

## The concept of combined component position in total hip arthroplasty

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Sir,

We read this article with interest. In it, Barsoum et al studied the optimum position for placement of the components using a three-dimensional computer model to simulate impingement. One of the main consequences of impingement is instability. The authors describe the concept of combined component position, in which anteversion and abduction of the acetabular component, along with femoral anteversion, are all defined as critical elements for stability.

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[Email](#) Brigitte M Jolles,  
et al.

It is regrettable that the authors were unable to reference our paper entitled, "Factors predisposing to dislocation after primary total hip arthroplasty: a multivariate analysis."<sup>1</sup> We conducted this study to determine the relative influence of various mechanical and patient-related factors on the incidence of dislocation after primary total hip arthroplasty (THA). Of 2,023 THAs, 21 patients who had at least one dislocation were compared with a control group of 21 patients without dislocation, matched for age, gender, pathology, and year of surgery. Implant positioning, seniority of the surgeon, American Society of Anesthesiologists (ASA) score, and diminished motor coordination were recorded. We observed that the dislocation risk was 6.9 times higher if the sum of the cup and stem anteversion was not between 40° and 60°, and concluded that surgeons should pay attention to the total anteversion (cup and stem) when performing a THA.

In addition, as referenced in Table 1 of our article,<sup>1</sup> the concept of total anteversion is also presented in a textbook.<sup>2</sup>

The concept of combined component position as a critical element for stability had already been introduced. However, we are happy to see that the authors were able to add a new scientific element to this field.

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**1. Jolles BM, Zangger P, Leyvraz PF.** Factors predisposing to dislocation after primary total hip arthroplasty: a multivariate analysis. *J Arthroplasty* 2002;17:282-8.

**2. Ranawat CS, Maynard MJ, Deshmukh RG.** Cemented primary total hip arthroplasty. In: Sledge C, ed. *Master techniques in orthopaedic surgery: the hip*. Philadelphia: Lippincott-Raven, 1998:217-38.