Calcific tendinopathy is a common, and often debilitating, condition that predominantly affects women between the ages of 40-60 years old. Calcium hydroxyapatite crystals are deposited into viable, non-necrotic tendons, most commonly within the rotator cuff or hip tendons. The natural history is split into four distinct phases, each with different symptomatology and radiographic features. Although often a self-limiting disease, at times, a radiologist may be called upon to intervene to help treat the condition.

Diagrammatic representation of the pathophysiological stages of calcific tendinopathy

**Calcific Tendinopathy - A Pictorial Review**

Catriona Reid, Naji Al-Khudairi, Kiruthika Chandrasekaran, Fiona Witham

**Shoulder anatomy: location of tendons**

- **Formative and calcific phases:**
  - Well-defined
  - Homogeneous contour
  - Less likely to be symptomatic

- **Resorptive phase:**
  - Fluffy, hazy, ill-defined edges. Acute pain.

- **Reparative phase:**
  - Will show resolution of the calcium deposits

**Example case 1**

45 year old male patient presented with impingement pain of the right shoulder

AP right shoulder demonstrates well-defined calcific density within the supraspinatus tendon, likely ‘formative or calcific phase’

An ultrasound showed a well-defined hyperechoic lesion with posterior acoustic shadowing within the supraspinatus tendon.

Barbotage was performed which involves mechanical disruption of the deposit by repeated injection and aspiration with saline.

A radiograph 3 months later demonstrates residual ‘fluffy’ opacification, in keeping with the resorptive phase, heading towards resolution.