Reply to Letter to Editor

THA with the ABG I Prosthesis at 15 Years: Excellent Survival with Minimal Osteolysis

Paul Baker MRCS, MSc, Ian McMurtry FRCS,
Andrew Port FRCS

Published online: 3 February 2010
© The Association of Bone and Joint Surgeons® 2010

We agree with the comments made by Dr. Gallo. The literature relating to this prosthesis is contradictory, with significant variation in the rates of implant survival, periacetabular osteolysis, and polyethylene wear. Numerous reports mirror Dr. Gallo's experience of poor outcomes with this implant. Unfortunately we cannot offer additional insight regarding reasons why our results are better than those previously published.

There is increasing evidence in relation to hard bearing surfaces that surgical technique and correct cup placement are more important than previously thought [1, 3]. It seems likely that these factors plus cup diameter/polyethylene thickness and polyethylene quality also will influence outcomes in other prostheses using conventional bearings. Recently Gallo et al. [2] suggested the position of the cup relative to Kohler's line, increasing abduction angle of the cup, traumatic and inflammatory arthritis as a primary diagnosis, and patient weight all influence the rate of wear of the ABG I cup. Unlike that study, we did not see any relationship between cup abduction angle and polyethylene wear and unfortunately were unable to record these other determinants for our patient population. We also were unable to determine either the polyethylene thicknesses or

the self lives and manufacturing batches of the polyethylene used in our series that may have been a marker of polyethylene quality.

There is wide variation in reported details for surgical technique, surgeon numbers, bearing materials, and cup position for the ABG I. Missing information and the heterogeneity for the reports make it difficult to draw any direct comparison between series. What remains clear, however, is that the patients in whom an ABG I prosthesis has been implanted should continue to be closely monitored.

References

1. Angadji A, Royle M, Collins SN, Shelton JC. Influence of cup orientation on the wear performance of metal-on-metal hip replacements. *Proc Inst Mech Eng H*. 2009;223:449–457.
2. Gallo J, Havranek V, Zapletalova J. Risk factors for accelerated polyethylene wear and osteolysis in ABG I total hip arthroplasty. *Int Orthop*. 2010;34:19–26.
3. Langton DJ, Jameson SS, Joyce TJ, Webb J, Nargol AV. The effect of component size and orientation on the concentrations of metal ions after resurfacing arthroplasty of the hip. *J Bone Joint Surg Br*. 2008;90:1143–1151.

P. Baker (✉), I. McMurtry, A. Port
Department of Trauma and Orthopaedics, James Cook
University Hospital, Ward 36, Middlesbrough,
Teesside TS4 3BW, UK
e-mail: drpnbaker@hotmail.com