

Superficial Thrombophlebitis

Superficial thrombophlebitis is characterized as inflammation and thrombosis of superficial veins related to IV catheter irritation. Inflammation causes the affected area to appear red, feel warm, and look swollen. Under the surface of the skin, a palpable cord-like vein may feel hard and tender. Interventions include removal of the IV catheter and elevating the extremity. A warm compress may also be used to help alleviate the swelling. Considerations to help prevent superficial thrombophlebitis include maintaining aseptic technique and rotating injection sites every 72 hours. For information related to deep vein thrombophlebitis, refer to the Picmonic on "Venous Thromboembolism (DVT) Assessment."



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Cause/Mechanism

IV Catheter Irritation

IV Catheter-cat Irritated

Irritation of the IV catheter inserted into arm veins may lead to superficial thrombophlebitis. Causes include prolonged IV insertion or using a catheter that is too large for the vein. Administering an inappropriate IV solution, such as hypertonic parenteral nutrition solution into a peripheral vein, is another cause of superficial thrombophlebitis.

Assessment

Erythema

Earth-red

The presence of a thrombus activates the inflammatory response. After the inflammation related to superficial thrombophlebitis subsides, the skin along the affected vein may appear hyperpigmented and erythematous.

Cord-like Vein

Cord-like Vine

A cord-like palpable vein is a defining characteristic of superficial thrombophlebitis. Under the surface of the skin, the affected vein feels hard and tender to the touch. A nodular cord is caused by a thrombus within the affected vein. Due to the inflammatory response, the area may appear red and swollen.

Edema

Edamame

The inflammatory response associated with superficial thrombophlebitis causes warmth and edema in the affected area.

Interventions

Remove IV Catheter

Remove IV Catheter-cat

If superficial thrombophlebitis is suspected, immediately stop the infusion and remove the IV catheter to prevent further tissue irritation. The patient's IV should be reinserted above the affected area or in the opposite extremity.

Elevate

[Elevated Arm](#)

Elevating the affected extremity will promote circulation and help decrease swelling caused by the inflammatory process of superficial thrombophlebitis.

Warm Compress

[Warm Compress](#)

In patients with superficial thrombophlebitis, applying a warm compress to the affected site will help increase circulation and decrease discomfort.

Considerations

Rotate Sites Q3 Days

[Rotating \(3\) Tree Day-calendar](#)

Prolonged IV catheter insertion may lead to superficial thrombophlebitis. Rotating the IV insertion site every 3 days (72 hours) may help minimize the risk of developing a thrombus.

Aseptic Technique

[Techniques in A-septic-tank](#)

Aseptic technique minimizes the risk of transmitting microorganisms during invasive procedures, such as IV catheter insertion. Maintaining aseptic technique is critical for preventing the development of superficial thrombophlebitis. If the affected site has purulent drainage, cultures may be collected to determine the causative microorganism.