Erosive OA: The wolf in a sheep’s clothing.

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Learning objectives
- To recognize different types of arthritis.
- To understand the importance of closer follow up and treatment limitations in erosive osteoarthritis.

Introduction
Erosive osteoarthritis is a fairly uncommon form of osteoarthritis in the general population. It is usually seen in the proximal and distal interphalangeal joints of patients; and while it is seen in only 2-3% of the general population, its prevalence can be almost up to 10% in patients with symptomatic arthritis. Therefore, it goes without saying that its effects on the quality of life for these patients can be debilitating.

Erosive osteoarthritis can result in severe deformities of the small hand joints which include subluxation of the joints, deviation of joint lines and eventually joint instability, resulting in pain and decreased function.

However, spontaneous tendon rupture from severe erosive osteoarthritis is rarely seen.

Case Presentation
This is a case of an 88 year old Caucasian female with a past medical history of HTN, Osteopenia and pre-existing bilateral hand joint deformities from erosive osteoarthritis who comes in for spontaneous right fourth finger drop.

X ray done the same day revealed no fracture. MRI of the hand was done that showed an acute disruption of the extensor mechanism of the extensor digitorum tendon of the ring finger at the level of the proximal interphalangeal joint with retraction of tendon to the level mid fourth metacarpal in the setting of chronic erosive osteoarthritis.

Patient was evaluated by orthopedics surgery and subsequently underwent a tendon transfer and a tenosynovectomy with recovery of baseline finger function eventually. She was offered an inflammatory arthritis workup and a referral to rheumatology specialists but patient refused.

Discussion
Erosive Osteoarthritis on the other hand is commonly diagnosed with the characteristic “gull wing” and “saw-tooth” deformities. However, there is a lack of definitive diagnostic criteria. A systematic review in 2018 showed variability in the extent of radiographic findings when it came to diagnosis of erosive osteoarthritis in articles published in journals.

Differential diagnoses always include rheumatoid and psoriatic arthritis and it may be prudent to try to rule out these disease processes in younger patients who present with erosive changes in their bones.

Moreover, there is no standard practice for treating erosive osteoarthritis. Treatment options are limited to anti-inflammatory therapies which, in the long term, have undesirable side effects, especially in the elderly.

There have been small scale trials that have showed medications such as hydroxychloroquine may be beneficial in erosive arthritis but there have not been any significant randomized control trials to evaluate this.

Conclusions
There is limited data in the literature in regards to both diagnosis and treatment of this seemingly common form of arthritis. Clear diagnostic criteria needs to be defined in order to avoid confusion between other forms of inflammatory arthritis. More research and trials need to be performed to delineate better treatment options.

References