

A CASE REPORT: METALLOSIS NON-UNION OF DISTAL THIRD HUMERUS WITH IMPLANT FAILURE

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INTRODUCTION:

Metallosis is a rare condition and the precise incidence is not known. It occurs when the metallic debris is released due to continuous abrasion between metallic surfaces. The debris invades the periprosthetic soft tissue and the bone causing osteolysis, soft tissue necrosis, effusion, and bumps which subsequently can cause pathological effect or implant failure. We report a case of metallosis non union in distal humerus fracture with implant failure.

CASE REPORT:

A 28 years old male with no known medical illness, had a history of closed fracture distal third left humerus, done open reduction and locking plate left humerus 8 years ago. Patient recently came to us with a complaint of pain over left forearm.

Local examination over left forearm, there is healed scar over posterolateral forearm, deformity over distal part of forearm with skin tenting, no skin erythematous or discharge.

White cell count, erythrocyte sedimentation rate and C-reactive protein are not raised. Left humerus x-ray shows hypertrophic non union fracture distal third humerus with broken implant.

He subsequently underwent removal of implant, plating locking plate, allograft and collaramp insertion over left humerus.

Intraoperatively, there is non union fracture over the left humerus with blackish debris seen over the fracture site with the broken most proximal screw. Intraoperative bone culture and sensitivity shows no growth and bone histopathology is consistent with metallosis.

CONCLUSION:

Metallosis is a chronic process that takes months or years to manifest clinical symptoms and it is a diagnostic challenge.

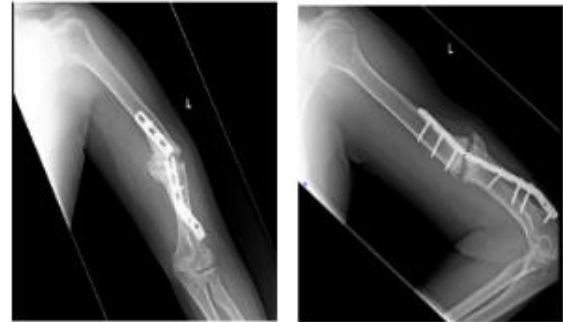


Figure 1: Preoperative left humerus x-ray: hypertrophic non union humerus with broken implant.

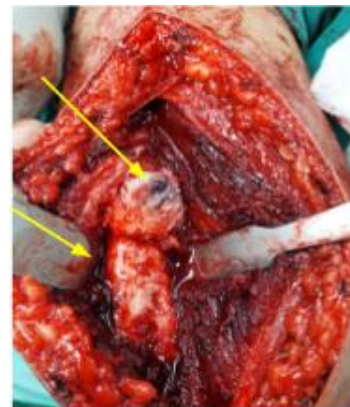


Figure 2: Intraoperative finding left forearm: metallosis over the bone and soft tissue.

Physicians and surgeons should consider metallosis as a differential as it can cause devastating local and systemic complications.

REFERENCES:

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