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**Cochrane Nursing Care Field – Cochrane Review Summary**

**Prepared for the**

# British Journal of Community Nursing

## *TITLE: Treatment for superficial thrombophlebitis of the leg (review)*


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- ## **Background**:

Superficial thrombophlebitis (ST) or superficial venous thrombosis is a relatively common inflammatory thrombotic disorder, and involves the development of a thrombus in a superficial vein located near the surface of the skin. Signs and symptoms include pain and a reddened, warm and tender cord extending along the vein as well as erythema and oedema in the surrounding tissue. Patients with ST are at risk of developing more serious conditions including deep vein thrombosis (DVT), pulmonary embolism (PE) and venous thromboembolism (VTE) (Quenet, 2003, Unno, 2002).

The majority of cases of ST develop in varicose veins on the lower limbs. Other risk factors include immobilisation, trauma, postoperative states, pregnancy, puerperium (the period immediately following childbirth), active malignancy, autoimmune diseases, use of oral contraceptive pills or hormonal replacement therapy, advanced age, obesity and a history of previous venous thromboembolism (de Moerloose, 1998).

There is a lack of consensus on the best practice for management of patients with ST and current strategies include surgery, elastic stockings and non-steroidal anti-inflammatory drugs which are aimed at reducing inflammation and pain, as well as the use of several anti-coagulant medications.

- ## **Objective/s:**

The primary objective of this review was to assess the efficacy and safety of topical, medical and surgical treatments for ST of the leg, related to the improvement of local symptoms and reduction of the complications associated with thromboembolisms.

NB: This was the second update of a review originally conducted in 2007 (Di Nisio et al, 2007).

- ## **Intervention/Methods:**

The review included randomised controlled trials (RCTs) that evaluated topical, medical and surgical treatments for ST of the legs. The participants included hospitalised and non-hospitalised patients with a diagnosis of ST in the lower extremities.

The primary outcomes included:

1. Symptomatic VTE;
2. Major bleeding.

The secondary outcome measures considered were:

- Symptomatic PE;
- Symptomatic DVT or progression of ST into DVT;
- Extension of ST;
- Recurrence of ST;
- Signs and symptoms;
- Quality of life;
- Mortality;
- Adverse effects of treatment;
- Arterial thromboembolic events.

- ## **Results:**

There were 33 studies included in this review, representing a total of 7296 participants. The interventions and comparisons varied widey between the studies. In a large placebo-controlled RCT (n = 3002) the administration of sub-cutaneous fondaparinux was associated with a significant reduction in symptomatic VTE and ST recurrence compared to placebo (moderate-quality evidence). In a smaller study (n = 472) that compared fondaparinux to rivaroxaban, a non-significant reduction of symptomatic VTE was identified. No major episodes of bleeding were reported in either study.
The results of a study that compared low molecular weight heparin (LMWH) to a placebo showed a reduction in the extension and recurrence of ST (low-quality evidence) and no significant effects on symptomatic VTE or major bleeding (low-quality evidence).
Overall the use of topical treatments was found to improve local symptoms. Surgical treatment combined with elastic stockings was associated with a lower VTE rate and ST progression compared to the use of elastic stockings only.

- **Conclusions**

The authors reported that the prophylactic use of fondaparinux for 45 days was a valid treatment strategy for the majority of patients with ST of the legs. The results for topical treatment or surgery was too limited for conclusions to be drawn on their efficacy in preventing progression to VTE

- **Implications for Practice:**

Nurses should be aware that patients with ST of the legs are at risk of developing more serious disorders including DVT, PE and VTE and should ensure that they monitor them appropriately for any signs and symptoms of deterioration. They should also ensure that preventative actions are in place to mitigate these risks.

- **References:**

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