A CASE REPORT OF BOTH MECHANICAL AND SEPTIC FAILURE OF RADIAL HEAD REPLACEMENT: SUCCESSFUL TREATMENT WITH TWO STAGE REVISION

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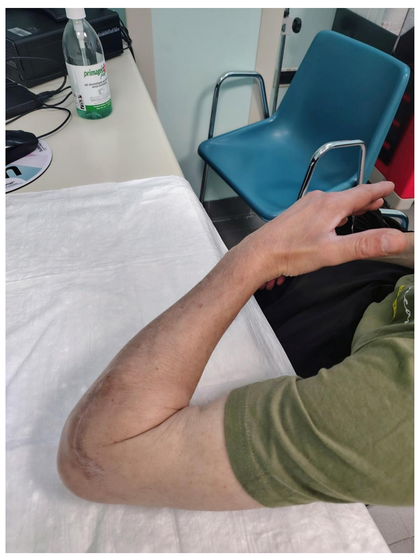
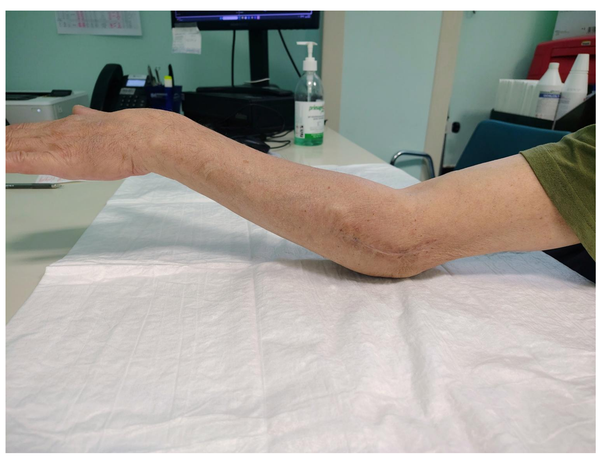
INTRODUCTION

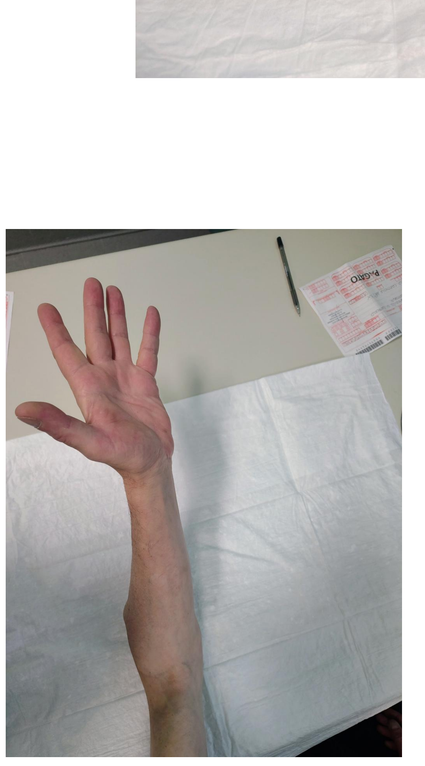
Septic mobilization of radial head replacement is a rare option in clinical practice. We want to discuss a case of implant displacement with periprosthetic infection in an active young patient, treated with two stage revision.

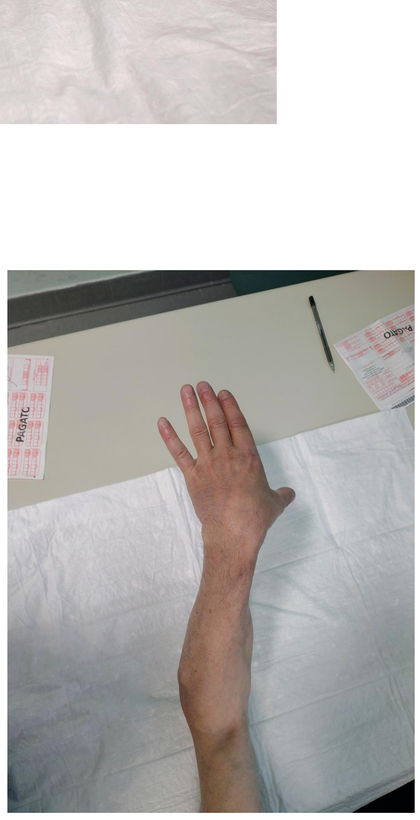
RESULTS

X rays at 30 days shows progressive filling of bone defects and **no mobilization of implant.**
Clinical results showed **full flexion** of the elbow, **-20** degrees **limitation of full extension**, **no prono-supination impairment**.
Follow up is still ongoing.



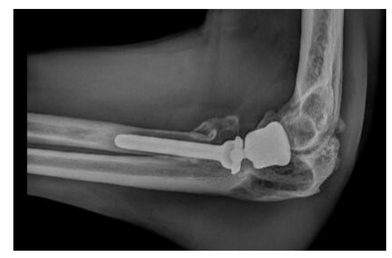


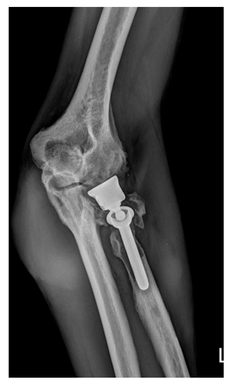




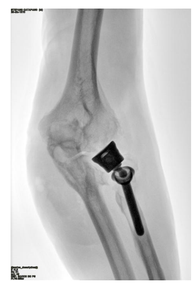
MATERIALS AND METHOD

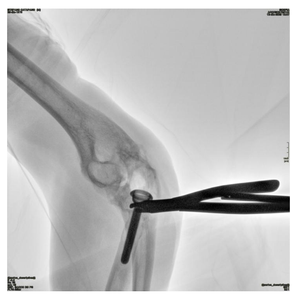
We present the clinical case of a 53-year-old male patient, left handed, with acute swelling and sinus formation at left elbow, following a radial head replacement implanted for fracture 10 years before.

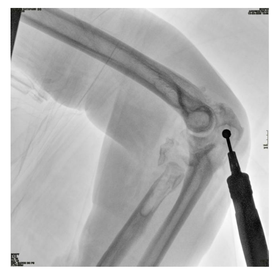


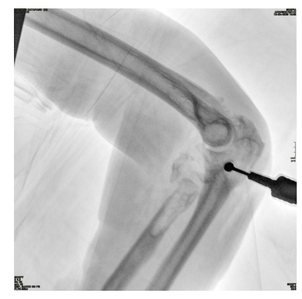


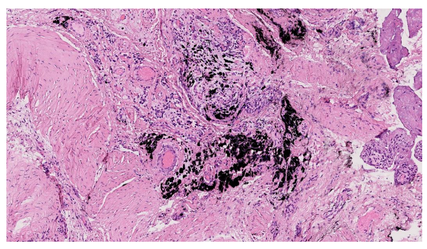
Implant displacement was associated with **local cavitary defect of both olecranon and distal humerus** of the same elbow. We performed initially a diagnostic step local aspiration and biopsy with **MSSA +** at cultures. Allergy test were all negative for orthopaedic aptenes. Patient was treated at the first stage with explant of the radial head prosthesis, which was macroscopically broken at neck/head junction, with massive local metallosis (confirmed by local metal debris inclusion in histological sections: see figures).

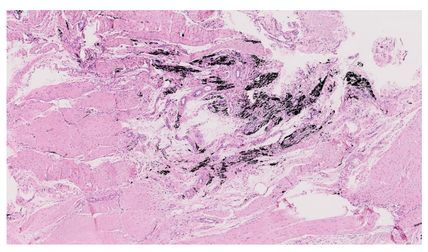


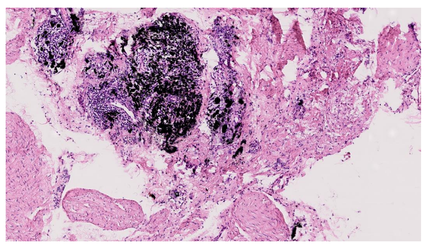




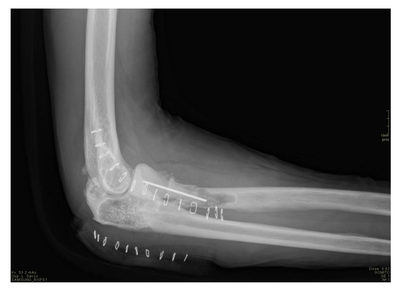


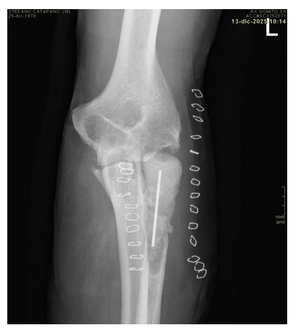




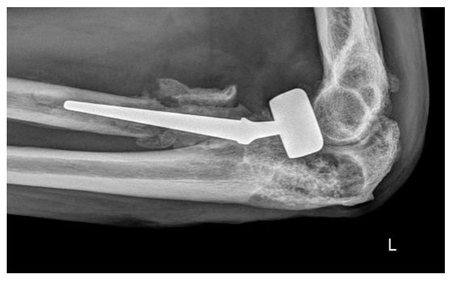


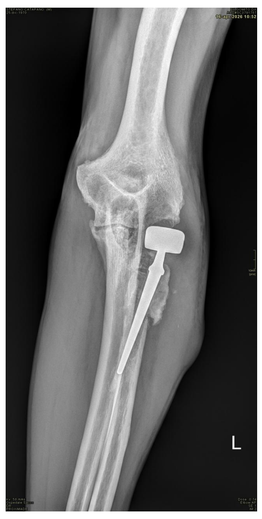
Radial head was replaced with **custom cement spacer** and local bone defects filled with bone substitute (HA+CaS) additioned with **Gentamycin.** Intraoperatory cultures were positive for **MSSA** and **S. capitis**.





After **targeted antibiotic oral treatment for 6 weeks** and washout we performed second stage procedure with implant of revision radial head replacement and local antibiotic delivery (Calcium Sulphate with **Gentamycin**) was performed.
Intraoperatory cultures were negative.





CONCLUSIONS

The treatment of a rare complication like metallosis and septic involvement in an elbow replacement is a potential disaster in terms of outcome for patient.
We present the very good clinical outcome for patient with radial head revision alone, preserving bone stock for further treatments.