Most hip replacement surgeons would be happy with an overall dislocation rate of 0.6% in their primary hip replacement patients and in studying this paper, the reader is immediately attracted by the simplicity of the technique described. What is more, any individual surgeon personally carrying out 1000 hip replacements over a three year period is likely to have something useful to say on the subject!

It is widely recognised that there are many potential causes of hip instability after arthroplasty but whereas satisfactory acetabular component orientation is no guarantee of success, a maloriented component is far more likely to be associated with dislocation and as such, is one of the more common causes of recurrent dislocation.

A simple, reliable, reproducible and easily applied technique, as described in this paper, using the transverse acetabular ligament (which as reported can almost always be clearly identified) to orientate the acetabular component has considerable appeal, therefore.

The technique described orientates the acetabular component with the patient’s own (anatomical) acetabulum (particularly anteversion), rather than relying on external reference (patient positioning) for pelvic reference and the results speak for themselves. It is likely to be increasingly relevant if the average size of hip replacement patients continues to increase, making identification of bony landmarks increasingly difficult.

That said, there is no perfect answer to this problem (nor paper to expound it) and so what are the weaknesses here?

Well first of all, to what degree are the outcomes reported here directly attributable to the technique described?

This is a little difficult to answer. The authors have used the posterolateral approach (standard and mini) and a 28mm head, with 973 out of 1000 cases, a neutral liner in an uncemented shell, but there is no comparative group using an alternative technique, for example an angled jig on the cup introducer, to prove that it is specifically the technique described which achieves the results that they obtained.

What of the repair? Ethibond is an extremely powerful suture and as part of a per-osseous repair ought in itself to provide considerable protection against posterior dislocation. Again, there is no comparative data in this paper, using a less robust posterior reconstruction, to demonstrate that it is again the accuracy of acetabular component orientation that has conferred such a high degree of stability in the study group patients.

Most surgeons make an assessment of hip stability during surgery, after implantation of the components. Accepting the inherent imprecision of the method, it does none-the-less provide a useful indicator of stability and more importantly instability. Given the very satisfactory results reported in this paper, it would have been interesting to know roughly what range of congruent movement was associated with functional stability.

In this context, dislocation must be considered a rather crude end-point, as lesser degrees of subluxation may go unnoticed and/or unreported. Of course from a patient’s perspective, subluxation represents a much less important morbidity than dislocation. The difference between the two however, may just be the strength of the posterior repair.

The minimum follow-up in this study was eight months and the results are described as preliminary. It will be interesting to re-visit these results in the longer term. In addition, it will be interesting to apply the technique to a wider range of prostheses with alternative head and neck sizes.

Historically, the posterolateral approach has been associated with a higher incidence of dislocation than lateral and anterolateral approaches; perhaps because component orientation is more critical and because bending and sitting, when most posterior dislocations occur, are such common movements. Certainly, posterior capsular repair has not invariably been performed in the past and a transosseous repair has helped further. Exponents of the posterolateral approach point to more rapid rehabilitation (the mean post-operative stay in this study was 4.2 days) and possibly better long-term results when the glutei are left intact. Abductor dehiscence ceases to be an issue.

As always, the ability of others to import the described technique in a reliable, reproducible and effective way, is important to its wider application but the simplicity and ease of application of this particular technique will appeal to many. The paper is concise and well written, and contains a clear description of the surgical technique.

Figures such as those reported here suggest that the posterolateral approach can be carried out with a dislocation...
rate equal to or less than those of reported lateral and anterolateral approaches, using a technique which is applicable to the vast majority of cases.

Perhaps we can now consider the posterolateral approach the entrance for the craftsman rather than the tradesman!

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