

Rheumatoid Arthritis

가

0.5~2%¹³⁾ 5 20%~50%

10,12)

가

가

open synovectomy가

가가 가 open synovectomy

가¹⁵⁾

1.

(bony architecture) 4 Morrey⁸⁾ (bone quality), 가 1

2 3

4 가 (Table 1).

Table 1. Radiographic classification of rheumatoid arthritis of the elbow 8)

Grade	Radiographic appearance
I	Mild to moderate osteopenia, joint space preservation
II	Joint space narrowing
III	Complete loss of joint space
III A	Maintained bony architecture
III B	Associated bone loss
IV	Severe bone destruction, varying degrees of ulnohumeral instability

2.

가 Mayo grade 1~2 가 Mayo grade 3
 grade 4 9)
 가 (axial loading)
 1).

3.

가 90 가
 . 가 portal direct lateral,
 anterolateral, anteromedial, proximal medial, posterolateral, direct posterior portal
 supine position anterolateral portal primary diagnostic portal , lateral
 epicondyle, olecranon tip radial head soft spot direct
 lateral portal
 radiocapitellar joint lateral epicondyle
 2-3 cm, 1 cm , 2 cm, 1 cm
 10). portal distal humerus, trochlea,
 coronoid process (Fig. 1). Anteromedial portal anterolateral portal
 inside-out outside-in , flexor crease
 . capitellum, radial head, annular ligament, coronoid process
 proximal medial portal prone position 11), medial
 epiconyle 2cm intermuscular septum
 (Fig. 2). Stothers 16) anteromedial proximal medial portal
 portal
 anterolateral portal lateral epicondyle 1~2 cm proximal lateral portal
 portal . Medial
 portal
 posterolateral portal olecranon tip 3 cm , straight
 posterior portal olecranon tip 3 cm (Fig. 3).
 olecranon fossa transhumeral technique 16).
 . proximal medial portal , proximal lateral portal
 .
 anterolateral anterolateral portal . posterolateral
 straight posterior portal .

Direct lateral portal medial gutter
 7). osteophyte excision, loose body extraction,
 contracture release . Anterior or posterior retractor portal
 blunt periosteal elevator retraction 가
 15). Anterior retractor portal proximal anterolateral portal
 posterior retractor portal direct posterior portal 2 cm

Hemovac

15)

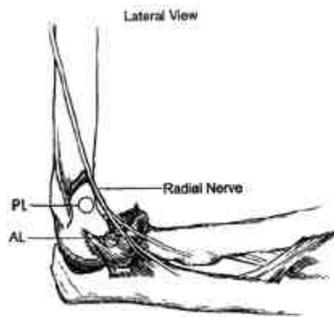


Fig.1. Lateral portals; anterolateral (AL) and proximal lateral (PL) portals¹⁶⁾.



Fig.2. Medial portals; anteromedial (AM) and proximal medial (PM) portals¹⁶⁾.

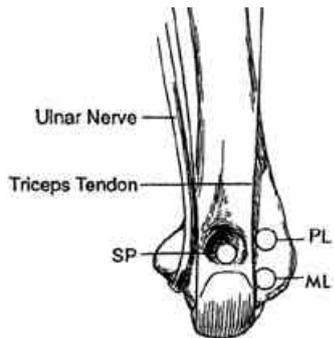


Fig.3. Posterior portals; poaterolateral (PL), straight posterior (SP) and midlateral (ML) portals¹⁶⁾.

4.

open synovectomy 3 70%~90%
 , arthroscopic synovectomy
 2,3,6,12,17,18) , Mayo grade 1, 2 3), Disease-modifying antirheumatic drugs(DMARDs)
 가 42 57% 15). Lee 6) 가 97% good , excellent
 excellent 가 8 43% , Horiuchi 3) 2 71% good ,
 8 71% Mayo grade 1, 2
 2004 Nemoto 9) 3 Larsen grade⁵⁾ 4

5.

(persistent portal drainage) 가 , Kelly 4) 473 22
 (5%) 가 direct lateral anterolateral portal
 가 10 ,
 가 4).
 가 bony landmark가 14).

open synovectomy

REFERENCES

- 1) Connor PM and Lundeen GA: The rheumatoid elbow; current concepts and controversies. Curr Opin Orthop, 14:302-306, 2003.
- 2) Ferlic DC, Patchett CE, Clayton ML and Freeman AC: Elbow synovectomy in rheumatoid arthritis: Long-term results. Clin Orthop, 220: 119-125, 1987.
- 3) Horiuchi K, Momohara S, Tomatsu T, Inoue K and Toyama Y: Arthroscopic synovectomy of the elbow in rheumatoid arthritis. J bone Joint Surg, 84-A:342-347, 2002.
- 4) Kelly EW, Morrey BF and O'Driscoll SW: Complications of elbow arthroscopy. J Bone Joint Surg, 83-A:25-34, 2001.
- 5) Larsen A, Dale K and Eak M: Radiographic evaluation of rheumatoid arthritis and related conditions by standard reference films. Acta Radiol Diagn, 18:481-491, 1977.

- 6) Lee BP and Morrey BF: Arthroscopic synovectomy of the elbow for rheumatoid arthritis. A prospective study. *J Bone Joint Surg*, 79-B:770-772, 1997.
- 7) Lyons TR, Field LD and Savoie FH: Basics of elbow arthroscopy. *Instr Course Lect*, 49:239-246, 2000.
- 8) Morrey BF and Adams RA: Semiconstrained arthroplasty for the treatment of rheumatoid arthritis of the elbow. *J Bone Joint Surg*, 74-A:479-490, 1992.
- 9) Nemoto K, Arino H, Toshihara Y and Fujikawa K: Arthroscopic synovectomy for the rheumatoid elbow: A short-term outcome. *J Shoulder Elbow Surg*, 13:652-655, 2004.
- 10) O'Driscoll SW and Morrey BF: Arthroscopy of the elbow; Disgnosis and therapeutic benefits and hazards. *J Bone joint Surg*, 74-A:84-94, 1992.
- 11) Poehling GG, Whipple TL, Sisco L and Goldman B: Elbow arthroscopy: A new technique. *Arthroscopy*, 5:222-224, 1989.
- 12) Porter BB, Richardson C and Vainio K: Rheumatoid arthritis of the elbow; The result of synovectomy. *J Bone Joint Surg*. 56-B:427-437, 1974.
- 13) Silman AJ and Hochberg MC: *Epidemiology of the rheumatic disease*. Oxford, Oxford university press, 1993.
- 14) Steinmann SP: Elbow arthritis. In: *Orthopaedic Knowledge Update (Shoulder and Elbow)*. Norris TR Eds, Illinois American Academy of Orthopaedic Surgeons, p333-341, 2002.
- 15) Steinmann SP, King GJW and Savoie FH: Arthroscopic treatment of the arthritic elbow. *J Bone Joint Surg*, 87-A: 2114-2121, 2005.
- 16) Stothers K, Day B and Regan WR: Arthroscopy of the elbow; Anatomy, portal sites, and a description of the proximal lateral portal. *Arthroscopy*, 11(4):449-457, 1995.
- 17) Tulp NJ and Winia WP: Synovectomy of the elbow in rheumatoid arthritis: Long-term results. *J Bone Joint Surg*, 71-B:664-666, 1989.
- 18) Vahvanen V, Eskola A and Peltonen J: Results of elbow synovectomy in rheumatoid arthritis. *Arch Orthop Trauma Surg*, 110:151-154, 1991.