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[O75] POWDER TECHNOLOGY APPLIED TO THE MAJOR ACETABULAR BONE LOSS: A INNOVATIVE MASSIVE CUSTOM MADE ACETABULAR COMPONENT. THREE YEARS OF FOLLOW-UP FOR 13 PATIENTS

G rard Giordano¹

¹H pital Joseph Ducuing, Traumatology and Orthopaedic Surgery Department, Toulouse, France

Aim: To introduce and promote a new technic and a new component using the 3D technology in the extreme acetabular revisions.

Method: Since 2012, 13 patients, nine women and four men, were treated, 12 for a chronic complex PJI and one for an aseptic loosening. The average age was 75 years old (60 -90 years), the average follow-up 18,6 months (7-36 months).

The revisions were bipolar in 12 cases and unipolar in one case for the oldest patient. For the septic cases, we performed 7 one stage procedure and 5 two stages. The femoral components were in 7 cases a modular stem, in 5 cases a massive component and a total femur. All these massive components were combined with a cemented double cup.

The bone loss was evaluated with the AAOS, the Praposky and the Saleh classifications.

A preoperative and postoperative Oxford score was used.

Results: The bone loss are major; 9 stades III, 4 IV for the AAOS classification, 7 III A, 6 III B for the Praposky and 3 III, 6 IV, 4 V for the Saleh classification. The classifications weren't change by the component removal.

10 components were implanted without using cement. For the three cemented implants, the bone loss interested the columns and the roof. An acetabular disruption isn't a contrindication of an uncemented option.

We report one early failure, in relation with no surgical postoperative complications. A good preoperative anchorage had never failed in the follow-up.

The preoperative Oxford score was on average 8,9 (4-15) and the postoperative 33,6 (16-44).

We report one early failure of a two stage procedure. Two patients underwent a recovery for partial change with no custom made implant involvement. In doing so, we have found that these cement less implants were well integrated and stable two months after the implantation.

The most significant events are skin complications always after an extensive debridement, treated systematically by an iterative debridement.

None of these complications appear to be related to the use of these implants.

Conclusions: It's the first series which reports the use of the powder technology for a custom made component. In our series, it interests specific situations; elderly patients failing conventional medico-surgical strategies in complex functional and PJI. First results are really promising.

This technology simplifies the complex acetabular reconstructions. It's a key point for the immediate postoperative functional management and to limit complications.