

Idiopathic Rice Bodies In Painless Knee Swelling: A Case Report

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INTRODUCTION:

Rice bodies are materials with an amorphous nucleus and a fibrin layer that are commonly found in rheumatoid arthritis, tuberculous arthritis and bursitis. They are rarely found in non-specific synovitis. We describe a unique case of presence of rice bodies in the knee joint without evidence of inflammatory arthritis or infection.

METHODS:

A healthy 56-year-old male presented with painless left knee swelling for one month. He has no history of arthritis or trauma. He has no episodes of fever. He was able to walk without assisting device. Clinically, there was knee effusion and localized swelling over medial knee about 3x2cm. There was no joint line tenderness and the knee was not warm. Range of motion was limited due to effusion. White blood cell count was $9.0 \times 10^9/L$, erythrocyte sediment rate was 26 mm/hr and rheumatoid factor was negative. Knee joint plain radiograph revealed normal findings. Synovial fluid aspirate was slight turbid however, yield negative result for infection or tuberculosis. Arthrotomy washout was done subsequently due to recurrent effusion and found a collection of rice bodies inside the hamstring tendon sheath in other separate incision on the medial knee swelling. Histology showed whitish tissue with fibrin with no granuloma and malignancy cells seen. The results of bacterial and acid-fast bacilli (AFB) culture studies from the synovium and synovial fluid were negative, and real-time polymerase chain reaction (PCR) for tuberculous mycobacterium (MTB) and non-tuberculous mycobacterium (NTM) of synovium were normal.



DISCUSSIONS:

The incidence of idiopathic rice bodies formation is rare and only reported in few literatures. Rice bodies are usually found in the synovial space of rheumatoid or seronegative spondyloarthritis patients and around inflamed bursa and tendon sheaths. As idiopathic rice bodies formation is rare, one should rule out other pathology by checking for immunologic markers including anti-citrullinated protein antibody (ACPA), anti-nuclear antibodies (ANA) and HLA B-27 as suggested by other literature. Idiopathic rice bodies can simply be managed with tenosynovectomy.

CONCLUSION:

Idiopathic rice bodies without inflammatory cause are rare and is a diagnosis of exclusion after ruling out other etiology such as inflammatory and infection.

REFERENCES:

1. Whan et al., Journal of Rheumatic Diseases, October 2016, Vol. 23, No. 5.
2. Santosh et al., BMJ Case Report, 21 March 2014.