

'Cemented Dome' Hip Spacer in Acetabular Reconstruction: A Case Series

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INTRODUCTION:

Acetabular bone loss reconstruction in traumatic and infected cases imposes great challenge to surgeons to create a supple hip joint pending second stage revision. Conventional method of using a static spacer and intramedullary cement coated device creates proximal migration of femur. This technically demanding surgery requires extensive release during revision to restore native centre of rotation risking the integrity of abductor mechanism and offset.

REPORT:

Five patients post acetabular plating underwent debridement, removal of implant and dynamic cement spacer insertion. Challenges faced in this situation are maintaining the most appropriate offset and stable joint in the face of acetabular bone loss. Based on Paprosky classification, the bone loss faced in this series were Paprosky type 2A and 2B.

Creating a cemented 'dome' to prevent dislocation of the cement spacer is completed using high viscosity cement and augmenting with 6.5mm lag-cement cortical screws to engage the native bone. This is done during working phase of the cement and a stable dome is created to complement the dynamic cemented femur spacer.

Advantages in this are evident during pre and intra op of second stage surgery. Patient is able to ambulate and perform functional movements sans weight bearing in pre-operative state. During intra operative session of second stage surgery restoration of native center of rotation, restoration of global offset, achieving limb length equality and establishing clear zone for augmentation or grafting is relatively easier. Reduction in duration of surgery, eases reducibility and significant reduction in soft

tissue release thus contributing to better pain control.

Figure 1: Left dynamic hip spacer with 'cemented dome'



CONCLUSION:

'Cemented Dome Hip spacer is the way forward in first stage reconstruction surgeries in this era of hip revision. The benefits significantly outweigh the static spacer in functional and surgical outcome.

REFERENCES:

1. Craig et al., EFFORT Open Reviews 2022, p137-152