



SNS COLLEGE OF ALLIED HEALTH SCIENCES
SNS Kalvi Nagar, Coimbatore - 35
Affiliated to Dr MGR Medical University, Chennai



DEPARTMENT: ALLIED HEALTH SCIENCES
COURSE NAME: SURGERY

Topic: Deep vein thrombosis



CASE SCENARIO



- A 51 year old male presented with a complaints of Left Lower Limb swelling associated with a redness of the Skin and the report showed D-Dimer was elevated. How will you diagnose this patient?



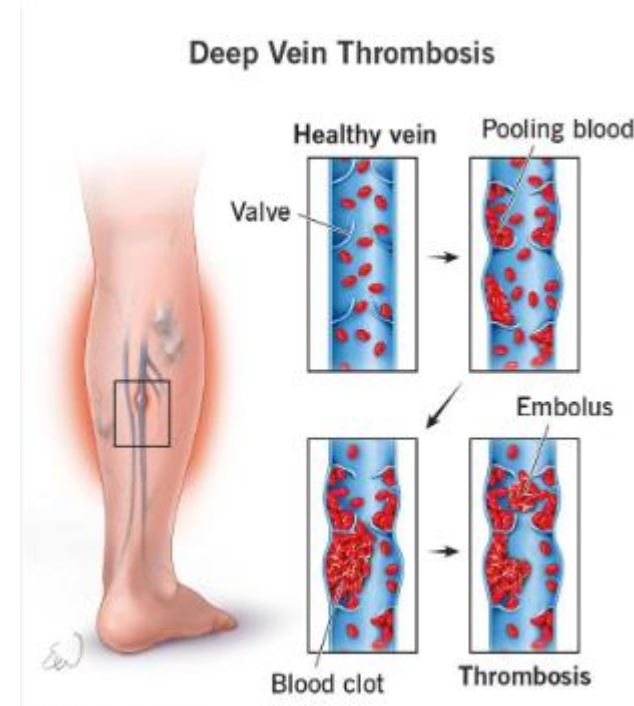
Introduction



DEFINITION-Deep vein thrombosis (DVT) is a type of venous thrombosis involving the formation of a blood clot in a deep vein, most commonly in the legs or pelvis

Other names associated with this condition may include:

- thromboembolism
- post-thrombotic syndrome
- postphlebitic syndrome





Etiology & Risk factors

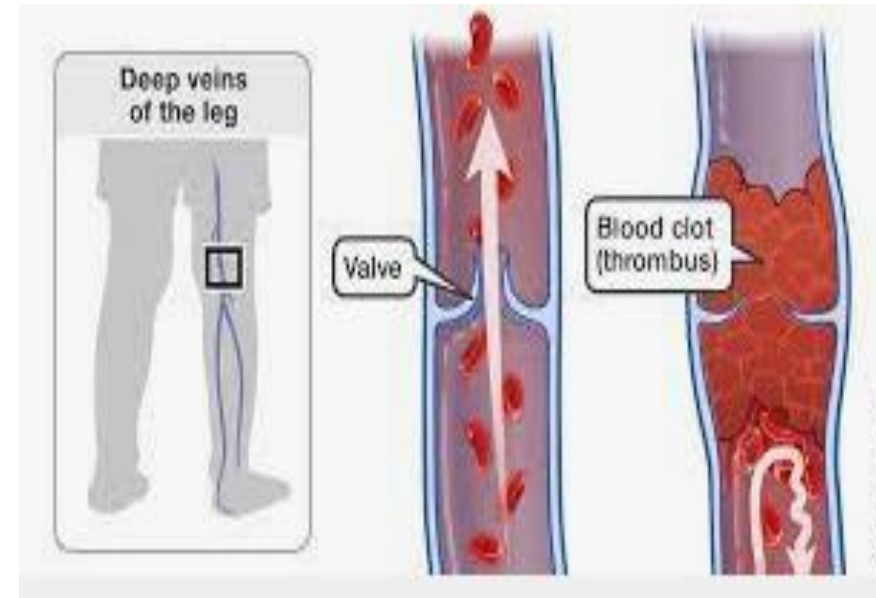


Causes

- The main causes of deep vein thrombosis (DVT) are damage to a vein from surgery or inflammation and damage due to infection or injury.

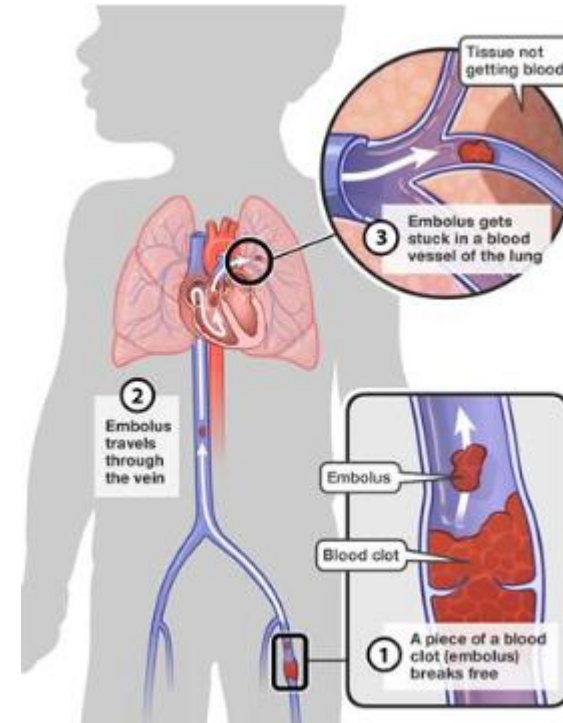
Risk factors

- Age
- Lack of movement
- Pregnancy
- Birth control pills
- Smoking
- Cancer
- Inflammatory bowel disease
- Genetics



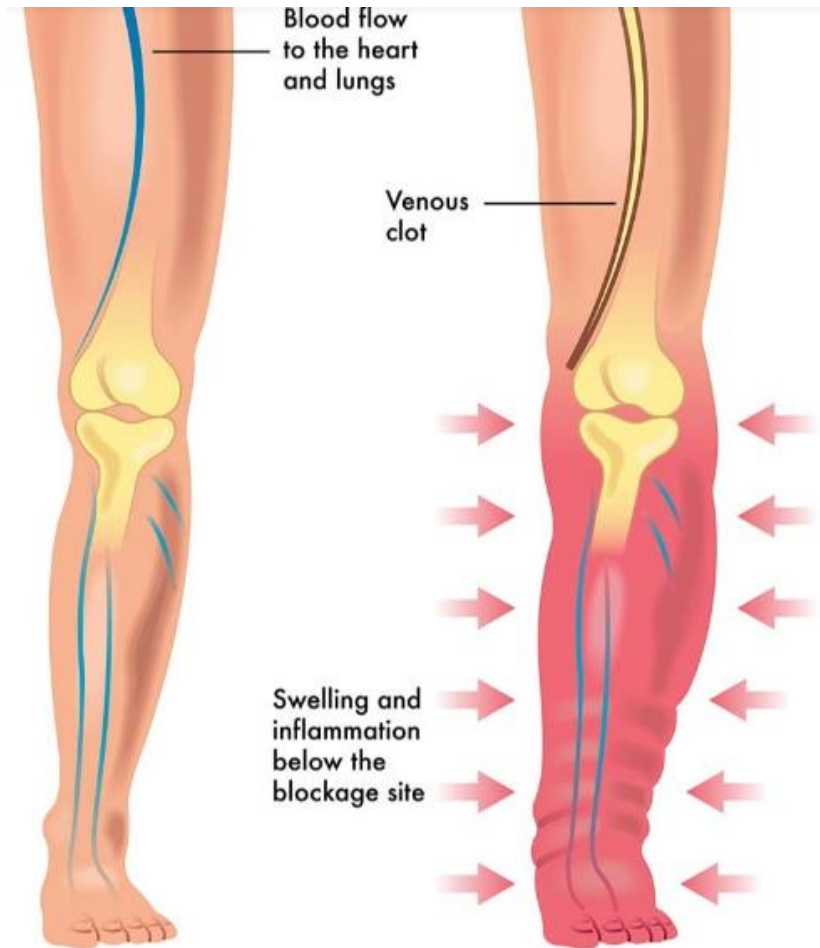
Complication

- Pulmonary embolism
- **Postphlebitic syndrome.** Damage to the veins from the blood clot reduces blood flow in the affected areas. Symptoms include leg pain, leg swelling, skin color changes and skin sores.



Clinical manifestation

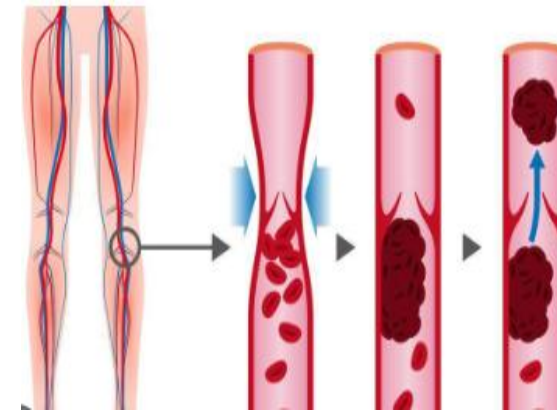
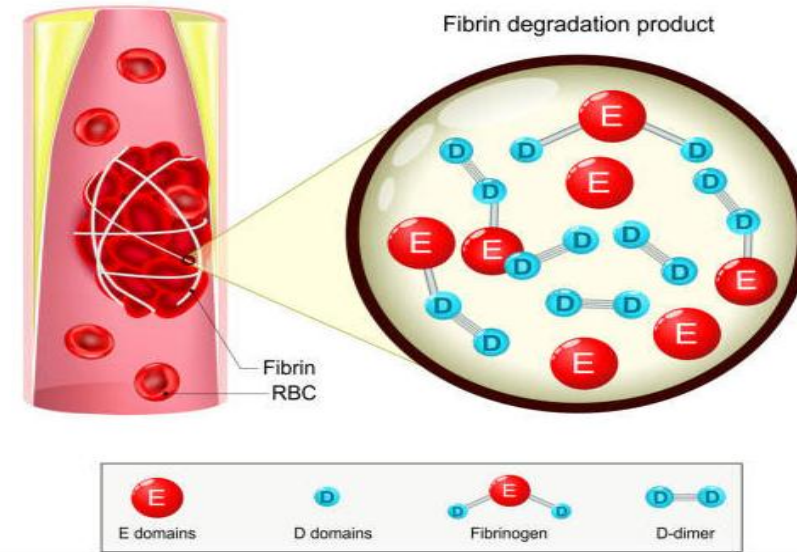
- Leg swelling
- Leg pain, cramping or soreness that often starts in the calf
- Change in skin color on the leg — such as red or purple, depending on the color of your skin
- A feeling of warmth on the affected leg



Diagnosis

- History collection
- Physical examination
- **D-dimer blood test**-This test often can help rule out pulmonary embolism
- **Duplex ultrasound**-his noninvasive test
- **Venography**. This test uses X-rays and dye to create a picture of the veins in the legs and feet. The dye is injected into a large vein in the foot or ankle.
- **Magnetic resonance imaging (MRI) scan**. This test may be done to diagnose DVT in veins of the belly (abdomen).

D-dimer
small protein fragment present in the blood after a blood clot degradation





Assessment 1



1. Other name of DVT
2. What is D-Dimer?
3. Uses of Filters
4. What are the medical management of DVT?
5. Procedure of Thrombectomy

Treatment

There are three main goals to DVT treatment.

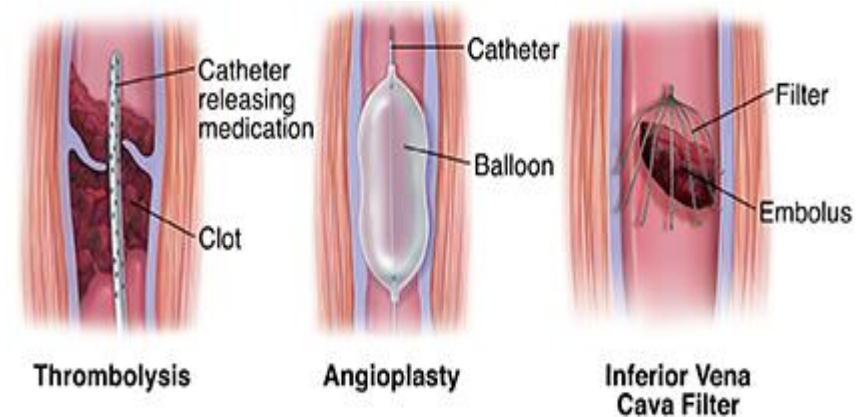
- Prevent the clot from getting bigger.
- Prevent the clot from breaking loose and traveling to the lungs.
- Reduce the chances of another DVT.

Management

- **Filters**-a filter is placed into a large vein — the vena cava — in the belly (abdomen). A vena cava filter prevents clots that break loose from lodging in the lungs.
- **Support stockings (compression stockings)**. These special knee socks help prevent blood from pooling in the legs. They help reduce leg swelling.

Compression stockings

- Compression stockings, also called support stockings, press on the legs, improving blood flow. A stocking butler may help with putting on the stockings.



Medical management

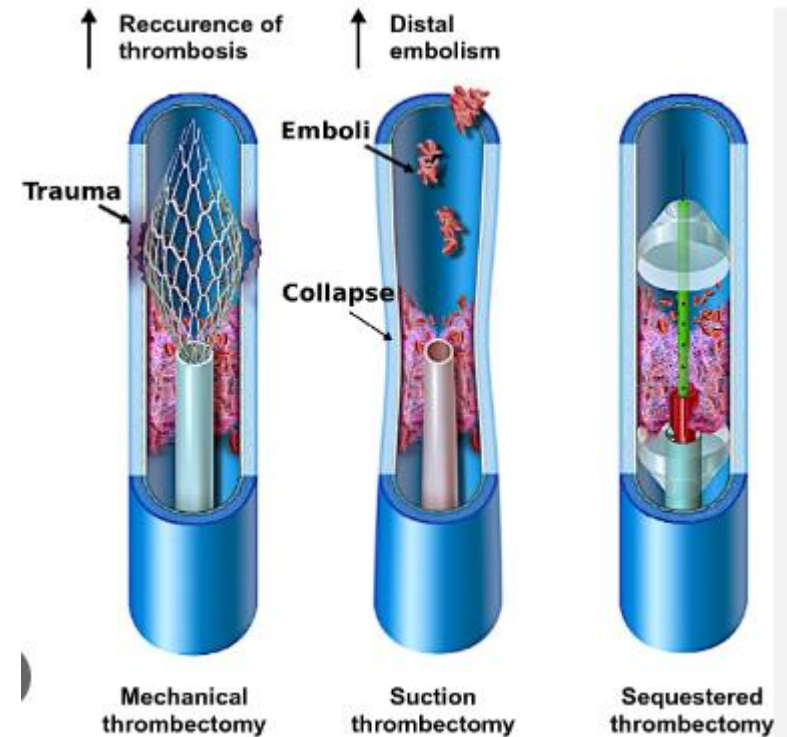
- Anti coagulants
- Thrombolytics

Thrombectomy

- In this procedure, make an incision in a vein or artery above the clot to remove it. Or, they may insert a thin tube called a catheter into a vein in the groin or arm and thread it through blood vessels to reach the clot. Either way, inject a contrast dye into the blood vessel to help pinpoint the clot location. The clot often is in a vein or artery in the arm or leg.
- Usually, a clot must be very large to justify a thrombectomy. In some cases, they insert a special balloon attached to the catheter and inflate it to remove any remaining part of the clot. And they permanently leave a different tube called a stent in the blood vessel.

risks with a thrombectomy, including:

- Excess bleeding during the procedure
- Damage to the blood vessel during surgery
- Infection & A negative reaction to anesthesia





Reference



- The Text Book of Pathology author Nithin chawla
- For further reference –

<https://youtu.be/POMdvRyxlFw?si=829pKgeMS2ccFkyB>