LETTER TO THE EDITOR

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Dear Editor-in-Chief

It was with great interest and some reservation that I read the article by Dr Elhadi entitled 'Unstable intertrochanteric fracture in elderly patients: outcome of primary cemented bipolar hemiarthroplasty versus internal fixation' on page 22 in the November 2018 issue of the *South African Orthopaedic Journal*.

The authors set out to compare the outcome of internal fixation to primary cemented bipolar hemiarthroplasty in elderly patients with unstable intertrochanteric fractures through a prospective study. The study cohort consisted of patients over the age of 65 years who sustained unstable intertrochanteric fractures. The authors reviewed the outcomes of these injuries treated by either a dynamic hip screw construct or dual lag screw recon type nails (grouped together as internal fixation) or cemented bipolar hemiarthroplasty.

At one-year follow-up, the study found more mechanical complications in the internal fixation group and that the hemiarthroplasty group had better Harris Hip Scores, and concluded that cemented bipolar hemiarthroplasty was superior to internal fixation in this population group. It is with this generalised statement that I have some concern.

All fixation devices for proximal femoral fractures are not equal and can definitely not be grouped together as 'internal fixation'. Although some controversy still remains in the literature, most trauma surgeons would agree that unstable intertrochanteric fractures should probably be treated with an inlay device. This is supported by a recent prospective review of 3 230 unstable intertrochanteric femur fractures that found that these injuries are better treated with a cephalo-medullary nail compared to a sliding hip screw.[1]

The introduction of newer fourth generation dedicated proximal femur fixation nails also complicate the discussion further. These devices provide better fixation and fewer complications than earlier nail designs with 'recon' locking options. When these fixation devices are compared to hemiarthroplasty, the difference is less pronounced, as shown in a 2017 meta-analysis by Nie *et al*.[2]

I would therefore caution readers against the routine use of technically demanding arthroplasty surgery for intertrochanteric femur fractures when modern proximal femur fixation options are available.

References

1. Tucker A, Donnelly KJ, Rowan C, McDonald S, Foster AP. Is the best plate a nail? A review of 3230 unstable intertrochanteric fractures of the proximal femur. *J Orthop Trauma*. 2018;**32**(2):53-60.
2. Nie B, Wu D, Yang Z, Liu Q. Comparison of intramedullary fixation and arthroplasty for the treatment of intertrochanteric hip fractures in the elderly: A meta-analysis. *Medicine* (Baltimore). 2017;**96**(27):e7446.