

Post Traumatic Arthritis Secondary to Intra Articular Malunion of the Distal Radius Treated by Chondro-costal Graft

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INTRODUCTION: 4 cases of postraumatic arthritis of the distal radius treated by chondro costal graft are reported with a minimum follow up of 2 years

MATERIAL and IMETHODS: One 22 years old patient with a dislocated radiocarpal joint 6 months after an injury, 2 patients (48 and 53 years old) respectively 1,5 and 2 years after a intraarticular fracture of distal radius and a patient (74 years old) with radio lunate arthritis reported two mains complaints : pain and stiffness. Location of the loss of cartilage was central in two cases and palmar in the others. A dorsal approach in one cases, a palmar approach in the three others allowed reduction and reconstruction of the destroyed radial part of joint. A chondro costal graft harvested on the eight's rib was inserted and fixed by plate in place of the articular impaction. Plaster cast of 3 months in the first case and 1 month in the three others cases followed the articular reconstruction

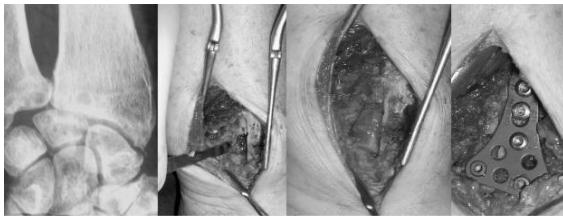


Fig. 1: Pre and per operative aspect of distal Radius with the graft

RESULTS: No complication have been pointed. Union was achieved in all 4 cases. Integration and viability of the graft were evaluated with RMI. At the highest follow up fonctionnal result are excellent in the first case. Motion and grasp are similar than the controlateral side. For the three others patients motion in flexion - extension reached respectively 74%, 69%, 54% of controlateral side, and grasp reached respectively 62%, 73% and 68% of controlateral side.

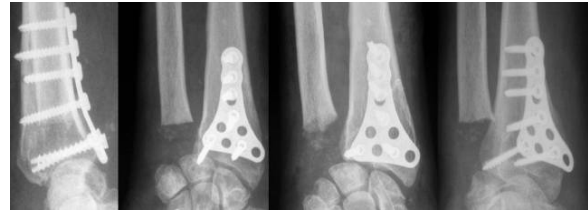


Fig 2 : post operative Xray

CONCLUSIONS Reconstruction of a partially destroyed articular surface by a costal graft is reliable and allows filling and resurfacing an articular cartilage void. If chondro costal graft is currently used in maxillo facial surgery it is the first report in post traumatic arthritis secondary to intra articular mal union.