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Free Paper Content

Hip - Long term results

Thursday, June 4 2009 / Room F1
Time: 14:00 - 16:30

Moderators: Eduardo Garcia Cimbrello, Martin Krismer
Speaker: John Thilo

| Pid | Title |
|------|---|
| F259 | The uncemented titanium coated monobloc Robert Mathys acetabular component.A retrospective study over 15 years. |

Authors

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Abstract

Abstract: Introduction: We present a clinical and radiology follow-up of the uncemented titanium coated monobloc Robert Mathys (RM) Acetabular Component (Mathys AG Bettlach, Bettlach, Switzerland). The acetabular component is a monobloc hemispherical cup manufactured from Ultra High Molecular Weight Polyethylene (UHMWPE), with a pure titanium particle coated surface. With heat and pressure, the particles are blasted into the polyethylene surface. The coating promote osseointegration. Stability of the cup is provided by 2 anchoring pegs on the weight bearing part on its outer surface. The inclination of pegs and holes diverge by 5 degrees providing a press-fit effect that increases the rigidity of the primary fixation and this is supplemented by screws inserted through the periphery of the cup. Two cups designs are available, a full-profile and a bevelled cup. In all cases the bevelled cup was used. The purpose of this study was to assess the clinical performance with 15 years of this cup. Methods In this study, the status of the uncemented titanium coated RM cup placed in patients who underwent a primary total hip replacement between January 1, 1988 and December 31, 2001 was determined. A total of 1876 cups (1584 patients) were placed in patients with a permanent residence in Berlin. The femoral component was either an uncemented or a cemented stem in an supine lateral approach with either a 28 or 32mm diameter head. The majority of the heads were ceramic and stainless steel. The diagnosis was osteoarthritis, rheumatic arthritis, femur neck fracture, developmental dysplasia of the hip (DDH). 1034 patients were contacted by telephone. Out of this patients group 539 patients (678 cups) were evaluated by clinical examination (HHS), radiographic investigation and social evaluation by the WOMAC and NHS score. 451 patients who had died unrelated to the operation. Lost of follow up were 65 patients (69 Cups) and 34 patients (48 cups) had to be revised. Results: The cumulative survival rate of the RM cup is 98.2 percent at 5 years, 97.5 percent at 10 years and 96.9 percent at 15 years. The survival rate in the ceramic head group is 98.7 at 15 years and by using stainless steel head 91.7 at 15 years. Reseaon for re-opertion was in 34 patients aseptic loosening, 8 patients had infection. Dislocation, malpsition and periprosthetik fracture in 2 patients. In the group with clinical evaluation, the HHS was in 80.2 percent of all patients good and ecellent, 9,7 percent had a moderate result and 10,1 percent had a poor result. Discussion/Conclusion: The low failure rate for loosening demonstrates that this implant has excellent ongrowth and fixation potential. The RM Cup has been shown to function well at up to 15 years post implantation. Its success may in part be due to the one-piece design.

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- Sports / knee soft-tissue
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- Shoulder / elbow
- Hand / wrist
- Foot / ankle
- Pediatrics
- Bone and Joint Tumor
- Infection
- Osteoporosis
- Pain control/ rehabilitation and non-surgical management
- Basic science

EFORT - JOINT EFFORTS