



Mediscope



The Journal of GMC

CASE REPORTdoi: <http://dx.doi.org/10.3329/mediscope.v6i1.38942>**Septic arthritis is a mimicker of rheumatic fever**KZ Hossain¹✉, MN Islam²**Abstract**

Septic arthritis is an uncommon form of arthritis in children. A five years old boy presented with pain and swelling of both knee joints for 7 days. His joints swellings were disproportionate to pain. He had no history of trauma to the joints. On examination, there was soft tissue swelling of both knee joints. Investigation showed features of acute inflammation. Plain radiograph showed soft tissue swelling. Ultrasonography showed fluid accumulation in joints space. After 7 days of antistaphylococcal therapy, the child improved significantly. Physicians treating the children need to be aware of taking proper history and doing physical examination and checking laboratory findings of the children with septic arthritis for appropriate case management. **Key words:** septic arthritis, rheumatic fever, children.

*Received: 24 August 2018**Accepted: 24 September 2018***Introduction**

Septic arthritis is a rare form of arthritis. The condition presents like rheumatic fever of children. In children this lesions involve the peripheral skeleton which are more painful than in adults.¹ Septic arthritis may associate with osteomyelitis in children.^{2,3} Here large joints of lower limbs are most frequently involved. Septic arthritis in children is important because of their potential to cause permanent disability. Septic arthritis is most common in young children.⁴ In which 50% of all cases occur by two year of age and 75% of all cases occur by five year of age. We identified a child case of septic arthritis mimicking rheumatic arthritis.

Case report

A five years old boy hailing from Jhenaidah was admitted in Addin- Sakina Medical College Hospital, Jessore having pain and swelling of both knee joints and fever for 7 days. Swelling of the joints was disproportionately greater than pain. Fever was of

high grade. He has no history of trauma. On examination, there was mild anemia and inguinal lymph adenopathy. The chest examination revealed no feature of carditis.

Regarding musculoskeletal (MSK) findings, there was swelling of both knee joints with grade-II tenderness. There was soft tissue swelling of both knee joints with significant movement restriction. Investigation showed total count of WBC 20000 per cmm, Hb 10.5 gm/dl, CRP 70 mg/L, ASO titer 200 u/L, ESR 100 mm blood culture showed staphylococcus aureus sensitive to flucloxacillin and cefotaxime. Synovial fluid analysis showed increased cells and protein and decreased glucose.

Plain radiograph showed soft tissue swelling. Ultrasonography showed fluid accumulation in joints space. After one week of antistaphylococcal therapy, both fever and MSK condition improved significantly and the ESR returned to normal, we ultimately diagnosed

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the patient as septic arthritis and continued antistaphylococcal therapy for 3 weeks.

Discussion

Septic arthritis is a major cause of skeletal infection of children in many parts of the world.⁵ In acute skeletal infection, staphylococcus aureus is the most common organism in all age groups including newborns.^{6,7} Group B Streptococcus and gram-negative enteric bacilli are also prominent pathogens in neonates.^{8,9} Group A Streptococcus is next in frequency but constitute less than 10% of all cases.¹⁰ As Table 1 shows that knee joints are mostly involved and other joints may also be affected.¹¹

Septic arthritis is almost always caused by hematogenous dissemination.¹² In children the metaphysis of the long bones are often the sites of infection.¹³ Gram positive cocci lodge in the terminal branches of the arteries of the metaphysis and then grow and produce exudative lesion.¹ This reported case responded to antistaphylococcal therapy dramatically.

Conclusion

Septic arthritis in children can occur and remain as solitary lesion. Large joints were affected more. Standard antistaphylococcal therapy achieved good outcome. Physicians treating the children need to be aware of taking proper history and doing physical examination and checking laboratory findings of the children with septic arthritis

for appropriate case management.

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Table 1. Distribution of affected joints in acute suppurative arthritis¹¹

Joint	Number	%
Knee	309	39.6
Hip	173	22.2
Elbow	109	14
Ankle	104	13.3
Shoulder	37	4.7
Wrist	34	4.4
Sacroiliac	5	0.6
Interphalangeal	4	0.5
Metatarsal	3	0.4
Others	2	0.3
Total	690	100.0

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Suggestion for citation of the above:

Hossain KZ, Islam MN. Septic arthritis is a mimicker of rheumatic fever. Mediscope 2019;6(1):41-3.