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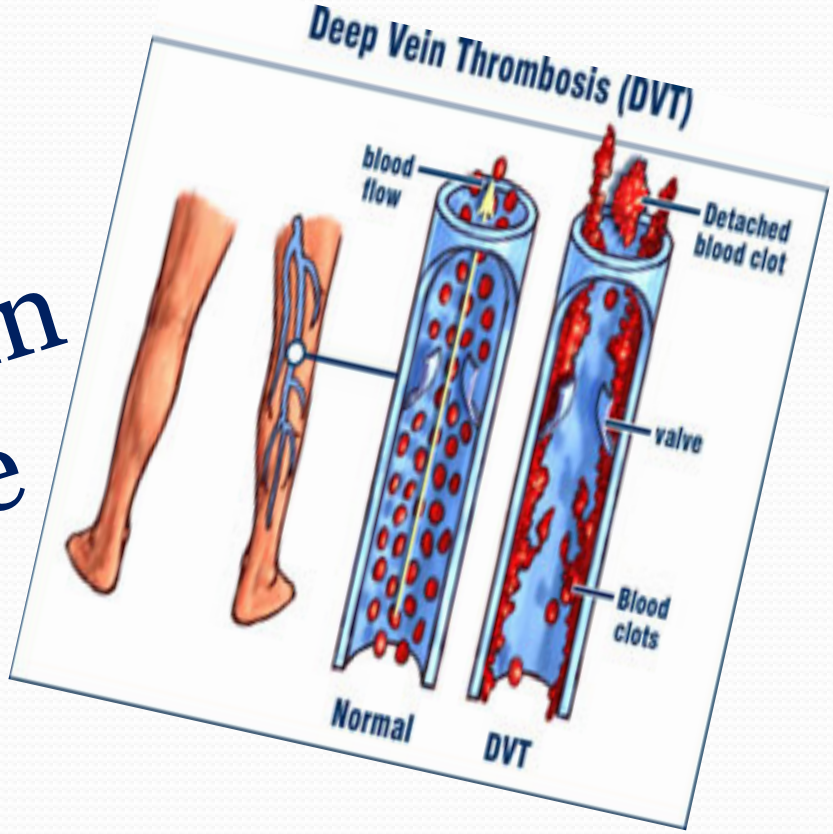
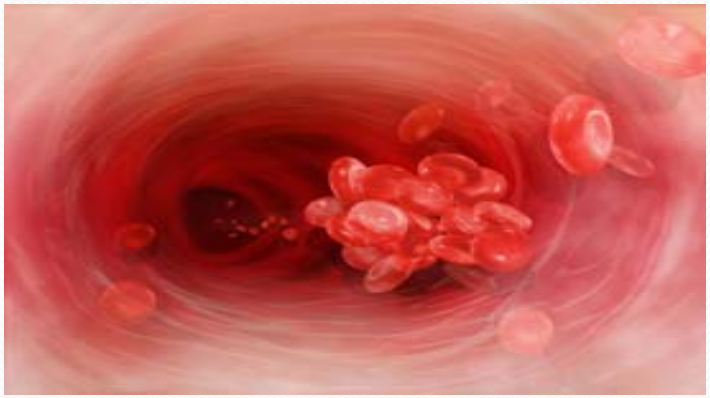
Anesthetic Management of Pregnant Patients in Labor with Acute Deep Vein Thrombosis

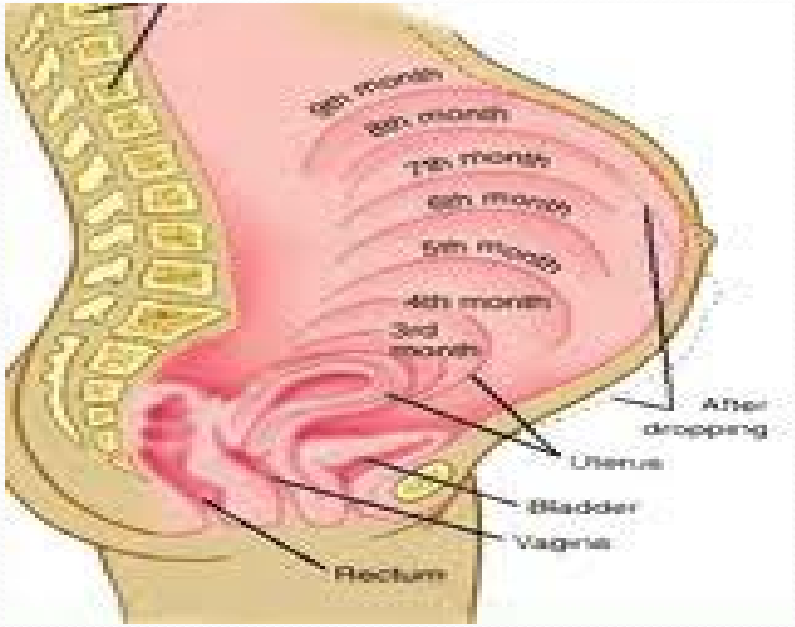


By Christine Safwat

The aim of this work is to focus light on perioperative anesthetic management of pregnant patient in labor with acute deep vein thrombosis which is more common to occur in pregnant women compared to non pregnant women.



Physiological Changes in Pregnancy



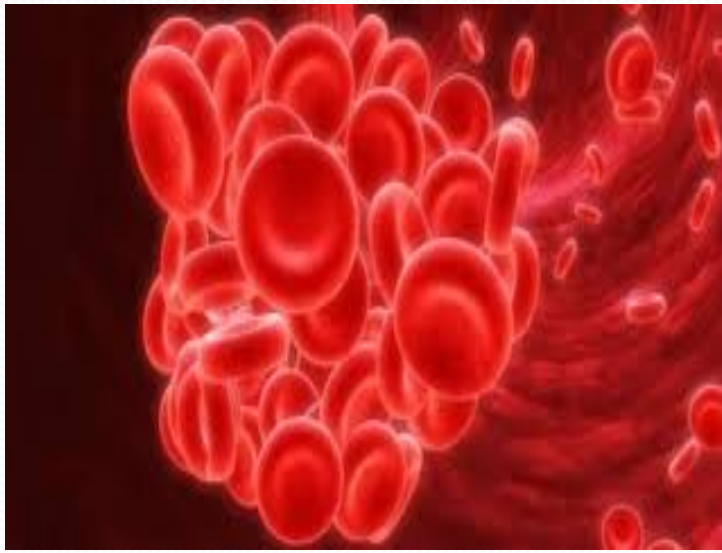
Pregnancy produces profound physiological changes that alter the usual responses to anesthesia. Many of these changes are useful to the mother in tolerating the stresses of pregnancy and delivery.

These changes include:

- Hematological changes
- Cardiovascular system changes
- Respiratory system changes
- Gastrointestinal system changes
- Hepatic changes
- Renal changes
- Central nervous changes

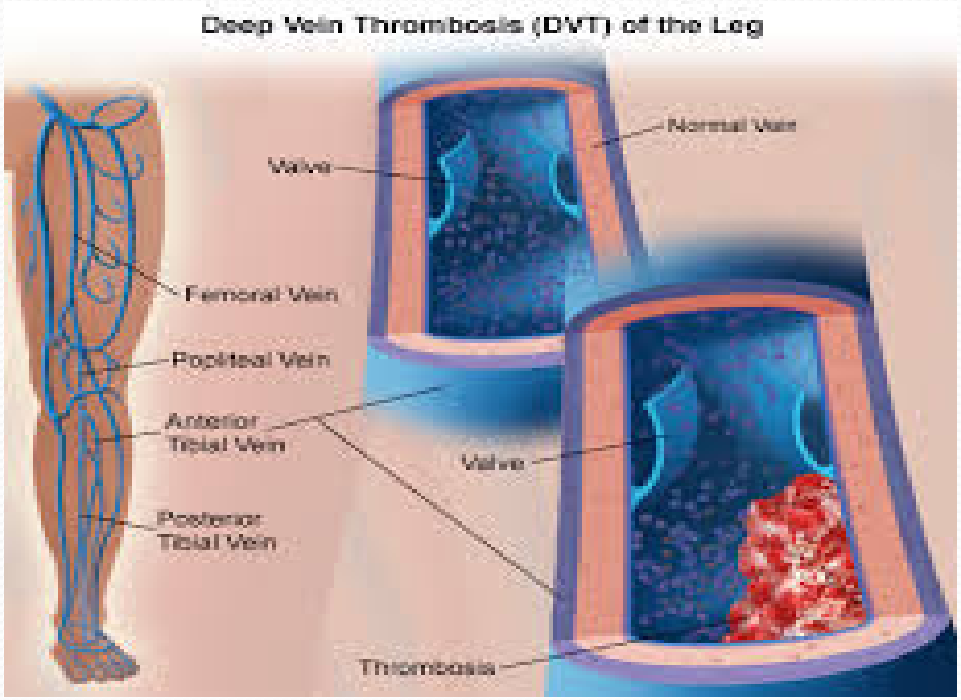
We will focus light on hematological changes especially coagulation which include:

- Increased plasma levels of coagulation factors
- Impaired fibrinolysis



Both will favor thrombus formation

Pathophysiology of Acute Deep Vein Thrombosis in Pregnancy

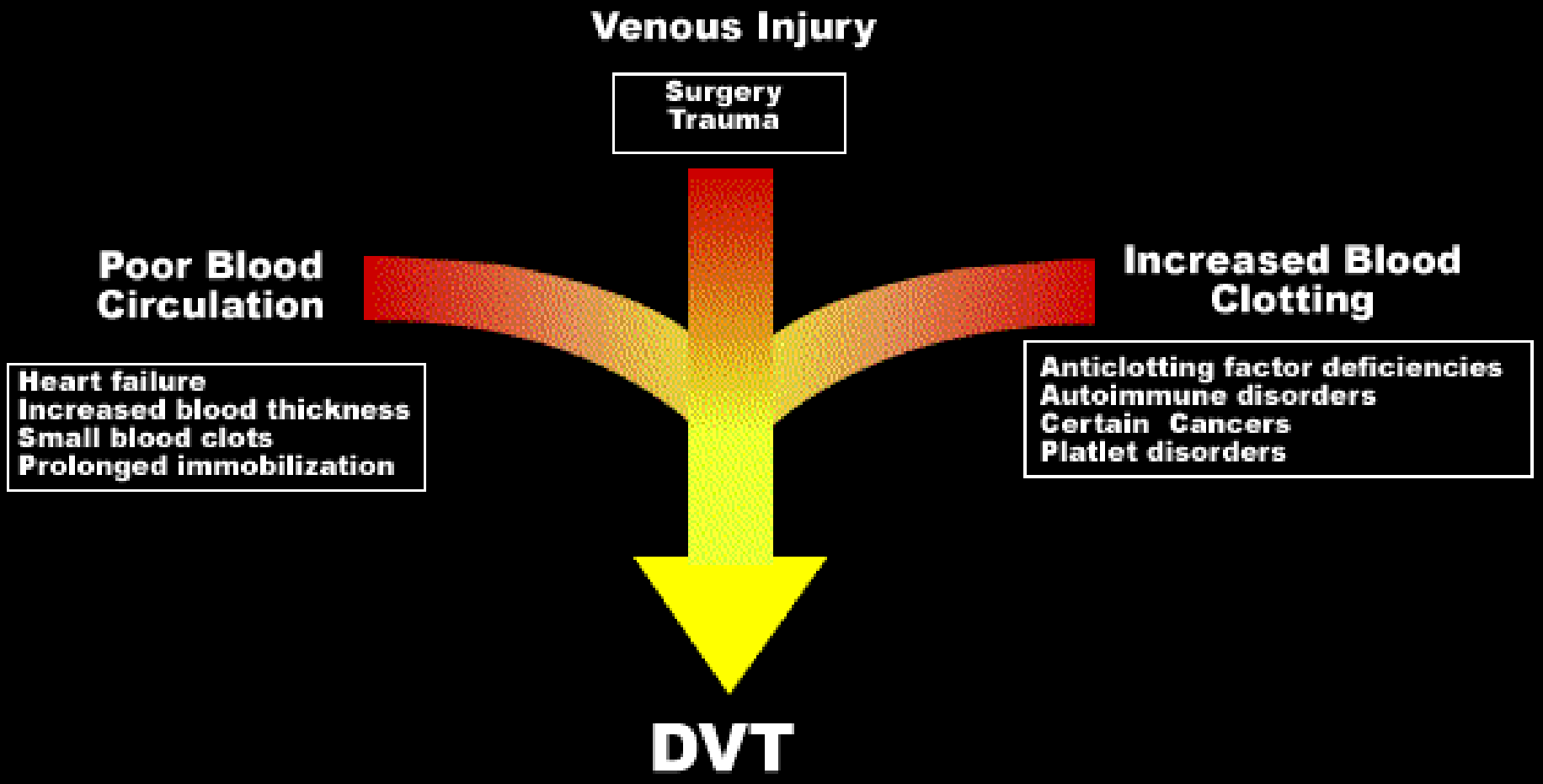


Mechanism of Acute DVT

Virchow Triad:

The three factors of Virchow's triad resulting in venous thrombosis : venous stasis, hypercoagulability , and changes in the endothelial blood vessel lining (such as physical damage or endothelial activation)

Risk Factors for DVT



Risk Factors of Acute DVT

Inherited Risk Factors: deficiency of protein C, protein S, and antithrombin III.
Acquired Risk Factors: include antiphospholipid syndrome, major surgery ,trauma and older age.
Specific to Pregnancy : Maternal age >35 years, multiparity, hyper-emesis and pre-eclampsia.

N.B:

The most important risk factor for venous thromboembolism (VTE) in pregnancy is a history of thrombosis.

About 15% to 25% of thromboembolic events in pregnancy are recurrent events.

Diagnosis of Acute DVT

- **Signs and Symptoms:** include pain or tenderness, swelling, warmth, redness or discoloration.
- **Investigations:** D-dimer test , imaging (Duplex ultrasound, contrast venography).