

## **20 year long term results of cementless THR in CDH using the RM cup and the CLS stem**

S. Mai, M. Ihle, W. Siebert

### **Background**

Studies of acetabular reconstruction with use of cement have demonstrated increasing rates of cup failure in patients with congenital dysplasia. Only few studies with long-term results are available for uncemented cups. The purpose of this study was to review the clinical and radiological results as well as to evaluate the rate of revision in this group of patients.

### **Methods**

We evaluated the long term results of 18 consecutive cementless THR in 16 patients with osteoarthritis secondary to developmental dysplasia of the hip using the coated RM-cup and the CLS-stem. This is a prospective study with an average follow-up of 19.6 years (18.2 to 20.9). 14 patients with 15 hips could be clinically and radiographically evaluated examined, 2 patients with 3 hips died. There was no lost to follow-up.

### **Results**

No implant had to be revised because of aseptic loosening or other reasons and no implant had evidence of radiographic loosening. 9 cups were not completely covered by host bone which did not affect the outcome. At the latest follow-up the mean Harris Hip Score was 92 (81 to 100) and the average wear of the cup was 0.12 mm per year.

### **Conclusions**

The coated RM-classic cup showed excellent fixation at a long-term duration of follow-up of almost twenty years in this selected set of patients with developmental dysplasia. Complete bone coverage is not needed for stable fixation of this cup thus allowing a reliable reconstruction of the anatomical center of rotation and a mean abduction angle of 42°.