

Arthroscopic synovectomy for the rheumatoid elbow: A short-term outcome
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We report a short-term outcome of arthroscopic synovectomy of the elbow for rheumatoid arthritis.

Clinical cases: This method has been performed in 11 elbows of 10 patients who have had rheumatoid arthritis since 1997. The patients were 8 females and 2 males, and their average age was 54.3. One patient had the second synovectomy in the same joint 3 years and 5 months after the first operation. Their pre-operative classification of functional impairment according to Steinbrocker was class 2 in nine patients and class 3 in two. Radiographic evaluation of the elbow joint according to Larsen was grade 1 in one patient, grade 2 in one, grade 3 in four and grade 4 in five. The average follow-up period was 2 years and 2 month (ranging from 2 months to 3 years and 9 months).

Operative procedure: Originally, Poehling's method was used for elbow arthroscopy. The patient was placed in the prone or lateral decubitus position with the arm resting on a padded bolster. The operation was performed under general anesthesia using an air-tourniquet. At first, a proximal medial portal was made then an antero-lateral portal was made by inside-out technique using an arthroscopy rod. Mainly these two portals were used for examination and synovectomy. For synovectomy, shavers, especially order-made shavers, and suction punches were used. Radio frequency ablation system was used in recent cases. Synovectomy was mainly performed in the anterior joint. Bony prominences were also smoothed, if they were obstacles in flexion. The radial head was not resected.

Evaluation methods: The Elbow Evaluation Score by the Japanese Orthopaedic Association (JOA score) was used for functional evaluation. Visual Analogue Scale (VAS) was used for pain evaluation. Larsen's grade and Coronoid height ratio (Co-HR) were used for radiological analysis. T-test was used for statistical analysis.

Results: JOA score was improved significantly (pre-operatively 63 points; post-operatively 80 points). VAS was also improved significantly (pre-operatively 63 points; post-operatively 28 points). Range of motion of the elbow was improved in extension/flexion but no change was seen in supination/pronation. One grade-up

change in Larsen's grade was noticed in three patients. No significant change in Co-HR was noticed. No complication has been encountered. No change in Steinbrocker's classification was observed.

Discussion: Although the follow-up period was short, pain was relieved very much and the functional results were satisfactory not only subjectively but also objectively. This procedure was effective even in the cases of Larsen's grade 4. However, long-term follow-up study is needed for further analysis.

Conclusion: Arthroscopic synovectomy for the rheumatoid elbow is a beneficial procedure especially for pain relief.