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# Superficial Thrombophlebitis (STP)

## Superficial thrombophlebitis (STP) is an acute inflammatory process resulting from thrombosis usually in dilated varicose veins of the leg.

The acute thrombosis is due to stasis in these dilated, superficial veins. The extent of thrombus varies from a small pea to gross thrombosis of most varices and the great saphenous vein to the sapheno-femoral junction. When ultrasound was first used to study this process, considerable concern was noted when a tail of thrombus was occasionally seen in the lumen of the femoral vein.

The value of vascular ultrasound has been well established because up to 25% of patients with STP have an associated deep thrombosis or pulmonary embolus and a further 10% develop extension on follow-up.

**Symptoms**

This ranges from intense pain and swelling of the affected area to a tender lump. Interestingly patients seem to wait a few days before presenting for medical attention.

**Antibiotics**

This is an inflammatory process, not an infective process. Hence, antibiotics are not indicated. However, antibiotics are often given as a precaution against infection.

**Spontaneous resolution**

Most events usually have relief of symptoms in 2-3 weeks, but take 2-3 months for the thrombus to resolve and the vein to become recannalised. There are usually permanent signs with ultrasound of thickening of the wall, gross incompetence and some areas of residual thrombus on ultrasound examination.

Often a brownish discolouration of the skin over the thrombosis results from melanin production associated with the inflammation and haemosiderin from the breakdown of blood products from the thrombus into the dermis.. This is often permanent, but may become paler with the passage of years.

**Initial Treatment**

Major events require elevation of the limb and bed rest with anticoagulation and intensive medical treatment for pain. A good stocking will assist venous return and help relieve pain. A class 1 or 2, above knee or below knee stocking helps depending on the area and extent of thrombosis.

NB Rest means elevation of the whole leg above the heart; that can only be achieved by bed rest with elevation of the foot of the bed. So often I see patients in a chair with the legs dependent or on a stool; this does not achieve good venous drainage, but leads to further stasis.

The more common minor event is not so distressing and the patient only needs analgesia and an elastic stocking for support and relief of pain. Those patients without obvious varicosities need to be suspected of malignancy or a thrombotic disorder.

**Operative Procedures**

Referral to a vein treatment centre that can offer the full spectrum of treatment is recommended. The best treatment depends on the areas of incompetence, but invariably involves surgery or laser ablation. Laser ablation has become the treatment of choice

because it achieves good long term results from an office based procedure. Sclerotherapy is now seldom recommended for GSV incompetence because of a high rate of recannalisation.

Both laser and surgery achieve similar results in the long term. Overall, patients prefer laser if the cost (approx. $2000 out of pocket expenses) is not a problem.

An issue is whether to recommend early intervention or wait until the thrombus has resolved. It depends a lot on the time of presentation; if > 1 week then best to let settle and treat definitively after 2-3 months. If < 1 week then an early referral is indicated. Surgery is the only treatment for early intervention if the GSV is full of thrombus, but if the GSV is clear then laser can be used.

**Associated Deep Venous Thrombosis**

An ultrasound scan is indicated to exclude DVT in all cases with SVT. Recently, a French study reported 25% of cases with SVT to have a DVT or pulmonary embolus. It does not appear to be as high as that here in the Hunter area, but a DVT scan must be performed to exclude extension into calf or truncal veins. In addition, 10% can progress within 1 month to a DVT.

If a calf vein is involved then some anticoagulation is indicated. I prefer 10 days of Clexane or equivalent with a firm elastic stocking. A review scan after 7 days is required to make sure that there has been no extension.

**Recurrent thrombophlebitis**

This is inevitable as the cause remains; ie the varicose veins. Hence, definitive treatment for the varicose veins is indicated to prevent this.

## At A Glance

- Thrombophlebitis is an inflammatory process; not an infection .
- Ultrasound examination is necessary to confirm the diagnosis and to exclude DVT.
- Acute management options include analgesia, NSAIDs, compression stockings and anti-coagulation (Clexane +/- Warfarin) in more sever cases.
- Recurrence is inevitable so plans for definitive treatment should be made.
- Laser is now the most popular treatment for varicose veins as it can be performed as an office procedure under local anaesthetic and involves minimal down-time.
- Surgery, laser, sclerotherapy and vascular ultrasound are readily available at Vascular Health Care, Gateshead and Hunter Vein Clinic at East Maitland and Toronto.

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