

## **Stroke in the Young**

**DEFINITIONS** — Stroke is classified into two major types:

- Brain ischemia due to thrombosis, embolism, or systemic hypoperfusion.
- Brain haemorrhage due to intracerebral haemorrhage or subarachnoid haemorrhage

A stroke is the acute neurological injury that occurs as a result of one of these pathologic processes. Approximately 80 percent of strokes are due to ischemic cerebral infarction and 20 percent to brain haemorrhage.

- Emboli
  - Paradoxical embolus (PFO / ASD)
  - Atrial fibrillation
  - Endocarditis
- Increased clotting tendency
  - Pregnancy
  - OCP
    - Associated with small increased risk of ischaemic stroke in some studies
    - Higher relative-risk if hypertensive smoker on the pill
  - Malignancy
- Bleeding tendency
  - Protein C deficiency
  - Protein S deficiency
  - Anti-thrombin III deficiency
  - Factor V Leiden deficiency

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graph LR; A[Protein C deficiency] --- B[ ]; B[Protein S deficiency] --- B; C[Anti-thrombin III deficiency] --- B; B --> D[Autosomal Dominant]; E[Factor V Leiden deficiency] --- F[ ]; F --> G[Autosomal Recessive];
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- Sagittal sinus thrombosis
- Trauma
- Infection
  - Encephalitis
  - Meningitis
- Illicit drugs
  - Amphetamine
  - Cocaine
- Migraine
- Fibromuscular dysplasia
- CNS vasculitis
  - Primary CNS
  - Secondary to systemic vasculitis
- SLE
  - Antibodies to clotting factors
  - Anti-phospholipid syndrome
  - CNS vasculitis
- Homocysteinuria