57 yo M with right shoulder pain

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Lipoma arborescens

• Arborescens comes from Latin for “tree-like” appearance.
• First described by Albert Hoffa in 1904.
• Other terms that have been used in the literature include:
  • Diffuse lipoma of the joint
  • Diffuse synovial lipoma
  • Diffuse articular lipomatosi
  • Fatty infiltration of the synovial membrane
  • Villous lipomatous proliferation of the synovial membrane.
Lipoma arborescens

• Benign subsynovial villous proliferation of mature fat cells.
• Exact etiology not defined, but thought to be a nonspecific reactive response to chronic mechanical/traumatic or inflammatory stimuli, NOT a true neoplasm.
• MR features include frond-like synovial proliferative masses that follow fat signal on all sequences, joint effusion, and absence of susceptibility artifact.
• “Frequently described as rare, but imaging diagnosis was very difficult prior to the advent of MRI.”

Clinical presentation

• Gradual onset painless swelling, sometimes over several years.
• Progressive pain and intermittent joint effusions.
• Usually monoarticular (95%), most commonly affects the knee.
  • Cases reported in shoulder, hip, ankle, elbow, wrist.
• Idiopathic primary type occurs in younger patients with normal laboratory values (ESR, RF) and negative for crystals/cells/infection.
• Secondary type typically occurs in the 5th-7th decades of life (but also occurs in young patients with chronic arthritis) with underlying chronic irritation, such as degenerative disease, trauma, meniscal injury or synovitis.
• Treated with synovectomy but may recur.
Photomicrographs of extra-articular lipoma arborescens show several papillaroid structures (arrows) with synovial lining cells (arrowheads), which contain a stroma that exhibits increased mature adipose tissue (stars) [Haematoxylin & eosin (a) × 2; (b) × 4].

References


• http://radsourc.e.us/lipoma-arborescens/