Osteoid osteoma of the shoulder and elbow: from diagnosis to minimally invasive removal.

Abstract:
Musculoskeletal tumours are rare in the daily practice of an orthopaedic surgeon or even a shoulder and elbow specialist. Patient complaints are often related to secondary changes to the underlying disease making the correct diagnosis challenging. The goal of this study is to identify key symptoms and findings which should give rise to suspicion of an osteoid osteoma. This retrospective study analyses the diagnostic pathway, surgical treatment and clinical outcome of six patients who underwent resection of an osteoid osteoma of the shoulder or elbow joint. Average follow-up was 24 months (range 16-36 months). The neoplasm was often associated with synovitis mimicking a frozen joint causing marked delay in tumour identification. Misdiagnosis led to surgery without addressing the tumour in two cases, making further surgical intervention necessary. Once the tumour was identified and removed the pain resolved rapidly. In cases of chronic shoulder or elbow pain without an adequate clinical history an underlying cause including rarities such as an osteoid osteoma or other musculoskeletal tumours should be taken into consideration. Particularly in young patients, a magnetic resonance imaging (MRI)-proven hot spot of unknown origin should prompt a computed tomography examination to further clarify the source of pain and stiffness. IV, case series.