

### ACETABULAR REVISION ARTHROPLASTY

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Total hip arthroplasty has revolutionized the care of arthritic patients suffering from the severe pain and functional disability that accompanies end-stage degenerative processes of the hip.<sup>1,2</sup> In 1997–1998, 19 000 total hip replacements were performed in Canada (Canadian Institute for Health Information: personal communication, 2000). Inevitably, some total hip replacements fail owing to such factors as infection, wear, loosening, dislocation and trauma.<sup>3</sup> The actual burden of revision total hip arthroplasties is poorly understood because diagnostic codes do not separate primary and revision total hip replacements or the side of the operation. Revision rates vary but are estimated to represent 6% to 12% of all total hip replacements performed in a given year.<sup>4</sup> With the aging Canadian population, the number of revision total hip arthroplasties required is expected to increase. It is against this backdrop that 2 timely papers by Jain and associates appear in this issue. They deal with the important issue of acetabular revision arthroplasty.

In the article on cementless acetabular revision arthroplasty (see page 269), the authors investigated potential predictors of function after this procedure.<sup>5,6</sup> Despite shortcomings in terms of a relatively small number of acetabular revisions (41), a retrospective methodology, only a 67% partici-

pation rate and relatively short-term follow-up (mean 3.4 years), the authors found that aseptic acetabular loosening was the commonest mode of failure (73%), supplementary screw fixation of the metal acetabular shell was often needed (42%) and morcellized allograft bone was frequently required (24%). The procedure was less successful in female and elderly patients, possibly because of poor bone stock. Complications were common (20%). Hip-specific and general health outcomes were inferior to those achieved by primary total hip arthroplasty. Radiographic radiolucencies were present in almost a quarter of revisions, suggesting poorer cementless fixation than in primary total hip arthroplasties. Further studies of this important topic were suggested.

For their study on functional outcomes after acetabular revision with reinforcement roof rings (see page 276), the authors used a similar methodology in more difficult acetabular revisions with severe bone stock deficiency, requiring reinforcement rings.<sup>5,7,8</sup> Twenty-four (71%) of 34 eligible patients agreed to participate in this retrospective study. Most patients (75%) were women, and an initial diagnosis of osteoarthritis and aseptic loosening was the principal reason for revision arthroplasty. Disease-specific and most global health parameters were poorer than in the simpler ac-

etabular revisions reported in the first article. Complications were more frequent (46%). One reinforcement ring loosened, requiring revision.

In summary, these 2 papers highlight the need for more research in the field of revision total hip arthroplasty. Efforts must be made to minimize the patient, surgical and implant factors that contribute to implant failure and the need for revision total hip arthroplasty. National registries and the stepwise introduction of new implant devices have been demonstrated to be an effective strategy in this regard.<sup>1,4,9</sup> Finally, much remains to be done in defining techniques to maximize outcomes after revision total hip arthroplasty.

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## SESAP Question / Question SESAP

### CATEGORY 10, ITEM 11

For a patient with the degree of angiographic stenosis shown (1.1-mm opening at the stenosis, 3.7-mm distal internal carotid artery), which of the following statements is TRUE?

- (A) If the patient is asymptomatic, operation will decrease the five-year risk of ipsilateral stroke from 21% to 5%
- (B) If the patient is asymptomatic, operation and aspirin are equivalent therapies
- (C) If the patient is asymptomatic, this degree of carotid stenosis has not been associated with a significant decrease in the risk of postoperative stroke
- (D) If the patient is symptomatic, operation will decrease the two-year risk of ipsilateral stroke from 26% to 9%
- (E) If the patient is symptomatic, operation is not useful with this degree of stenosis



For the question above select the 1 correct answer out of the 5 given.

For the critique of item 11, see page 268.

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