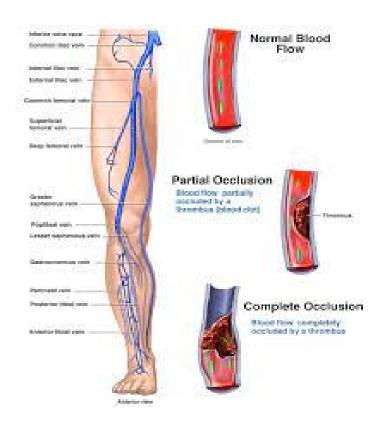
DEEP VEIN THROMBOSIS



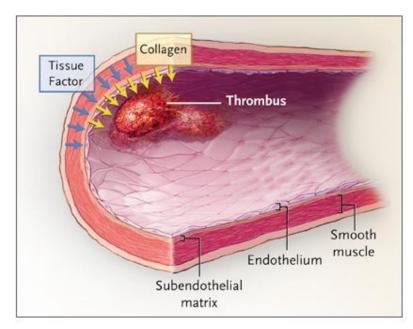
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INTRODUCTION

- DVT occurs when a blood clot (thrombus) forms in one or more of the deep veins in the body, usually in the legs.
- Venous thrombosis- clot formation in veins.
- Main site of thrombus formation occurs femoral vein, poplitial vein, paroneal vein, posterior tibial veins.
- Mostly 67% of Venous thrombosis occurs in paroneal vein / calf veins.
- Most of the DVT occurs in left leg becoz left common iliac vein compressed by left iliac artery.

aggregated <u>platelets</u> and <u>red blood cells</u> tha form a plug, and a mesh of cross-linked <u>fibr</u> protein.

Thrombus



Microclots

obstruct the flow of blood in the capillaries.

Mural thrombi are thrombi that adhere to the wall of a large blood vessel or heart chamber.

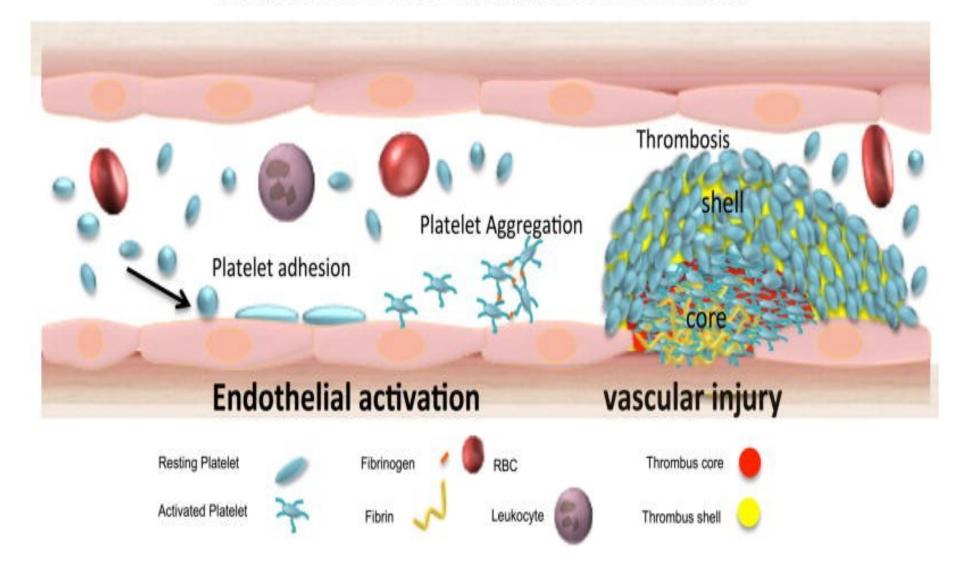
occlusive thrombus

blood flow may be completely cut off in small blood vessels.

Thrombus dislodges — embolus — block blood flow — embolism

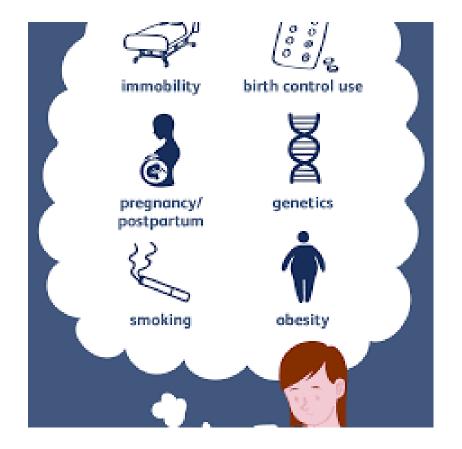


Platelet role in hemostasis and thrombosis



CAUSES

• Virchow's triad: Venous stenosis, Hypercoagulability, Endothelial damage.



- •Prolonged bed rest, spinal injury, surgery, trauma, central venous catheter.
- •Occupational causes.
- •Polycythemia vera, pregnancy.



BLOOD VESSEL FLOW

- Major surgery / trauma
- Malignancy
- Pregnancy (post-partum)
- Inherited thrombophilia
- Infection and sepsis

- Inflammatory Bowel Disease
- Autoimmune condition
- Estrogen therapy
- Inflammation
- Dehydration

VASCULAR DAMAGE

- Thrombophlebitis
- Cellulitis
- Atherosclerosis
- Indwelling catheter / heart valve
- Venepuncture
- Physical trauma, strain or injury
- Microtrauma to vessel wall

CIRCULATORY STASIS

- Immobility
- Venous obstruction (obesity, tumour, pregnancy)
- Varicose veins
- Atrial fibrillation or left ventricular dysfunction
- Congenital abnormalities affecting venous anatomy (e.g., May-Thurner and Paget-Schroëtter syndrome)
- Low heart rate (bradycardia) and low blood pressure

Due to listed etiological factors

Reduced blood flow result in venous blood stasis

Formation of blood clot result in inflammation of veins

Endothelial lining damage causes clotting of blood

Cause thrombophlebitis

DVT

SIGN AND SYMPTOMS

- Odema, erythemia, warmth, tenderness, red purple colour.
- Homan sign
- Moses sign
- DVT may associate with pulmonary embolism swelling in leg and leg pain, cyanosis.
- Sudden dyspnea, chest pain, rapid pulsewarning signs.



INVESTIGATION

- PT/INR
- Venography
- D-Dimer test
- CT angiography
- Doppler ultra sound
- MRI

TREMIMENT

- Anti coagulant-
- ✓ Heprin (lovenox) monitor by aPTT time.
- ✓ Warferin (Coumadin) PT-INR test.
- Thrombolytic streptokinase urokinase.
- Compression stockings 1. Granulation stocking
 - 2. pneumatic stockings.

