WRIST JOINT REPLACEMENT WITH CERAMIC IMPLANTS

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Abstract

Arthritis of wrist joint can cause significant pain and decreased motion. Total wrist arthroplasty can provide pain relief and motion. Ceramic implants can be used in arthroplasty, but their longer-term performance in the wrist remains unknown. The aim of this study is to review outcomes utilizing an all-ceramic bearing total wrist arthroplasty.

Methods: The study was planned as prospective, non-randomized, non-blinded, single arm study. We reviewed 83 cases who underwent total wrist arthroplasty with all-ceramic bearing endoprostheses during 2010 - 2021. Three patients underwent arthroplasty on both sides

Results:

1. The survival rate of the endoprosthesis of the wrist joint was 86%
2. The baseline DASH score was 63.14±16.57 (15.8 - 86.2), and the MWS was 31.64±18.55 (0 - 80). Pain was scored by visual analogue pain scale (VAS): the average VAS baseline value was 6.66±2.48 (0 - 10).
3. According to the results of a long-term study, stability and positive dynamics are noted,
4. Preservation of the physiological mobility of the bones of the distal series of the wrist contributes to the stabilization of the distal component during long-term study.

We evaluated a good result in those cases when there was a positive trend in all three indicators (pain, adaptation, and function). A satisfactory result was considered by us in those cases when there is no dynamics in one of the indicators.

Conclusions: Ceramic TWA affords good pain relief and functional improvement and is a good option in the management of wrist arthritis.



Patient M. *Diagnosis:* Rheumatoid arthritis. Complex contracture of right wrist joint

Recent Publications

1. **Wrist Joint Endoprosthesis (Case study)**
   T. I. Aleksandrov, Prokhorenko V.M., S.I. Chorny T.I., Simonova E.N.
   Spring days of orthopedics. Abstract of International Congress
   Novosibirsk Research Institute of Traumatology and Orthopedics n.a. Jacob Civ'jan, 2019, 6-7
2. **Postoperative correction of ulnar deviation**
   T. I. Aleksandrov, Simonova E.N., S.I. Chorny T.I., Prokhorenko V.M.
3. **Early and mid-term results of total joint replacement of carpo-metacarpal joint**
   Bulletin of Traumatology and Orthopedics of N.N. Priorov, 2020, 19-27

4. **Results of the for total replacement of the wrist joint with Russian-German ceramic implant**
   T. I. Aleksandrov, Prokhorenko V.M., Simonova E.N.
   Traumatology Janet orthopedics, 2019, 124-127
5. **Metacarpophalangeal joint replacement in Novosibirsk Research Institute of Traumatology and Orthopedics**
   Simonova E.N., T. I. Aleksandrov, Prokhorenko V.M., S.I. Chorny, 2019, 200-201

Photograph



Dr. Timofey Alexandrov has been working in Novosibirsk Research Institute of Traumatology and Orthopedics. He studies the hand problem since 2003. The only surgeon in Russia with a unique fundamental experience in wrist and finger joint replacement using ceramic implants

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