

## Description

Characterised by paroxysmal vasospasm and subsequent vasodilation of peripheral arterioles, usually in the hands and feet. Commonly a response to cold exposure, or stress. May be 1° (*Raynaud's disease*) or 2° (*Raynaud's syndrome*) to other disease. Mechanism not known.

## Epidemiology / Risk Factors

- Quite common. More so in colder climates. F>M.
- Smoking or heavy EtOH (but moderate red wine may be protective)
- Occupational exposure to vibrating tools, polyvinyl chloride, arsenic or lead
- Previous frostbite.

## Presentation

*Symptoms* - Classically 3 phases:

- "White" - Pallor of distal digits (thumb usually spared)
- "Blue" - Cyanosis with numbness & pain
- "Red" - Hyperaemic phase.

*Signs:* In Raynaud's disease usually nothing else to find. Look for DDx (loss of pulses, carpal tunnel syndrome, thoracic outlet syndrome, evidence of thromboembolism, Buerger's disease, reflex sympathetic dystrophy) or assoc in 2° Raynaud's syndrome (SLE, scleroderma, Ca).

## Investigations

- Consider FBC, UEC, LFT, TFT, ESR, autoantibodies
- Urine/serum protein electrophoresis, cold agglutinins and fibrinogen - ?hyperviscosity
- Chest x-ray (thoracic outlet views, ?cervical rib). USS if need to r/o thromboembolism

## Management

*General prevention of attacks*

- Avoid smoking, cold-exposure, vibrating hand tools
- Wear or carry gloves (ideally heated)

*Primary Raynaud's disease*

- Topical Agents: GTN paste, PG analogue gels and nitrate/ascorbate gels may help.
- Systemic Agents: CCB (e.g. nifedipine) mainstay. ACEI & SSRI may be useful. IV PG analogue or prostacyclin in severe cases.
- Sympathectomy rarely necessary.

*Management of secondary Raynaud's syndrome*

- Optimal management of the underlying cause
- Often refractory so IV PG analogues or prostacyclins more often used.
- Alpha blocker prazosin modestly effective.
- In acute sev cases LA ring blocks reduces pain and improves perfusion of the digit.
- Anticoagulation and antiplatelet therapy in advanced cases to reduce thrombotic Cx
- Many drugs under trial incl. endothelin receptor blockers, sildenafil, fluoxetine & ARBs
- Digital sympathectomy ± vascular reconstruction in severe cases.

## Complications

- Chronic ischaemia and ulceration. Severe cases may → digital infarction and gangrene

## Prognosis

- 1° Raynaud's tend to do well. 2° cases tend to be more problematic & ↑morbidity