

**ATYPICAL CHRONIC MULTIPLE JOINT SWELLING- A CASE REPORT**Santhoshkumar M. N<sup>1</sup><sup>1</sup>Associate Professor, Department of Orthopaedics, Government Medical College, Kottayam, Kerala.**HOW TO CITE THIS ARTICLE:** Santhoshkumar MN. Atypical chronic multiple joint swelling- a case report. J. Evid. Based Med. Healthc. 2018; 5(43), 3052-3054. DOI: 10.18410/jebmh/2018/623**CLINICAL PRESENTATION**

A 64-year old male patient had recurrent episodes of pain and swelling, predominantly involving bilateral knees with right knee more involved than left over a period of about 4-5 years. Occasionally, he had multiple joint involvement including small joints of hands. There was no characteristic morning stiffness. Clinically, there was effusion in both knees with right knee more involved than left. The yearly recurrence or exacerbations were 3-4 on an average. The aspirations from the joint had an appearance similar to septic arthritis with turbid appearance and on most occasions the quantity was over 60-80 ml in each leg. The more symptomatic side at the time of presentation was often right which alone was surgically interfered with.

Apart from non-specific complaints, patient had no significant symptoms to suggest urinary tract infection or GIT infection to consider the possibility of reactive arthritis. However, a turbid knee aspirate along with high total leucocyte count (TLC) with more than 90% PMN and elevated ESR with a negative culture report made a conclusion of reactive arthritis. The chronicity and multiple early recurrence and non-deterioration to the expected level even in absence of antibiotic therapy ruled out a septic arthritic possibility at the same time favouring more chance of reactive arthritis. Moreover, picture of chronicity is not in favour of septic arthritis.

**DIFFERENTIAL DIAGNOSIS**

(1) Reactive Arthritis (2) Rheumatoid Arthritis (3) Lyme's Arthritis. (4) Lipoma Arborescence.

**CLINICAL DIAGNOSIS**

The final clinical diagnosis entertained was Lipoma arborescence.

**DISCUSSION AND MANAGEMENT**

Pain and swelling of knee joint is very common in elderly with female preponderance in incidence and prevalence. Majority are cases of osteoarthritis, many a time made worse with obesity. Inflammatory joint features are negligible in osteoarthritis.<sup>1,2</sup> Hence the clinical presence of inflammatory

features suggests the possibility of synovitis or arthritis with inflammatory or infective components. The spectrum may include Pigmented Villo-Nodular Synovitis (PVNS), rheumatoid arthritis, tuberculous arthritis, gouty arthritis, CPPD, Lyme's arthritis, SLE, psoriatic arthritis, enteropathic arthritis and reactive arthritis.<sup>3,4</sup>

While relying on serology may be the best option in some cases, others may have to rely on bacteriological study.<sup>5,6</sup> Microscopy including polarized microscopy is warranted in suspected gout and CPPD. Though x-ray evaluation may aid in corroborative diagnosis, synovial biopsy becomes mandatory in a group of patients.<sup>3</sup> The intraoperative findings of hypertrophy and pigmentation of synovium can have a corroborative value in PVNS, villous growth along with button like cartilaginous out growths characterizes synovial chondromatosis whereas the pannus appearance may be characteristic in rheumatoid arthritis.

Haematological and serological evaluations like CBC ESR, CRP, Rheumatoid factor anti CCP antibody were done in this patient. Rheumatoid factor was however positive in this patient along with elevated ESR and CRP. In view of the high titre of rheumatoid factor and patient showing poly arthritis apart from the major joint involvement, patient was started on Disease Modifying Anti Rheumatoid Drugs (DMARD) initially, which responded adequately with long periods of remission. The ESR was 75 mm, TC 8750, P 78, L 22. CRP also was elevated. Culture and sensitivity of the synovial fluid did not yield bacterial growth. Moreover, following exacerbations, with acute flare, the response appeared to be inadequate over a period of time. Further, as the knee swelling appeared partly doughy or boggy in certain areas apart from the presence of effusion and incomplete response to DMARD as time passed by.

Repeat aspiration, synovial fluid study, gram stain, AFB staining, culture and sensitivity including AFB culture were done which proved to be negative for any organism. In view of the extensive soft tissue thickening which was suggestive of massive synovial hypertrophy standard surgical arthroscopy was planned with an aim for near total synovectomy.

The intraoperative finding in the knee was peculiar. There was an admixture of clumps of aggregates of white thick flakes as well as thick gelatinous/fatty globular appearing partly friable mass of soft tissue. The synovium was pale white in some areas and thickened all around. There was no appreciable pigmentation or villous growth.<sup>1</sup> The thick turbid opalescent synovial fluid which appeared as in the case of septic arthritis flowed out of the joint at the onset of arthroscopy incision. This fluid was collected for synovial fluid study. The collected tissue was sent for histopathological examination. The result of

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histopathological examination was consistent with chronic synovitis. The biopsy description of the whitish soft tissue was "Fibrocartilaginous tissue with inflammatory infiltrate composed of neutrophils, lymphocytes and plasma cells, areas of haemorrhage and congested vessels seen". The biopsy description for the intact appearing synovium was "Fibrocartilaginous tissue with inflammatory infiltrate composed of neutrophils, lymphocytes, plasma cells and histiocytes and congested vessels seen".

The description of chronic synovitis did not fit into any of the usual causes of synovitis like PVNS, CPPD, Rheumatoid arthritis, Lyme's arthritis, tuberculous arthritis or any other specific pattern. The flakes of white tissue approximately 1.5 x 0.25 x 0.25 size appearing in clumps/clusters also was not described elsewhere. The pale white thick porridge like friable synovium is an unfamiliar finding. It may however be interpreted as Lipoma arborescens.

The x-ray of the knee joint showed joint narrowing and areas of cyst formation and periarticular sclerosis suggestive of findings of secondary osteoarthritis and not favouring tuberculous or rheumatoid bone picture.



**Figure 1. X-ray Showing Knee Joints**



**Figure 2. Clinical Photograph Showing Right Knee Swelling**



**Figure 3. Photograph Showing Aspiration of Thick Turbid Synovial Fluid**



**Figure 4. Synovial Proliferation Appearing During Arthrotomy**



**Figure 5. Synovial Proliferation Appearing During Arthrotomy Magnified View**



**Figure 6. Synovial Tissue Portion Collected for Histopathology**

Thus, the final conclusion of the diagnosis of Lipoma arborescens appeared to be the relevant one. The characteristic macroscopic photograph of the collected tissue appears to be very peculiar and clearer than the photographs shown in previous case reports in the literature. It can also be mentioned that in fact it is these photographs that turns out to be the most diagnostic feature in this case, sharing of which appeared to be the genuine purpose behind the publication of this case report.

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