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LETTER TO THE EDITOR

Letter to the Editor: Cemented versus uncemented hemiarthroplasty for femoral neck fractures in patients with neuromuscular diseases: a minimum of 2 years' follow-up study

Wang Xing, Huang Qiang* and Pei Fuxing

Dear Editor,

Recently, I read with great interest the study entitled "Cemented versus uncemented hemiarthroplasty for femoral neck fractures in patients with neuromuscular diseases: a minimum of 2 years' follow-up study" by Wang et al. [1] The following concerns need to be explained cautiously.

First, authors did not mention the time points and frequency of pain evaluation. The same problem existed with Harris hip score (HHS). Authors found the intraoperative blood loss were less in the uncemented group. However, they did not mention how was intraoperative blood loss medical calculated? Furthermore, authors reported that although the between-group difference was not statistically significant, they found that the uncemented group was associated with higher risk of postoperative periprosthetic fracture. In addition to bone density, periprosthetic fractures are generally related to either inexperienced surgeons or inadequate surgical technique. However, they did not mention were all surgeries performed by same surgeon with standard procedure? If there is a difference between the two groups, it will have a certain impact on the effect of surgery and complications.

Second, the authors concluded that intraoperative death almost exclusively occurred during cemented procedures, which may be caused by the Bone cement implantation syndrome (BCIS), but no intraoperative death was found in this study, which showed that the use of cement has no detrimental effect on the short- and mid-term mortality in patients with neuromuscular diseases. However, BCIS is rare, and so historically controlled comparative studies are difficult, because the infrequency of the event makes it hard to compare risk factors relevant to the condition. However, large national databases have given us populations to perform reliable statistical analyses [2]. In a study of more than 11,000 patients with hip fracture, they found use of cement to be independently associated with an increased risk of death on the day of surgery and the following day. When ASA increased from 1 or 2 to 3 or 4, the number needed to harm (to cause 1 death from cementation) rose from 1 of 811 patients to 1 of 33 operated patients [2]. About 60% of these early fatalities were directly attributed to bone cement [3]. Thus, the key to avoiding cement-related deaths during or soon after hemiarthroplasty surgery for hip fracture is for the surgeon to choose an uncemented implant.

* Correspondence: huangqiang4325@126.com
The work was performed in Department of Orthopaedic Surgery, West China Hospital, Sichuan University.
Department of Orthopaedic Surgery, West China Hospital, Sichuan University, No. 37, Guoxue Road, Wuhou district, Chengdu 610041, Sichuan, People's Republic of China

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Availability of data and materials
Not applicable.

Declarations

Ethics approval and consent to participate
Not applicable.

Consent for publication
Not applicable.

Competing interests
The authors declare that they have no competing interests.

References
1. Wang Y, Wang Z, Tian S, et al. Cemented versus uncemented hemiarthroplasty for femoral neck fractures in patients with neuromuscular diseases: a minimum of 2 years' follow-up study. J Orthop Surg Res. 2021; 16(1):418.
2. Talsnes O, Vinje T, Gjertsen JE, et al. Perioperative mortality in hip fracture patients treated with cemented and uncemented hemiprosthesis: a register study of 11,210 patients. Int Orthop. 2013;37(6):1135–40.
3. Pripp AH, Talsnes O, Reikerås O, Engesæter LB, Dahl OE. The proportion of perioperative mortalities attributed to cemented implantation in hip fracture patients treated by hemiarthroplasty. Hip Int. 2014;24(4):363–8.

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