Short- and midterm results of the uncemented, unconstrained HM-MCP-Arthroplasty in R.A. - A multicenter Study -

Hagena F.-W., Mayer B., Gottstein J., Meuli H.-Ch.
Auguste-Viktoria-Klinik, Bad Oeynhausen, Germany
Rheumazentrum Köln, Eduarduskrankenhaus, Cologne, Germany
Lindenhofspital, Bern, Swiss

In 85 % of the patients with rheumatoid arthritis the MCP-joints are involved with increasing deterioration an loss of function. The standard replacement of the MCP-joints using the Swanson-Silastic Spacers shows pain reduction and a realignment of the fingers, but the functional capacity is not improved. The HM-MCP-arthroplasty offers a concept for better function an restoration of the rheumatoid hands and osteoarthritis.
In a prospective multicenter study 63 HM-MCP arthroplasties have been implanted. We used the redesigned model (PE-metacarpal head and Ti-ODH phalangeal base) with titanium stems. The follow up-time is 18 months (6 – 40 months). All patients are controlled with clinical and radiographic evaluation.
The active ROM of the MCP-joints demonstrated on average flex./ext. 65°/10°/0 (preop. 70°/15°/0). The grip strength at FU demonstrated 80 % of the untreated contralateral control hand. Pain has been improved using the verbal pain scale at 1.6 (preop. 2.1).
Radiographically all metacarpal and phalangeal stems show an osteointegration of the implants. Radiolucent lines of < 1 mm have been detected at the phalangeal base without a sign of loosing.
Complications: 1 palmar luxation with a successful closed reposition, 1 ulnar subluxation of the fifth finger, 1 unsuccessful revised palmar luxation.
The results of the uncemented, unconstrained HM-MCP-arthroplasty show an improvement of the hand function and pain reduction. This endoprosthesis gives a new chance to treat the rheumatoid hand at an earlier stage of destruction before severe contracture of the soft tissues.