Volume : 5 | Issue : 12 | December-2016 • ISSN No 2277 - 8179 | IF : 3.508 | IC Value : 78.46

Original Research Paper

sarcoidosis of the index finger

orthopaedics

KEYWORDS: swelling; finger; excision; sarcoidosis; Phalanx

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ABSTRACT

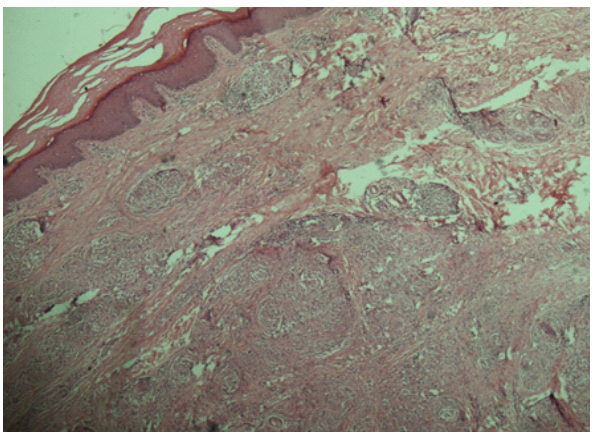
Sarcoidosis is a rare idiopathic multisystem disease that is characterized by the deposition of noncaseating epithelioid granulomata. a 35-year-old man reported with a swelling at the middle of the right index finger with no evidence of systemic involvement. X-ray of the finger revealed lytic lesions. Osseous sarcoidosis of the finger is uncommon and, in the absence of significant systemic disease, is rarely the primary presenting feature. Early diagnosis and treatment of such undetermined bone pathology, via referral to a regional musculoskeletal tumor service, can prevent significant future complications.

Introduction - Sarcoidosis is a systemic granulomatous disease that primarily affects the lung and other organs. Patients with dactylitis should be screened for abnormalities of the skin, eyes and lungs. Even in patients with normal-range ACE sarcoidosis could be confirmed by tissue biopsy. Treatment with methotrexate and steroids can relieve symptoms and stabilize the disease. In refractory cases leflunomide, azathioprine, hydroxychloroquine or antibodies against TNF-alpha can be additionally administered. [1] Here, they described a unique case of osseous sarcoidosis with pulmonary aspergillosis, showing a rapid improvement of the osseous symptoms just after the administration of the antifungal agent, itraconazole. Itraconazole is likely to become a candidate among new therapeutic agents for osseous sarcoidosis. [2]

Case Report – a 35 year old patient came with complaints of swelling in both index fingers from past 6 months and haematuria from past 9 days .Patient was apparently alright 6 months back when he developed complains of swelling in left hand followed by involvement of right index finger gradually progressive associated with pain severe unable to bend figure .difficulty in carrying out day to day work .Pain was relieved on medication .He also gives h/o haematuria from 9 days .no history of burning micturation . Past history: No history of TB/asthma/jaundice Local examination- there were three solitary swellings were present over the right hand in middle index phalanx. It was firm in consistency, 2.5x1.3x1.0 cm, and right hand swelling was mobile(figure-1). Skin was pinchable, movements of the finger was restricted upto 10 degree. Sensations over the finger were normal. Patient refused to get any other investigations due cost factor. An elliptical incision was given over the swelling and removed intact. Skin was closed primarily. On histopathology of multiple sections examined from two soft tissue bits show keratinized stratified squamous epithelium. The underlying tissue shows numerous confluent non-caseating epitheloid cell granuloma with paucity of lymphocytes and numerous giant cells. Surrounding stroma is fibro-collagenous(figure-2 and 3). Patient was put on steroids for 6 months. In follow-up of 8 months patient remain asymptomatic and without any recurrence.

Discussion- Sarcoidosis is a rare idiopathic multisystem disease that is characterized by the deposition of noncaseating epithelioid granulomata [3]. The most frequently affected sites are the lungs and lymph nodes, but the liver, heart, skin, eyes, and musculoskeletal, endocrine, and nervous systems may also be involved [3]. Rizzato suggested that more than 30% of patients with sarcoidosis have extrapulmonary manifestations at initial presentation. [4] Osseous sarcoidosis is relatively uncommon, and treatment with corticosteroids is not always effective. Moreover, patients with an advanced stage of pulmonary sarcoidosis are sometimes infected with aspergillus in the cavities of the pulmonary lesions, and long-term use of corticosteroids should be prohibited to prevent the development of fatal invasive pulmonary aspergillosis. [2] Cutaneous lesions without bone involvement affect approximately 25% of sarcoid patients. [5]

The middle and distal phalanges are more frequently involved than the proximal phalanges or metacarpals [6]. The characteristic radiographic features are replacement of the normal trabeculae by a honeycomb or latticework pattern. Lytic lesions may cause endosteal scalloping, as in our case, and may be focal, central, or eccentric, or involve the whole bone [7]. The treatment of extrapulmonary sarcoidosis remains controversial. Oral corticosteroids are recommended for osseous sarcoidosis, although they are not curative, and there are conflicting opinions on their long-term efficacy. [8] Open curettage for symptomatic lesions appears to be the most commonly employed primary surgical treatment for osseous sarcoidosis affecting the hand. Generally, good results have been seen within the limited published data [9]. One paper reported the use of repeated curettage with excision and iliac bone grafting for recurrence post primary surgical treatment. Where bony disease is identified, staging investigations must include a radionuclide bone scan to confirm the extent of skeletal involvement. Treatment of systemic disease should parallel local bony surgery or injection to provide the most comprehensive chance of cure. [10]



Legends-

Figure- 1 - swelling located on right index finger

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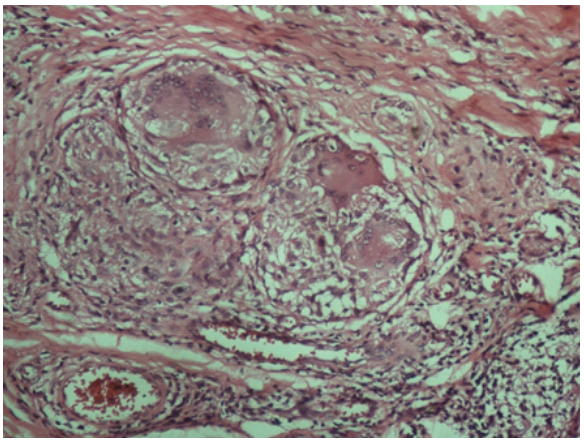

Figure-2 - Photomicrograph showing well formed granuloma and an asteroid body with in a giant cell (HNEX- 200)

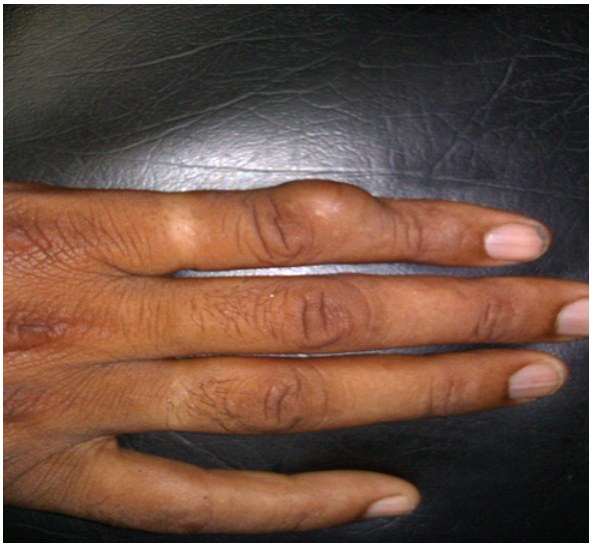

Figure-3- Photomicrograph showing lining of stratified squamous epithelium and confluent epithelioid cell granulomas (HNEX-40

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