

Raynauds

- An exaggerated response to cold and emotional stress.
- Causes skin colour to turn white (vasoconstriction)
- THEN
- Blue (cyanosis)
- THEN
- Red (rapid blood reflow)

- 5% population suffer.

Disclaimer:
Read the disclaimer at medimaps.co.uk/disclaimer

References:
1. cks.nice.org.uk
2. Nailfold dermatoscopy in general practice, RACGP, Nov 2015.
3. Pulse, Professor Ariane Herrick, Aug 2018.

Differentials:

- Chilblains (perniosis) — red, round, itchy swellings on fingers and toes during cold weather.
- Acrocyanosis — continuous blueness of the hands or feet aggravated by cold.
- Permanently white hands.
- Erythromelalgia — painful redness of the hands or feet caused by paroxysmal dilatation of blood vessels.
- Vascular embolism.
- Livedo reticularis — mottled, cyanotic discoloration of the skin that can be widespread or localized, and physiological or pathological in nature.
- Reflex sympathetic dystrophy (shoulder–hand syndrome) — diffuse persistent pain in an extremity, often associated with vasomotor changes and following an injury.

Symptoms

- Clearly demarcated pallor of the digit AND
- Then becomes blue and/or red

Investigations

- Smoking.
- Vibrating power tools.
- Digital ulcers.
- Nail fold capillary abnormalities.
- Pitting of finger tips.
- Asymmetry wrist pulses.
- Finger flexion deformities, sclerodactyly, calcinosis, ulceration.
- Synovitis.
- Telangiectasia, malar rash, skin tightening/thickening
- FBC.
- ESR.
- Anti-nuclear antibodies.
- TFT.
- Xray for cervical rib causing thoracic outlet obstruction.

- The best visibility of the nailfold capillaries is generally at the 4th and 5th fingers of the non-dominant hand.
- Look at the proximal nailfold (see right).
- Use MDAD system.
- Normal = looped, normal diameter, organised and ≥ 7 per mm.
- 1o raynaud's should show normal findings.
- If 2o raynaud's e.g. Systemic sclerosis = see different stages of findings in table to the right.

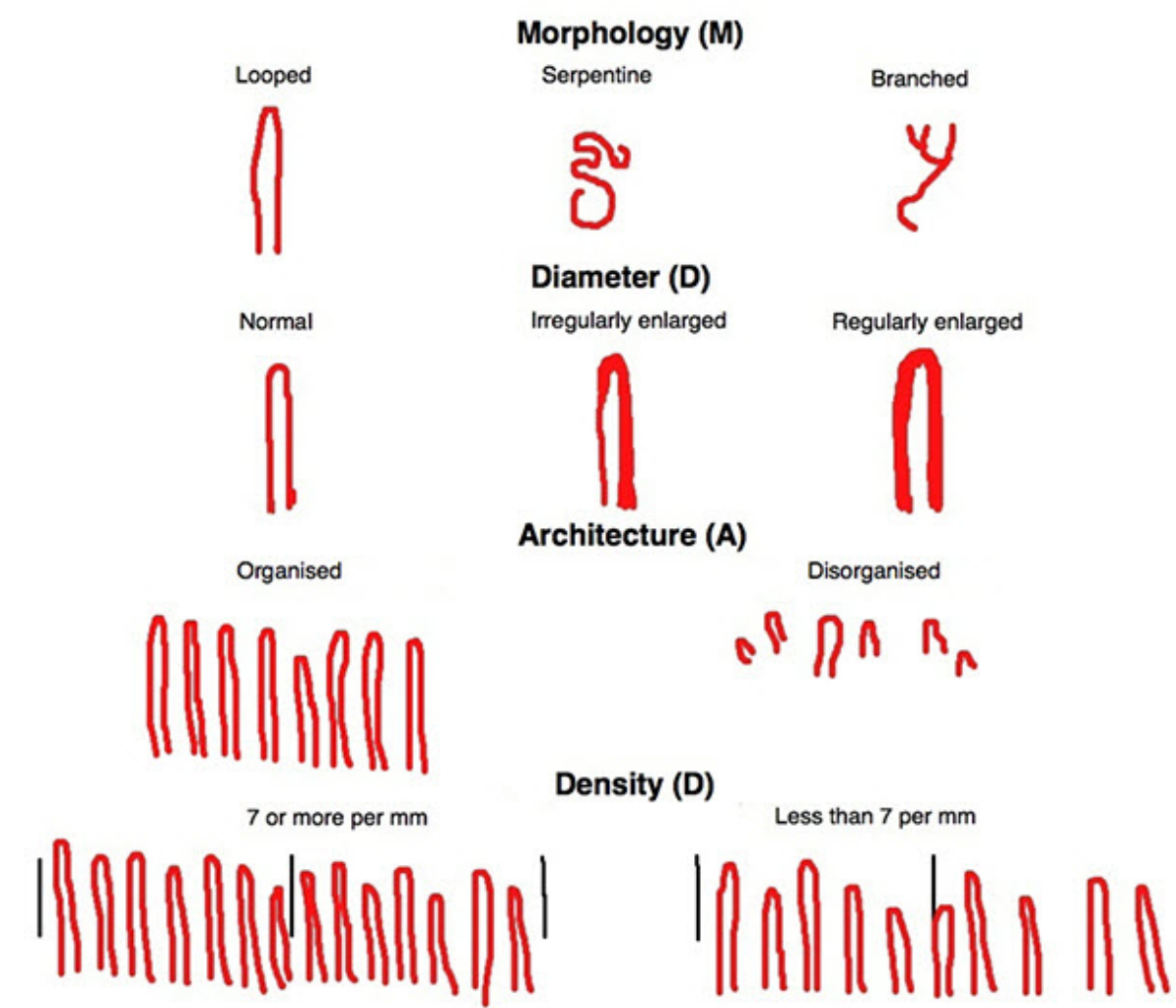


Table 1. Microangiography patterns in systemic sclerosis

	Early	Active	Late
Morphology (M)	Looped	Looped, branched	Looped, branched
Diameter (D)	Regularly or irregularly enlarged	Regularly enlarged	Regularly enlarged
Architecture (A)	Organised	Disorganised	Disorganised
Density (D)	Normal	Mild reduction	Severe reduction

Management

If < 12yr refer rheumatologist

rule out

2o raynaud's (10% pt's)

1o raynaud's (90% of pt)

Lifestyle advice

- Keep the whole body warm.
- Do not allow the hands and feet to get cold.
- Wear gloves and warm footwear in cold environments.
- Consider using hand and foot warming devices.
- Stop smoking.
- Minimize stress if this is a trigger.
- Exercise regularly.

Medication

1st line

- CCB.
- Can use just prophylactically i.e. in cold weather.
- e.g. Nifedipine M/R 20mg OD, titrated up to 60mg OD.
- M/R version better tolerated in terms of s/e.

if fails

- Alternative vasodilator or add in to CCB.
- e.g. Losartan.
- OR
- e.g. Doxazosin.

if fails

- Refer to 2o care.

suspect if any of following

- Onset at more than 30 years of age.
- Episodes that are intense, painful, or asymmetrical.
- Clinical features suggestive of a connective tissue disorder or other causes for digital vasospasm.
- Positive anti-nuclear antibody.
- Abnormal nail-fold capillaries.
- Digital ulcers, infection, gangrene, or severe ischaemia of one or more digits.

Connective tissue disorder

- Morning joint stiffness.
- Swollen joints.
- Rash.
- Photosensitivity.
- Hair loss.
- Oral or nasal ulcers.
- Dry eyes / mouth.
- Puffy hands.
- GORD.
- Oesophageal dysmotility.
- Severe muscle weakness.
- Breathlessness.
- Weight loss.
- FHx.

Systemic sclerosis
Mixed connective tissue disease
Dermatomyositis
Polymyositis
Systemic lupus erythematosus
Rheumatoid arthritis
Sjögren's syndrome
Vasculitis

- Refer to rheumatologist.

Medication

- Combined oral contraceptives
- Clonidine
- Beta-blockers
- Chemotherapy
- Ciclosporin
- Bromocriptine, cabergoline, pergolide, ergotamine, methysergide
- Interferon alpha and beta
- Amphetamines and cocaine

- Stop medication if safe to do so.

Environment

- Vibration finger
- Frostbite
- Exposure PVC (poly vinyl chloride)
- Hypothenar hammer syndrome

- Refer to occupational medicine specialist

Haematological

- Polycythaemia
- Monoclonal gammopathies
- Paraproteinaemia
- Leukaemia
- Cryoglobulinaemia
- Cold agglutinin disease
- Protein C, protein S, or antithrombin III deficiency
- Factor V Leiden
- Polycythaemia rubra vera
- Lymphoma
- Thrombocytosis
- Mycoplasma infections (with cold agglutinins)
- Hepatitis B and C

- Refer to haematologist.

Occlusive arterial disease

- External neurovascular compression
- Arteriosclerosis
- Thoracic outlet syndrome
- Thrombosis
- Embolisation
- Buerger's disease
- Thromboangiitis obliterans

Miscellaneous

- Carpal tunnel syndrome
- Acromegaly
- Myxedema
- Pheochromocytoma
- Diabetes
- Lung adenocarcinoma