



Outcomes of Arthroscopic Treatment of Osteochondritis Dissecans of the Capitellum and Description of the Technique

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Introduction

- OCD of the capitellum is a progressive disorder thought to result from repetitive microtrauma and valgus load
- Left untreated it results in severe flattening and fragmentation of the capitellum which causes pain, restricted range of motion and limitation of activities

Objective

- Present a novel technique for all-inside arthroscopic fixation of capitellum OCD using suture fixation and autogenous bone grafting

Methods

- 4 adolescent elite athletes with 5 OCD lesions who underwent presented technique
- Recorded post operative range of motion, pain, return to activity, DASH, Mayo, Oxford Elbow scores

Technique

- All inside circumferential suture fixation performed arthroscopically with additional 3cm posterior incision
- Repair supported with iliac crest bone graft placed through humeral bone tunnel

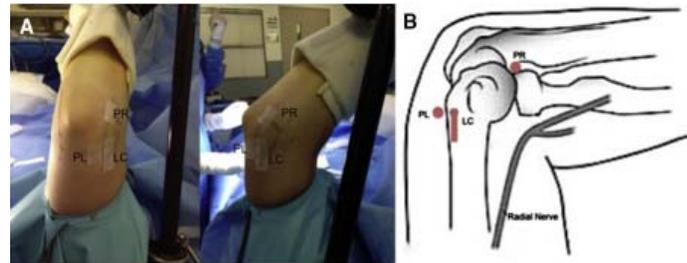


Figure 1: (A) Patient elbow positioning for procedure. Elbow is flexed to 90deg and held over the patient's body. The portals and posterolateral column incision used during the procedure are shown. (B) Further demonstration of portals and posterolateral incision (LC). PL, posterolateral portal; PR posterior radiocapitellar portal



Figure 2: Intraoperative radiographs showing arthroscope and shaver in elbow. (A) The arthroscope is in the distal posterolateral portal and the shaver is in the posterior radiocapitellar portal. (B) Positioning of the guidewire before placement. (C) Placement of multiple guidewires. A freer elevator is used to prevent over-penetration of the capitellum

Results

- Mean follow up of 2.8 years
- Union achieved in all patients
- Mean return to play: 4 months, to return to elite level of competition: 9 months

Motion	Mean	SD	Minimum	Maximum
Extension, °	2	4	0	10
Flexion, °	153	11	135	160
Pronation, °	86	4	85	90
Supination, °	91	2	90	95

Outcome Measure	Mean	SD	Minimum	Maximum
QuickDASH score	11	8	4	20
QuickDASH sport module score	19	20	0	44
Oxford Elbow score	42	5	37	47
Mayo Elbow score	88	7	85	100
VAS score	2	1	1	3

QuickDASH, short version of Disabilities of the Arm, Shoulder and Hand questionnaire; *VAS*, visual analog scale.

Conclusion

- Arthroscopic all-inside fixation of unstable OCD lesions is a successful technique, facilitating athletes to return to an elite level of play