

Acrylic composite prosthesis reconstruction after wide peri-acetabular resection for bone malignancies.

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Introduction :

After peri-acetabular resection for bone sarcoma, a reconstructive procedure is necessary to stabilize the hip, to avoid limb discrepancy and permit full weight bearing.

Methods and Material : Our reconstructive procedure uses a titanium cup with long screw fixed in remaining bone. Once the cup is firmly fixed to the bone, the gap between cup and bone is filled with cement loaded with antibiotics. Then, the components of an total hip prosthesis are implanted. Since 1990, we used such a reconstructive procedure in 60 patients (p.), 32 with bone sarcomas involving the acetabulum and 28 for metastatic disease. Average duration of reconstructive procedure : 45 minutes. Walking started 4 to 10 days after operation, full weight bearing authorized after 6 w.

Results : *Postop. complications* were : 10 deep infections and 7 required ablations of the prosthesis. 33 % experimented postop. dislocation of the hip. 17 p. had to be reoperated. 4 loosening have been observed.

Oncologic results : With a median follow up of 6 y., 32 p. died of disease, 1 from unrelated disease. 2 others are alive. 10 local recurrence were observed. The difficulty to obtain wide margins explains the high rate of local recurrence (16 %). For p. seen with localized disease, 5 y. O.S. is 75 %, 5 y. DFS 60 %.

Orthopaedic results according to EMSOS criteria were excellent in 9, good in 35, fair in 9, bad in 7. The mean functional score of 58 p. who had still their prosthesis is 80 % with usually no pain, excellent acceptance, length discrepancy < 1 cm, average flexion 100° and illimited walking without support.

Conclusion : The rapidity and the flexibility of this procedure plae for this reconstructive technique. A computed guide will be of great help to obtain safe margins and perfect prosthesis positioning.