

Klebsiella Pneumoniae Liver Abscess With Hematogenous Long Bone Osteomyelitis

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INTRODUCTION:

Adult long bone osteomyelitis is well-known for its complicated therapy. Hematogenous spread is the least common form and spread towards long bones is rarely seen. Pyogenic liver abscess commonly involves polymicrobial as it ascends from the gut. Primary *Klebsiella sp* liver abscess (KLA) rarely been reported in the literature, but if it happens, development of metastatic infection is a characteristic feature.

CASE SUMMARY

We present a case of 35-year-old male, long-standing diabetes with an underlying liver abscess on treatment since November 2017. Patient is doing well until early January 2018 where he presented to the casualty for persistent right thigh pain affecting his ambulation. Further work out found a large abscess surrounding the femur with osteomyelitic changes. Initial debridement drained 1L of abscess which cultured *Klebsiella pneumoniae* and antibiotic was started accordingly. Unfortunately, patient had a trivial trip over bedside which then sustained midshaft femur fracture. Patient was transferred to our centre and treated as Stage IV with host Type B. Patient was arranged for debridement, bone resection and transportation with limb reconstructive system. Total of 9cm bone resected with corticotomy over the proximal aspect of femur. Patient was discharged and to continue bone transportation at home. During follow-up, patient completed bone transport after 4 months. The union and alignment are good which allows satisfactory ambulation and function.

DISCUSSIONS:

KLA is an emerging disease in Southeast Asia, strongly related to middle-aged men with diabetes. Common feature includes metastatic spread and, in this case, osteomyelitis



Plain radiograph post-operatively after transportation

of the femur. This hematogenous spread is an uncommon route and management involve multidisciplinary team to approach both the liver abscess as well as osteomyelitis. Principle of surgical intervention includes adequate drainage, extensive debridement, obliteration of dead spaces, bone gap filling, adequate soft tissue coverage and restoration of blood supply. Bony defect management is still debatable of how superior is one method to another. We use LRS to achieve permanent stability of the skeletal unit and bone transportation to manage the dead space. The open wound is managed with vacuum-assisted closure which has proven its superiority against conventional dressing.

CONCLUSION:

Current advances in antimicrobial and surgical technique allows prompt management of hematogenous osteomyelitis. The challenge remains on the wound and bone gap management.

REFERENCES:

1. Lazzarini et al (2002) 'Long bone osteomyelitis', *Skin, Soft Tissue, Bone, and Joint Infections*, 4, 439-445.