flap (inosculation). As very thin walled vessels, these would be more liable to become varicose than the more substantial donor vessels of a free tissue transfer.

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