
Luncheon-Seminar 1 "Diagnosis based Total Elbow Arthroplasty and their longevity"

Feb. 3rd (Fri) 12:40~13:40
Room 1 (Yamagin Kenmin Hall 2F Main Hall)

LS1-1



Diagnosis based Total Elbow Arthroplasty and their longevity

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The Aim of Total Elbow Arthroplasty (TEA) is to restore the functional arc, stability, pain relief, and correction of deformity. Unlinked, resurfacing Kudo Elbow was designed for rheumatoid arthritis, and to remove the radial head from its very first generation, and to realign the stem by offset of the ulnar component and positioned at the center of the articulation. Linked, Coonrad-Morrey (C/M) total elbow implant was designed loose hinge joint, for wide spread diagnosis, and coupled the humeral and ulnar component with pin-within a pin mechanism. Both implant has been widely used in JAPAN.

From 1999 to 2013, our experience followed over 10 years, was 114 TEA in patients with rheumatoid arthritis (RA), trauma, and osteoarthritis (OA). Follow-up period was 10-22 years. Seventy nine Kudo, and 35 C/M TEA was performed in this period.

Mean ROM after TEA were flexion of 130 degrees, and extension with -30 degrees. In severe stiff elbows of extension over -50 degrees, post-op. improvement was limited to less than 30 degrees. Overall results for both Kudo and C/M TEA which has been followed over 10 (10-22) years was 89 points in Mayo Elbow performance score. In our series, The Kaplan-Meier survival analysis, setting revision as the end-point indicated survival rate was 96.5 % in Kudo and 98% in C/M TEA at 10 years, and 80% at 15 years.

Under well understanding diagnosis, implant design and elbow biomechanics, both total elbow implants guarantee good clinical and functional results at 15 years.

【Curriculum Vitae】

Dr. Katsunori INAGAKI is member of Mayo Elbow Club. He was a research fellow of Mayo Clinic (1997-1999), and learned elbow Biomechanics from Dr.An and Dr.Morrey and Dr.O'Driscoll. He is recognized as a leading authority in elbow surgery and research in Japan. He focuses his research on both basic science and clinical studies of the elbow. He studies the biomechanics of the joint when it is intact, injured and has been repaired. His research includes

the biomechanics of prosthetic total elbow replacement, coronoid fractures, instability. His clinical interests include sports medicine injuries of the elbow biomechanics, ligament reconstruction, fractures and fracture fixation, elbow contractures, elbow arthroscopy and total elbow arthroplasty.