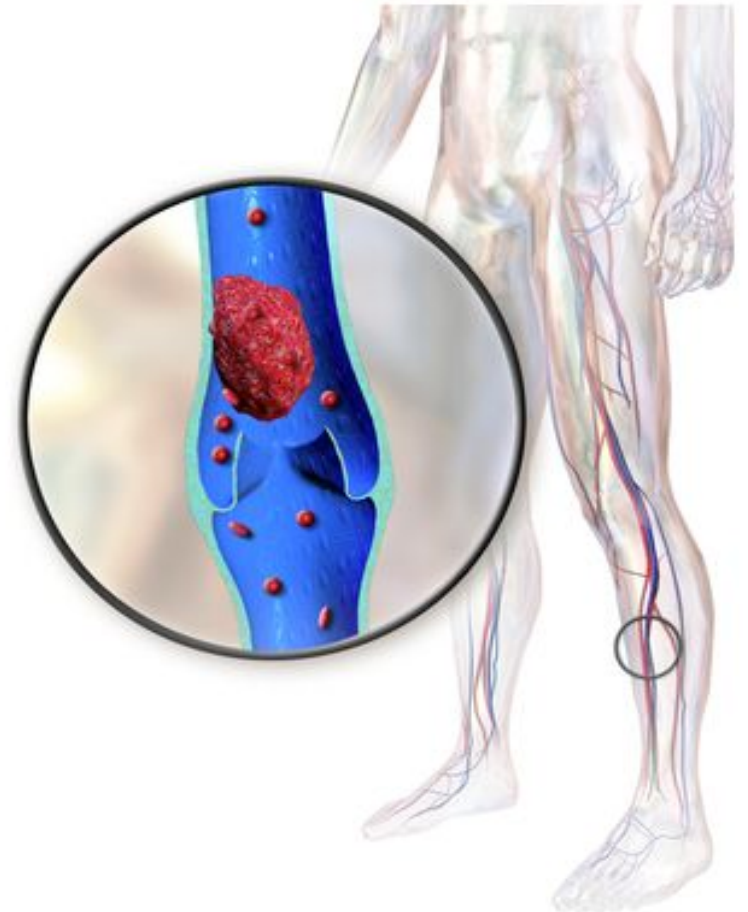
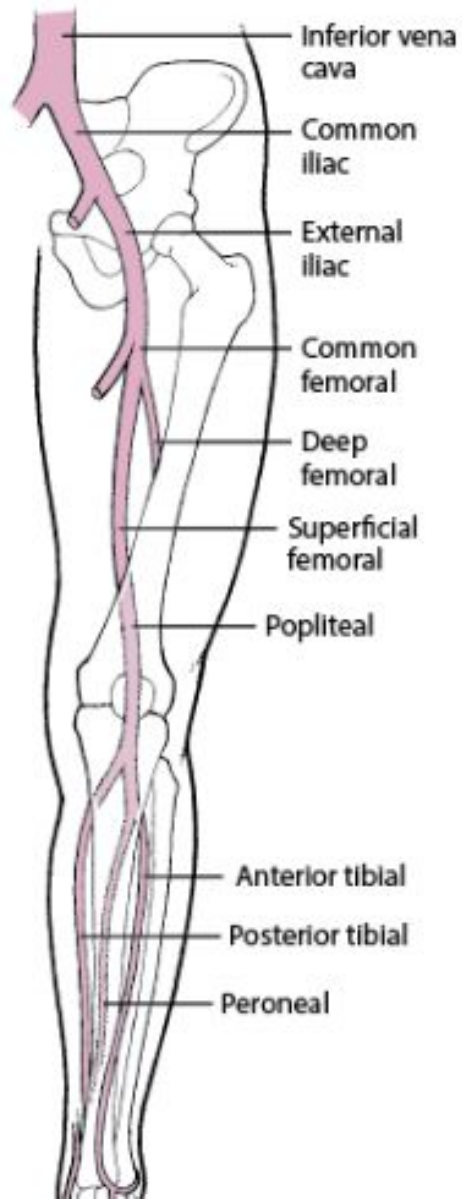


DEEP VENOUS THROMBOSIS

LINDA GRACE NALUGYA
27TH OCTOBER 2023



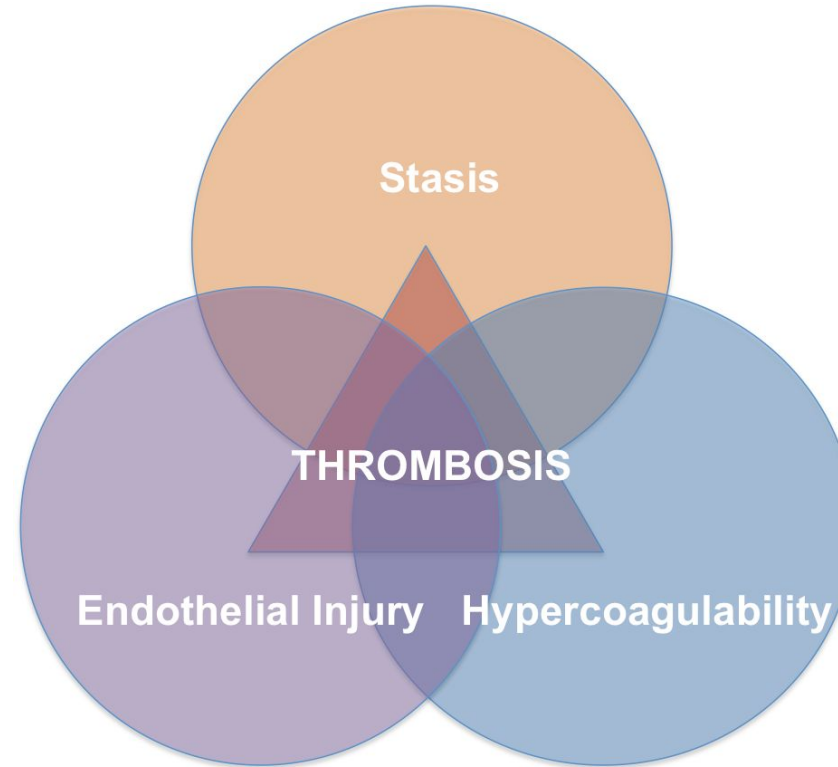
DEEP VENOUS THROMBOSIS



- Abnormal formation of clot in the venous system.
- May occur anywhere
- Most frequent in the lower limbs and pelvis

Virchow's triad for thrombosis

- Endothelial injury/dysfunction
- Hypercoagulability
- Hemodynamic changes (stasis, turbulence-abnormal flow)



ED ASSESSMENT

- **HISTORY**

- Unilateral limb pain and swelling.
- May also complain of leg 'heaviness', pruritus or redness.
- Inquire about DVT risk factors

Risk factors for DVT

- History of immobilization or prolonged hospitalisation/bed rest
- Recent surgery, trauma to the lower extremities
- Obesity
- Prior history of DVT or other clotting disorder
- Malignancy
- Use of oral contraceptives, hormonal therapy
- Pregnancy or postpartum status
- Stroke
- Central venous catheter
- >3 spontaneous miscarriages

ABCDE APPROACH

- Airway;
 - Breathing;
 - ?rate of breathing, ?O₂ sats
-
- Circulation; pulse rate/heart rate
 - Disability;
 - Exposure;

EXPOSURE;

- Unilateral limb swelling (compare sides)
- Calf pain or tenderness on palpation
- Erythema and superficial vein distension
- Dilated collateral superficial veins,
- Pitting odema
- Verify arterial perfusion intact
 - May be reduced in severe DVT

CRITICAL

- Venous infarction (phlegmasia cerulea dolens); severe leg pain, swelling, cyanosis
- May result in foot gangrene.



Search for possible causes

- Pelvic or abdominal masses?
- Pregnancy?
- Malignancy?

The Well's criteria for DVT

Present	Score
Lower limb trauma or surgery or immobilisation in a plaster cast	+1
Bedridden for more than three days or surgery within the last four weeks	+1
Tenderness along line of femoral or popliteal veins (NOT just calf tenderness)	+1
Entire limb swollen	+1
Calf more than 3cm bigger circumference, 10cm below tibial tuberosity	+1
Pitting oedema	+1
Dilated collateral superficial veins (non-varicose)	+1
Past Hx of confirmed DVT	+1
Malignancy (including treatment up to six months previously)	+1
Intravenous drug use	+3
Alternative diagnosis as more likely than DVT	-2

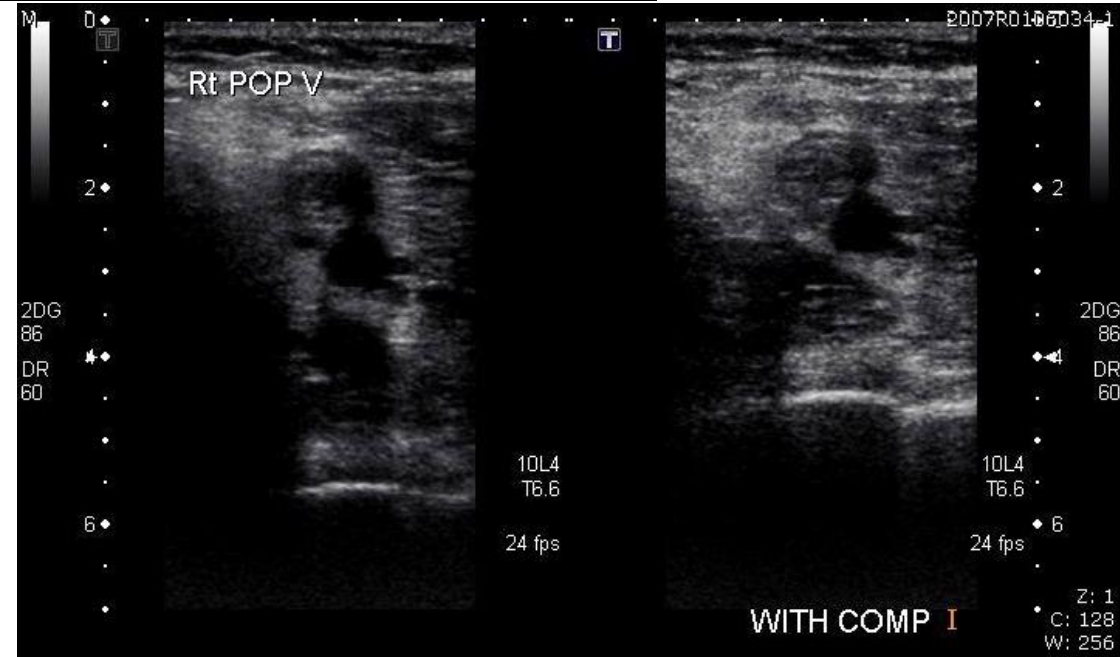
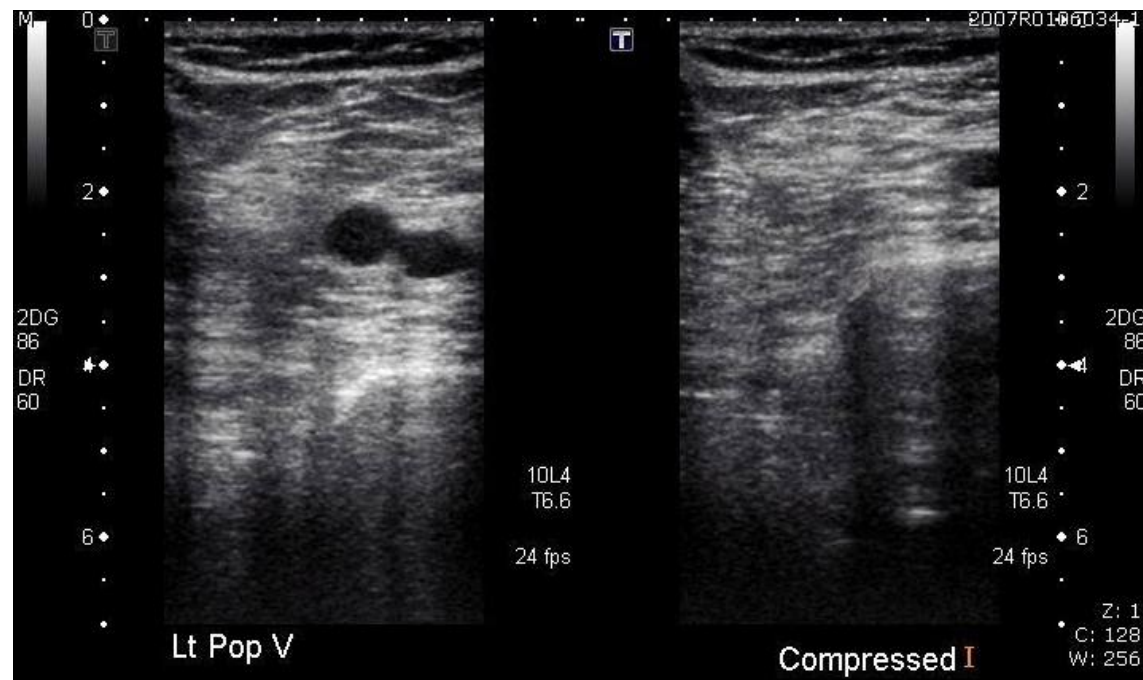
Pre-test Clinical probability of a DVT with score:

- DVT "Likely" if Well's > 1
- DVT "Unlikely" if Wells< 2

Laboratory

- Pregnancy test in women
- Hemoglobin, coagulation studies, renal function
- D-dimer, if available, MIGHT be useful:

- Ultrasound vein
 - Bedside venous compression ultrasound
 - Formal Doppler ultrasound
- CT venography



MANAGEMENT

- Anticoagulation: initially “bridged” with unfractionated heparin or LMWH until reach therapeutic level oral anticoagulants, such as warfarin
- Identification and reversal of the cause.
- Supportive ie Analgesia

- Thrombolysis, thrombectomy, or IVC filter should be guided by a specialist.
 - IVC filter may be used as a temporary prevention of DVT embolization when patient is unable to be anticoagulated safely.
 - If possible, a regular anticoagulation course should be initiated once bleeding risk necessitating filter has resolved.

DVT PROPHYLAXIS

- CAUSE
- DURATION
- AT RISK PATIENT FOR PREVENTION PROHYLAXIS

DVT: Disposition

- Treatment with unfractionated heparin, with increased risk of bleeding,
- Co-morbidities.

- <https://www.msmanuals.com/professional/multimedia/quiz/deep-vein-thrombosis>
- <https://www.msmanuals.com/professional/cardiovascular-disorders/peripheral-venous-disorders/deep-venous-thrombosis-dvt>