Valgus intertrochanteric osteotomy with single-angled 130° plate fixation for fractures and non-unions of the femoral neck: reply to Aditya N. Aggarwal and Anil Agarwal

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Received: 12 January 2010 / Published online: 4 February 2010
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Dear Editor,

We would like to thank Dr. Aditya N. Aggarwal and Dr. Anil Agarwal for their interest in our recently published article [1], and we thank you for the opportunity to reply. As evident from our article, the patients selected for valgus osteotomy in recent femoral neck fractures are those with vertical fractures. Their preoperative fracture angle ranged from 55 to 75° (average 64°). We appreciate the concerns raised by Dr. Aditya N. Aggarwal and Dr. Anil Agarwal about the use of angled blade plates in fixation of recent fractures. We described in our article the technique of valgus osteotomy and the advantages of fixation using a single-angled 130° plate. We think that reclining of the vertical fracture plane, after fracture reduction, will convert the shear forces into compression forces and this will enhance fracture union. The resultant of the compressive forces at the hip subtends an angle of 25° with the anatomical axis of the femur. If the fracture plane is

reclined to subtend this angle with the perpendicular to the anatomical axis of the femur, it is under pure compression [2, 3]. Introduction of the blade into the head by hammering helps in initial compression of the fracture. Addition of a lag screw proximal to the blade was optional in our patients with recent fractures and was not mandatory in all patients.

References

1. Said GZ, Farouk O, Said HGZ (2009) Valgus intertrochanteric osteotomy with single-angled 130° plate fixation for fractures and non-unions of the femoral neck. *Int Orthop*. doi:10.1007/s00264-009-0885-z
2. Müller ME, Allgower M, Schneider R, Willenegger H (1979) *Manual of internal fixation: techniques recommended by AO Group*, 2nd edn. Berlin, Springer, pp 360–365
3. Müller ME (1984) Intertrochanteric osteotomies: indications, proper planning and technique. In: Schatzker J (ed) *The intertrochanteric osteotomy*. Springer, Berlin, pp 25–26

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