

## Frühe Resultate des Primär Birmingham Hip Resurfacing

The following is a summary of an peer-reviewed publication of K.A. DE SMET, C. PATTYN, R. VERDONK on the &ldquo;Early Results of Primary Birmingham Hip Resurfacing, Using a Hybrid Metal-On-Metal Couple&rdquo;, published in Hip International / Vol 12 no. 2, 2002 / pp. 158-162. - with permission of the Publisher -

### EARLY RESULTS OF PRIMARY BIRMINGHAM HIP RESURFACING,

### USING A HYBRID METAL-ON-METAL COUPLE K.A. DE SMET, C. PATTYN, R. VERDONK

GHENT UNIVERSITY HOSPITAL BELGIUM INTRODUCTION The association between high volumetric wear, polyethylene particulate debris, osteolysis and loosening in total hip arthroplasty in young patients is well recognised and understood. This has resulted in an interest in alternative bearings, particularly in young and active patients. At our service, since the year 2000, only alumina ceramic bearings or metal-on-metal bearings are used in patients under the age of 75. From September 1998 till December 2002 we performed 560 metal-on-metal Birmingham Hip Resurfacings. This prosthesis is becoming more and more widely used all over the world but mainly in Great-Britain. The history of failures with the Charnley teflon-on-teflon and the Wagner metal-on-polyethylene prostheses makes resurfacing very controversial. The results achieved with a new metal-on-metal resurfacing have not been published yet. Theoretical advantages are less bone destruction, less bone resection, normal femoral loading, avoidance of stress shielding, maximum proprioceptive feedback and restoration of normal anatomy. In addition reduced risk of dislocation, less leg lengthening and easier revision should convince us to perform metal-on-metal resurfacing. With the introduction of the Birmingham Hip Resurfacing prosthesis and a refined instrumentation it should be possible to avoid the problems of the earlier designs. The aim of our study is to evaluate the performance of this prosthesis in young patients and to prove that good instrumentation can provide good placement of the prosthesis. The clinical results are excellent; none of the early problems associated with the Wagner resurfacing (metal-on-polyethylene) are encountered. DISCUSSION The early clinical and radiological results in this group of metal-on-metal resurfacing are very satisfactory with Harris and PMA scores indicating early clinical success. The high percentage of strenuous activity in this young patient group satisfies the expectations of the resurfacing, notably anatomical restoration, with restoration of leg length and offset. A faster recovery and shorter hospital stays are becoming standard with this procedure. The absence of dislocation in our series corresponds with the scientific studies done on larger bal heads and dislocation. A femoral neck fracture can in our philosophy only occur with a poor technique or improper indications (elderly people &ndash; osteoporosis). SUMMARY Using only alternate bearings in patients under the age of 75, the metal-on-metal Birmingham Hip Resurfacing appears to be a good alternative in young active patients and the results are promising. Meticulous surgical technique is a key to a good postoperative and long-term result. Proper preoperative templating and reproducible placement of the prosthesis components, together with surgical skill can result in an excellent outcome for the patient without any restrictions in activities. The metal-on-metal bearing should guarantee a low-wear result without osteolysis.