Original Article

A Case Report Of Polyarticular Septic Arthritis With Distal Tibia And Fibula Chronic Osteomyelitis Treated With Empirical Antibiotics And Wound Debridement

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Abstract

Septic arthritis with osteomyelitis is rare case but emergency medical condition which needs immediate intervention[1 to 2]. Most commonly seen in knee joint but can also occur in ankle joint. Patient usually presents acutely with pain, swelling, fever, restriction of movements at affected joint. Diagnosis is made on clinical examination and radiological investigation. Comorbidities is a major concern in septic arthritis cases due to adverse effects which includes localized joint destruction and systemic consequences like septicemia, organ failure and death[2 to 4]. Condition is treated with empirical antibiotic coverage for weeks with wound debridement. If not treated in adequate time it leads to future amputation and even death due to septicemia[2 to 4].

Keywords: Septic arthritis, osteomyelitis, wound debridement, empirical antibiotics.

INTRODUCTION

Septic arthritis with osteomyelitis is rare condition mainly involves knee joint. Patients usually presents with pain, swelling, restriction of movements at affected joint with and without fever. Condition isz diagnosed on clinical suspicious usually and confirmed with radiological investigation. Rarely septic arthritis can occur in ankle joint , wrist joint and small joints of hand and foot. The treatment of choice is empirical antibiotics for 6 weeks and wound debridement.

CASE REPORT

A 62 years old male presented with history of multiple discharging sinus lateral aspect of left ankle for past 2 weeks associated with swelling, difficulty in walking and fever .Patient had no h/o trauma. Patient had similar episode a year back and treated conservatively with antibiotics.

Patient is known case of uncontrolled type2 diabetes mellitus and not taking the antidiabetic medications regularly. Patient has no significant family history. On examination skin was thickened shiny with Multiple discharging sinuses with pus discharge , foul smelling, was present on lateral aspect of ankle, diffuse swelling was present over ankle, foot and distal 1\3rd of leg, warmth was present, tenderness absent, range of movements at ankle joint is restricted , movements were restricted, sensations were reduced , posterior tibialis and dorsalis pedis pulse were feeble on left side as compared with right side. Investigation includin Complete blood count, Erythrocyte sedimentation rate(ESR), C- reactive protein(CRP), Pus culture sensitivity from wound site was done. And radiological investigations includes XRAY of foot and ankle was done. On xray lytic (FIGURE 1)lesion was visualized suggestion of osteomyelitis and hence MRI ankle was done for confirmatory diagnosis. On MRI (FIGURE 3 and 4) soft tissue inflammation with signal changes and cloacal defect were noted suggesting of septic arthritis with osteomyelitis. He was planned for wound debridement and empirical treatment was started immediately with cefuroxamine and metronidazole . Intraoperatively methylene blue was injected to visualize the sinus tracts and wound debridement was done with thorough wound wash before and after debridement .Postoperatively antibiotics was changed according to culture report and patient was allowed for partial weight bearing for 2 weeks and thereafter full weight bearing was intiated and serial follow up was done .

PREOPERATIVE XRAY

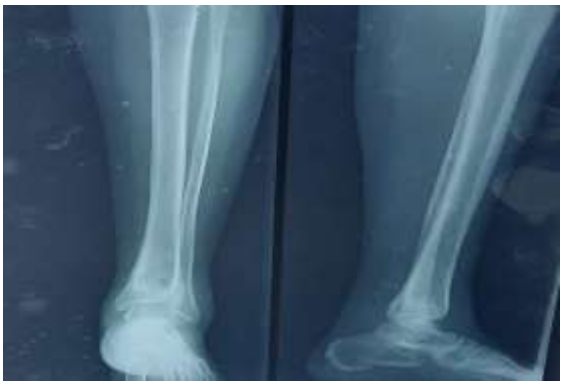

Figure :1 – XRAY Left leg with ankle AP and LATERAL View showing lytic lesion over distal tibia suggesting of infection

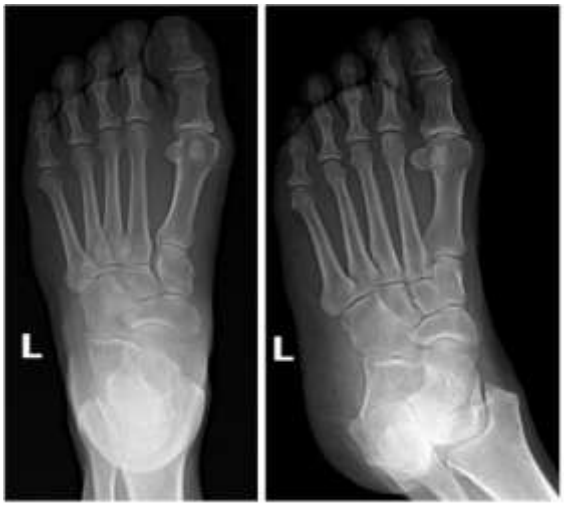

Figure :2 XRAY Left foot Anteroposterior and OBLIQUE view showing no soft tissue swelling without bone abnormality suggesting no infection in the foot

MRI OF LEFT ANKLE AND FOOT

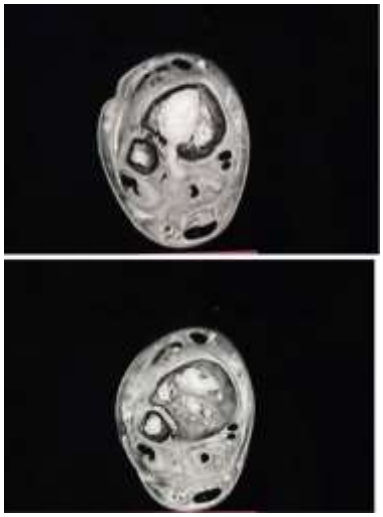

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FIGURE NO 3 : •There is diaphyseal cortical defect in posterior aspect of both tibia and fibula seen communicating marrow signal to soft tissue component – likely cloacal defect suggesting of chronic infection.

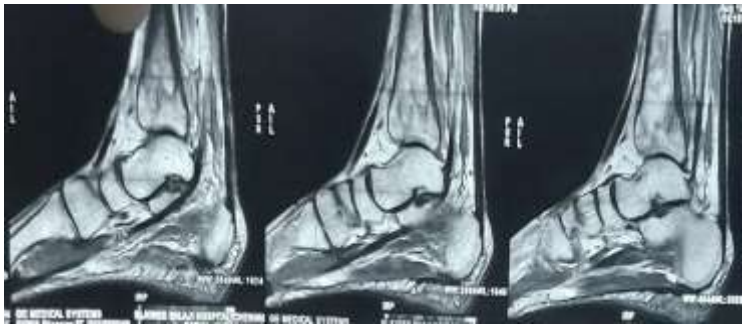

FIGURE NO 4: MRI of left ankle showing signal changes at calcaneum, talus, distal tibia, cuboid bone with inflammatory soft tissue changes without joint disruption suggestive of septic arthritis with chronic osteomyelitis

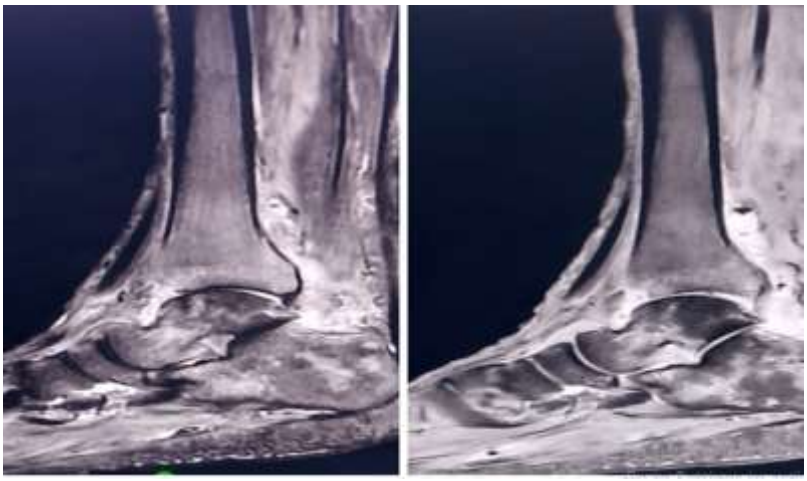

FIGURE NO 5 : MRI of left ankle showing inflammatory soft tissue along with edematous changes at tibiotalar joint with signal changes at calcaneum , talus, navicular, cuboid, distal tibia suggestive of septic arthritis with osteomyelitis of left ankle.

DISCUSSION

Septic arthritis with osteomyelitis is a rare condition. Treatment of septic arthritis with osteomyelitis is important to avoid the complications like septicaemia and other systemic complications[1]. If not treated in adequate time it may leads to amputation of affected limb and even death. Condition is diagnosed clinically and radiologically. Concurrence of subtalar joint with ankle joint arthritis should be considered in case of ankle septic arthritis[1]. This study reveals septic arthritis with osteomyelitis treated with wound debridement and empirical antibiotics improves the mobility at the affected joint and lowers the complications[2 to 4].

CONCLUSION

Septic arthritis of with osteomyelitis is a serious condition. Condition is smore commonly seen in knee joint but can involves ankle joint very rarely. Immediate medical attention is required to lowers the complications due to septic arthritis. Condition is usually occurs in elder population. Septic arthritis with medical comorbities requires vigilant attention to avoid major complications . Septic arthritis usually presents with pain, swelling, and with or without fever and restriction of movements at affected site. Adequate treatment with empirical antibiotics and wound debridement lowers the complications and improves the mobility at affected joint.

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CONFLICT OF INTEREST

Conflict of interest declared alone.

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