

Knee Septic Arthritis: A Diagnostic Dilemma

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INTRODUCTION:

Septic arthritis is an orthopaedic emergency. Delay the treatment would result in morbidity and mortality hence it is vital to diagnose appropriately ⁽¹⁾. Diagnostic aspiration remains the gold standard technique in diagnosing septic knee followed by synovial fluid analysis ⁽²⁾. It is found from our survey through phone calls that 60% of tertiary government hospital provides the synovial fluid analysis and remaining were diagnosed by quantity of pus cells. Apart from clinical correlation, synovial fluid analysis is mandatory to be done, especially cases with turbid fluid to exclude inflammatory knee. This is to avoid unnecessary knee arthrotomy washout.

METHODOLOGY:

A retrospective descriptive study is done in our centre to evaluate correlation between aspirated knee with pus cells and the tissue culture grown postoperatively. Data collection was done through online case documentation. 61 patients underwent isolated knee arthrotomy washout from the year 2010-2017. Gross appearance of pus aspirated knees was excluded in this study. Antibiotics was only started after surgery was done.

RESULTS:

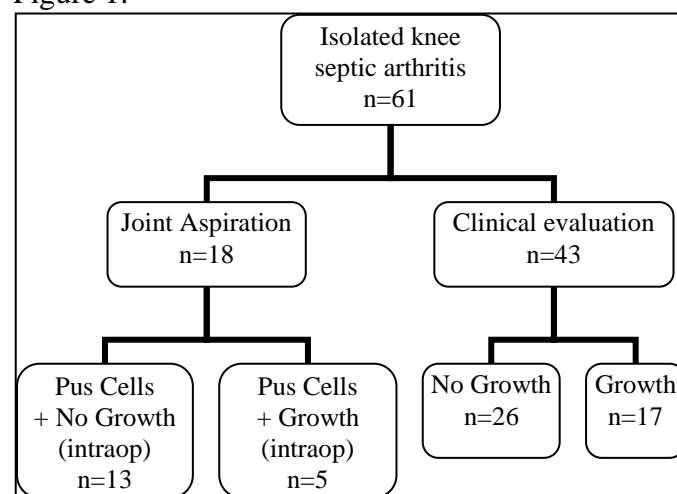
18 patient was diagnosed through diagnostic aspiration and remaining knees was diagnosed upon clinical examination. The microscopic results of the 18 patients, varies from mild, moderate and numerous pus cells, and all were planned for arthrotomy knee washout. 5 out of 18 patients had culture grown, on the other arm, 17 out of 43 patients had culture grown.

DISCUSSIONS:

Analysing synovial fluid is important to differentiate septic knee from other pathologies having similar clinical presentations. However, there's still a lot of hospitals in our country do not provide this facility, maybe due to lack of

manpower, or possible that it's not being requested therefore it is not done. The required synovial fluid analysis to diagnose a septic knee were the appearance of the synovial fluid taken, volume, viscosity, number of total white cell with the percentage of polymorphonuclear cell and it is confirmed with the positive culture.

Figure 1:



CONCLUSION:

Synovial fluid analysis must be done for suspicious aspirated knees to exclude inflammatory knees and to avoid unnecessary surgical intervention. Quantity of pus cells cannot be a determinant to decide for surgical intervention ⁽²⁾.

REFERENCES:

1. Mark. ES et al. Acute Septic Arthritis Clin. Microbiol. Rev. October 2002 vol.15 no. 4; 527-544
2. Mathews CJ et al. Management of Septic Arthritis: A systematic Review. Ann Rheum Dis. 2007 Apr;66 (4):440-5. Epub 2007 Jan 12