

Botulinum Toxin Injections for Jaccoud's Arthropathy: A Case Report



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Introduction

Jaccoud's arthropathy (JA) is a rare non-erosive, deforming arthritis that affects 10-35% of patients with systemic lupus erythematosus [1]. While typically associated with SLE, JA has been reported to occur with connective tissue disorders such as systemic sclerosis, Sjogren's syndrome, vasculitis, and rare cases reported in individuals without these conditions [2]. JA classically affects the hands, and patients commonly present with ulnar deviation, swan-neck and boutonniere deformities, non-erosive subluxations, and Z-deformity of the thumb [1,3]. JA is typically characterized by visualizing these deformities and subluxations on plain X-ray, and conservative treatment options include anti-inflammatory medications, corticosteroids, and methotrexate [4]. There have been minimal studies addressing the management of JA, and no clear guidelines exist. There are some case studies addressing surgical intervention for JA; however, there is no consensus on the best approach, appropriate candidates, or indications for when surgical intervention is needed [5]. Thus, we present a novel case of botulinum toxin injections for pain relief and functional improvement in a patient with JA.

DISCUSSION

This case report contributes to the literature for the management of JA, as current treatment guidelines are unclear and studies addressing this condition are urgently needed. Additionally, our case report is unique in demonstrating that botulinum toxin injections could provide pain relief in patients with JA, resulting in analgesic relief and functional improvement. To our knowledge, this is the first case of utilizing botulinum toxin injections for JA. Further studies are needed to assess the efficacy of botulinum toxin utilization for JA and establish clear guidelines for when to initiate treatment.

Clinical Presentation and Associated Imaging



Figure 1-4: Ulnar deviation of bilateral metacarpals. Boutonniere deformity of the right first digit. Left digits 3-5 boutonniere deformity. Bilateral digit flexion contractures with left digit contraction greater than the right and bilateral Z-deformity of the thumb.

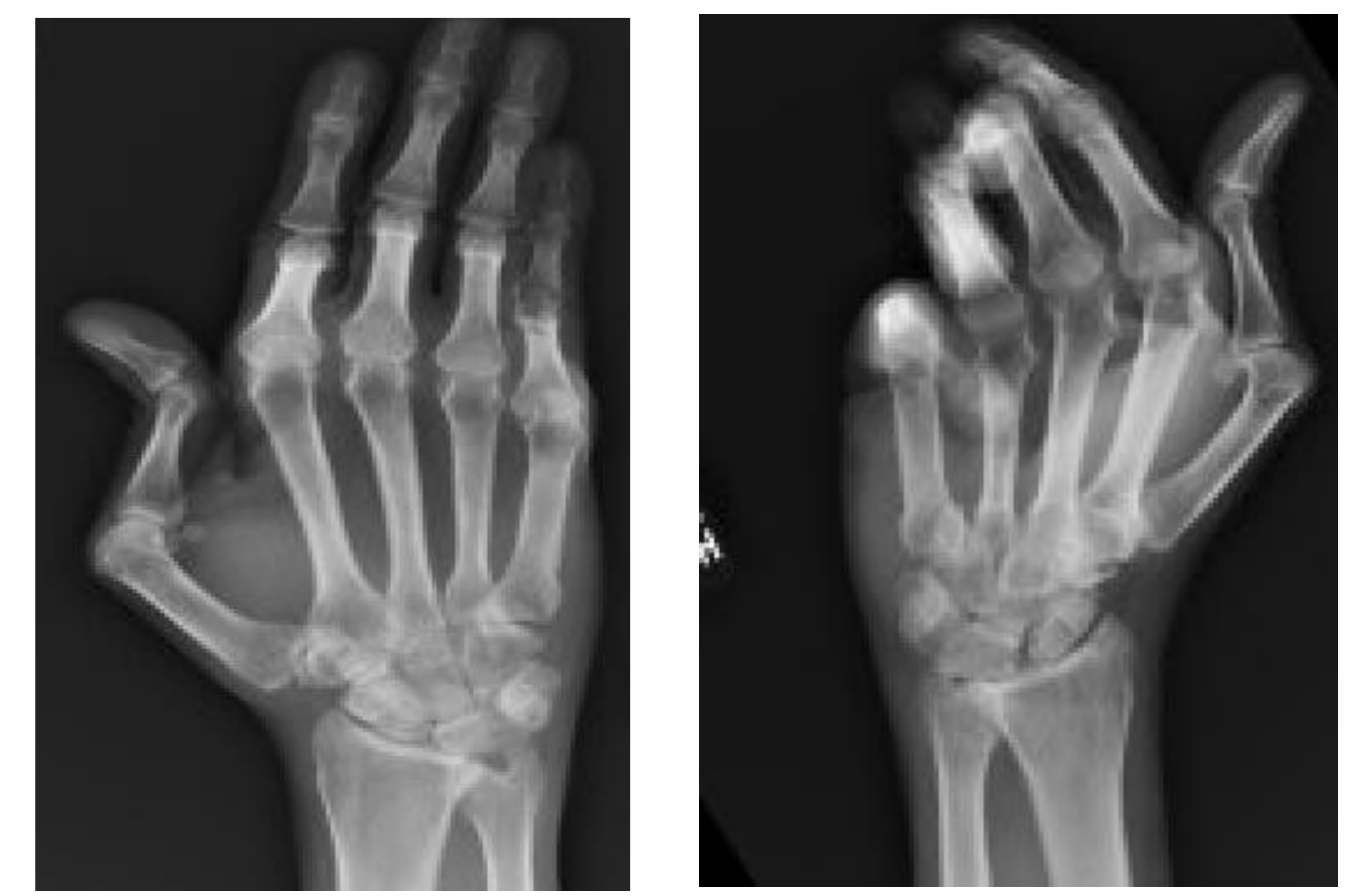


Figure 5-6: Osteoarthritis with significant flexion deformities of the metacarpal phalangeal joints of the second through fifth digits and the first metacarpal phalangeal joints.

Case Presentation

This case report presents a 49-year-old male with a past medical history of chronic pain, vocal cord paralysis, and JA. The patient had been following up with pain management, orthopedic surgery, and rheumatology for the previous seven years and noted that his symptoms had only worsened. The patient had a previous posterior interosseous nerve (PIN) release due to concern of PIN palsy and completed hand therapy without any relief. The patient's current medication regimen included pregabalin, baclofen, and hydroxychloroquine. The patient was referred to the pain management clinic by orthopedic surgery with recommendations for a trial of botulinum toxin injections. The patient presented with ulnar deviation of the metacarpals, swan-neck deformities of the 2nd digit, boutonniere deformities of the 3rd-5th digits, and a Z-deformity of the thumb. The patient received botulinum toxin injections in the bilateral flexor digitorum superficialis (FDS), flexor digitorum profundus (FDP), and the lumbricals. The patient followed up in the pain management clinic three months later and reported improvement in pain of the left hand, along with some improvements in range of motion of the digits; however, the patient did note reduced strength in left-hand grip.

References

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