

Brief Communication

“Eggcup” Method of Harvesting Morsellized Bone From the Femoral Head

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Abstract: Obtaining morsellized bone-graft from femoral heads can be a slow and tedious procedure. An alternative quick technique requiring a minimum of specialized equipment is described. **Key words:** femoral head allograft, harvest, revision hip arthroplasty, bone-grafting.

The use of morsellized allograft to fill bone defects is a well-established and extremely useful technique in the reconstruction of bone stock deficiency during revision arthroplasty surgery. Some special techniques such as impaction bone-grafting [1] require large amounts of allograft to be prepared. This can be a slow and laborious procedure, involving first the stripping of the femoral head of articular cartilage and subchondral bone with either nibblers or an oscillating saw, followed by the sawing of the prepared femoral head into sections that are finally morsellized using a bone mill. The method presented here provides a quick alternative, eliminating the need for debridement and milling.

Technique

The femoral head is placed upright in the Allogrip bone vise (DePuy, Warsaw, IN, Model 5425-10) and the apex of the head is removed with a horizontal cut from an oscillating saw (Figs. 1, 2). A 38- to 42-mm acetabular reamer is then used to harvest the cancellous bone from the center of the head (Fig. 3), leaving an outer shell of articular cartilage and subchondral bone. We have found that it is easier to start by using the side of the reamer. The bone removed from the reamer is then ready for grafting (Fig. 4).

Summary

We have found this technique to be a very quick and reliable method of harvesting copious bone-graft that is free of articular cartilage and uniformly morsellized. This technique is also very economical, using all of the available cancellous bone in the femoral head and obviating the need for an expensive bone mill. The only extra equipment needed apart from that which would normally be available at most hospitals is an Allogrip bone vise.

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Fig. 1. Resection of the apex of the femoral head.



Fig. 3. Reaming of the femoral head.

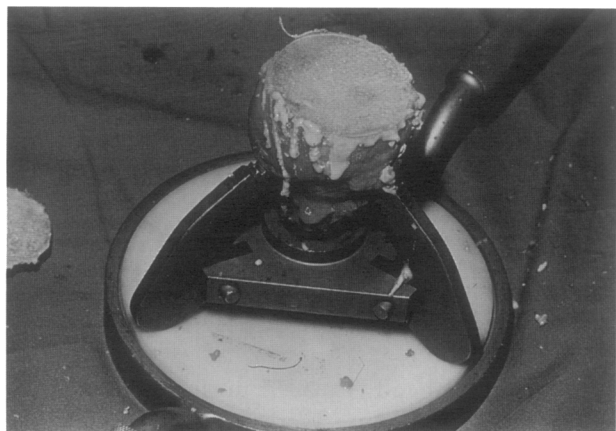


Fig. 2. Femoral head ready for reaming.



Fig. 4. Morsellized bone ready for grafting.

Reference

1. Gie GA, Linder L, Ling RS et al: Impacted cancellous allografts and cement for revision total hip arthroplasty. *J Bone Joint Surg* 75B:1, 1993