Comment on Langlois et al.: Charnley-Kerboull total hip arthroplasty combining zirconia on polyethylene. A minimum eight-year follow-up prospective study

Yuan Zhang · Fuxing Pei

Received: 5 April 2013 / Accepted: 1 May 2013 / Published online: 22 May 2013
© Springer-Verlag Berlin Heidelberg 2013

To the Editor,

We read the article entitled “Charnley-Kerboull total hip arthroplasty combining zirconia on polyethylene. A minimum eight-year follow-up prospective study” by Langlois et al. [1] with great interest.

We appreciate this follow-up study in which the authors performed an open prospective clinical trial involving 51 consecutive patients (55 hips) with Charnley-Kerboull all-cemented hip arthroplasty. Their study confirms earlier short-term results, and demonstrates that zirconia should no longer be used in total hip arthroplasty. There are three queries which we would like to refer to the authors.

1. The authors started their radiological evaluations at six weeks after the total hip arthroplasty. This means that the first radiograph they used for analysis was the one carried out 1.5 months after the primary total hip arthroplasty. If earlier postoperative radiographs could be available, for example, in the first day after the surgery, then a more precise calculation of linear polyethylene wear rate could be obtained.
2. In the Results section, the authors use a parameter of mean linear penetration rate to describe wear and tear of prosthesis. However, we consider that both the mean linear polyethylene wear rate and mean volumetric

polyethylene wear rate are important to evaluate the wear results [2]. Therefore, we would like to know the reason why the authors just chose the former for all analyses.

3. In Fig. 3, the radiograph made at 121-month follow-up shows continuous radiolucency at the bone–cement interface, distal lateral shift of the stem. The authors told us that some patients suffered from thigh pain. As we know, severe thigh pain is one of the important symptoms which leads to revision surgery [3]. However, the description of thigh pain was not mentioned in other parts of the article. So, we would like to make an enquiry about thigh pain incidence of patients in this follow-up study.

We agree with the authors that in vitro results of a material should be projected with extreme caution to its in vivo behaviour.

References

1. Langlois J, El Hage S, Madi F et al (2013) Charnley-Kerboull total hip arthroplasty combining zirconia on polyethylene. A minimum eight-year follow-up prospective study. *Int Orthop* 37(3):355–360
2. Takenaga RK, Callaghan JJ, Bedard NA et al (2012) Cementless total hip arthroplasty in patients fifty years of age or younger: a minimum ten-year follow-up. *J Bone Joint Surg Am* 94(23):2153–2159
3. Cinotti G, Della Rocca A, Sessa P et al (2013) Thigh pain, subsidence and survival using a short cementless femoral stem with pure metaphyseal fixation at minimum 9-year follow-up. *Orthop Traumatol Surg Res* 99(1):30–36

Y. Zhang · F. Pei (✉)

Department of Orthopaedic Surgery, West China Hospital of Sichuan University, Chengdu 610041, People's Republic of China
e-mail: peifuxing@163.com