When hip arthroscopy fails to preserve hip: A qualitative and quantitative study of options and patient satisfaction

Authors

Luciano Agnello¹, Linda Pomeroy², Richard Villar¹, Ali Bajwa¹

¹Villar Bajwa Practice, Cambridge, UK
²University College, London, UK
Dr Luciano Agnello

I have no financial relationship to disclose
BACKGROUND

Hip arthroscopy aims to achieve symptom-relief and potentially hip preservation. However, there are instances of failure in active patients. We explore the options and patient satisfaction by triangulating data methods.

AIMS

The aim of the current study was to explore the patient perception on resurfacing hip arthroplasty (RHA) and mini-hip arthroplasty (MHA) in a unique cohort where each patient has received a resurfacing on one side and a mini-hip on the contralateral side using both quantitative and qualitative measures after failed hip arthroscopy (Fig. 1).

MATERIALS AND METHODS

We identified patients in our Practice database that had undergone RHA on one side and MHA in the opposite hip. All prostheses were implanted by two experienced surgeons using a posterior approach and followed a standard anaesthetic protocol, post-operative care and rehabilitation guidelines. The patients received Cormet 2000 hip resurfacing and MiniHip (Corin®, Ciencester, UK) implants. Data were collected pre-operatively and post-operatively at weeks 6, 12, 26 52 and annually thereafter. The data included demographic details, mHHS (modified Harris Hip Score), patient satisfaction and a qualitative semi-structured interview. Data analysis was done using both quantitative (descriptive statistics, student’s t-test) and qualitative (constant comparative method of grounded theory).

RESULTS

There were 24 hips in 12 patients with mean age of 63.6 years (range 42,81) and a mean follow-up of 5.3 (SD 4.2, range 2,9). The mean mHHS in pre-operative and one-year post-operative period for RHA was 50.9 (SD 22.9, range 9,71) and 82.6 (SD 11.2, range 67,91) respectively with a mean improvement of 32.9. The mean mHHS in pre-operative and one-year post-operative period for MHA was 47.83 (SD 14.6, range 20,62) and 83.2 (SD 27.3 range 53,94) respectively with mean improvement of 35.3. There was no significant difference in mHHS in the two groups (p=0.26). However, the qualitative analysis showed that a patient’s perception of improvement did not always reflect the validated score improvement such as in mHHS. In 8/24 of arthroplasty cases the mHHS indicated a high return to functionality, however, interview highlighted perception of a reduction in certain aspects such as range of movement and ability to perform at a high-level such as competitive windsurfing (2/24), skiing (6/24) or martial arts (2/24). The results, therefore, suggest that the quantitative data is not sensitive enough to deduce return to function in a specialised subset of patients. The interviews indicate a marginal preference for resurfacing due to improved stability. However, the differential to the satisfaction with the mini hip was not sufficient for the potential metal ion problem to be ignored and therefore mini hip was shown to offer a reasonable bone-conserving alternative.

CONCLUSION

Results indicate that after failed hip arthroscopy RHA and MHA both offer viable options. The former offers marginally better qualitative results although when the metal ion problem is taken into account the MHA can offer sufficient function and satisfaction as an alternative.
References

Is the length of the femoral component important in primary total hip replacement?
Feen H1, Shimmin AJ.

Orthopedics. 2013 Sep;36(9):700-7.
Outcomes of short stems in total hip arthroplasty.
Banerjee S, Pivec R, Issa K, Harwin SF, Mont MA, Khanuja HS.

A systematic review of patient reported outcomes and patient experience in enhanced recovery after orthopaedic surgery.
Jones EL1, Wainwright TW, Foster JD, Smith JR, Middleton RG, Francis NK.

Long-term clinical consequences of stress-shielding after total hip arthroplasty without cement.
Bugbee WD1, Culpepper WJ 2nd, Engh CA Jr, Engh CA Sr.

Metal ion levels and functional results following resurfacing hip arthroplasty versus conventional small-diameter metal-on-metal total hip arthroplasty; a 3 to 5 year follow-up of a randomized controlled trial.
Bisseling P, Smolders JM, Hol A, van Susante JL.