A 56 year-old Caucasian female presented with generalised reticulate telangiectasia that were confluent over the dorsal forearms (Fig 1). There were no associated symptoms. Her present concern was the cosmetically undesirable appearance of her forearms.

The telangiectases initially appeared on the lower limbs after the onset of puberty. The vessel ectasia had steadily increased in colour-intensity and vessel density with extension over the upper limbs, abdomen and upper back. Her single pregnancy did not appear to influence the telangiectases.

Her past medical history included hypercholesterolemia, hypertension and obesity. Chronic back pain required periods of prolonged bed-rest. In the preceding 12 months, she experienced recurrent pulmonary embolic episodes precipitated by the periods of immobility.

Examination showed diffuse and reticulate to confluent telangiectases involving the upper limbs (primarily dorsum), upper back, abdomen and lower limbs. There was relative sparing of the face, palms and soles. There was complete blanching on diascopy. Isolated cherry angiomas 1-2mm diameter were present. Skin perfusion to the fingertips was normal. There was no evidence of upper or lower limb venous congestion, superficial varicosities, or musculoskeletal deformities.

The patient had treatment 30 years previously. Her legs had been previously treated with carbon dioxide slush (in her 20s) with lasting improvement. However, the treatment had been extremely painful and complicated by extensive blistering and infection, and she did not continue with this treatment method.

Doppler and duplex studies showed no superficial or deep venous abnormalities either in anatomy or function. The duplex mapping (sensitive to vessels of 1 mm in diameter) revealed no direct communication between the cutaneous telangiectases and any underlying aberrant feeder vessels or perforating veins. The cutaneous telangiectases themselves were beyond the frequency-resolution of the standard 12 MHz frequency ultrasonic probe.

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A skin biopsy from the patient revealed prominent dilated capillaries within the superficial dermis (Fig 2). These have uniform endothelial cells. There was an eosinophilic PAS positive membranous zone around each of the vessels. Immunoperoxidase labelled antibodies to membranous zone were positive for factor VIII, negative for CD34, vimentin and actin. Mast cells were not increased.

SCLEROTHERAPY

Standard injection sclerotherapy 0.08% sodium tetradecyl sulphate, diluted from Fibrovein 3% (Australasian Medical & Scientific Limited) was undertaken. Each treatment session lasted 30 minutes during which up to 50 distinct superficial intravascular injections were administered with a 30-gauge needle on a 5 ml syringe.

The treatment areas were separated into fields of 2 cm in diameter where 2-3 distinct injections were required to achieve temporary telangiectatic blanching of the selected field. The blanching followed intravascular injection of the sclerosant and steady infusion pressure was held to maintain a blanch time of 3-5 seconds (Fig 3a-c). Immediately following injection of sclerosant, there was reactive erythema and mild urticaria over the treated field. Frequently, microthrombi of the treated ectatic vessels became apparent (Fig 3d, 4) immediately post-injection.

Post-sclerotherapy, compression was applied to the treated areas (Fig 5). Crepe bandaging with overlying “tubigrip” was applied to the upper limbs, while the lower limbs were continuously compressed with grade 1 graduated compression stockings. There was significant improvement in the condition after two sessions two weeks apart.
DISCUSSION

Progressive essential telangiectasia is a rare condition characterised by widespread telangiectasia that usually commences on the lower limbs. These develop independent of varices in the subcutaneous veins. The condition is more common in women and progression of lesions is often gradual. The clinical picture can be diffuse or localised, macular, plaque-like or retiform, and discrete or confluent. The presentation is often chronic with no apparent systemic associations. A peripheral and unilateral variant of essential telangiectasia has also been reported.

Cutaneous telangiectases can be associated with systemic diseases such as syphilis, dermatomyositis, scleroderma, SLE, cutaneous polyarteritis, hereditary haemorrhagic haemangiomatosis, metastatic carcinoma, angio-keratoma corporis diffusum, ataxia-telangiectasia, portal cirrhosis, and the congenital dysplastic angiopathies but other signs and investigations will easily separate these from the essential telangiectasia subtype.

The onset of essential telangiectasia is most frequently noted around puberty with exacerbation during pregnancy, suggesting increased responsiveness of these cutaneous vessels to oestrogen. Although this has been observed for the peripheral and unilateral dermatomal telangiectasia presentations, the largest reported series of generalised essential telangiectasia involving 13 patients (by McGrae and Winkelmann) found the mean age of onset to be 38 years (range: 21 - 60 years). Our case demonstrated a peri-pubertal onset.

Treatment of essential telangiectasia with sclerotherapy and laser, have both been reported to be successful. It has been claimed that sclerotherapy of these lesions requires some care as the vessels are intimately associated with arterioles and cutaneous necrosis can result from inadvertent intra-arteriolar injection. However, there are no available case reports highlighting this particular adverse event. To avoid this adverse effect, we used a very low concentration of sodium tetradecyl sulphate. There is also no documented link between sclerotherapy of essential telangiectasia and subsequent thrombo-embolic phenomenon.

Our case illustrates the technique of injection sclerotherapy in the treatment of generalised essential telangiectasia. The injection sclerotherapy treatment approach for generalised essential telangiectasia is similar to the treatment of commonly encountered lower limb telangiectases with the distinction that with the absence of underlying associated reticular veins, the practitioner can commence treatment with microinjection to the dermal telangiectases. This modality has the advantages of being low cost, well tolerated by patients, effective and quick (in trained hands), and an acceptable cosmetic outcome with minimal adverse events.

REFERENCES