Comment on Lan et al.: S-osteotomy with lengthening and then nailing compared with traditional Ilizarov method

Abhay Elhence · Divesh Jalan · Harish Talreja

Received: 13 November 2013 / Accepted: 26 November 2013 / Published online: 18 December 2013
© Springer-Verlag Berlin Heidelberg 2013

We read the article "S-osteotomy with lengthening and then nailing compared with traditional Ilizarov method" [1] with keen interest. We would like to congratulate the authors for publishing one of the largest case series on limb lengthening in patients with constitutional short stature. However, we would like to put forward certain concerns regarding this study.

1. The authors have used very small incisions (0.8–1 cm) to perform longitudinal osteotomy of sizes 8–15 cm for lengthening of 6–13 cm; however, it is difficult to understand such long osteotomies with a mini-incision [2]. We would appreciate if the authors could explain the details of the procedure as well as provide some clinical photographs to show the mini-incision approach.
2. The authors have mentioned that they have introduced an intramedullary nail without removing the external fixator to avoid destabilizing the fixation. We would be keen to know how a size 9 intramedullary nail could be introduced into the medullary canal of a constitutionally short stature patient after over-reaming by 2 mm with the external fixator frame in-situ.
3. We agree with the authors that the procedure has the advantages of decreased consolidation time, pin tract problems and axial deviation. However, this procedure would require three surgical interventions viz. osteotomy and ring fixation, insertion of nail and removal of ring

fixator and finally removal of nail, instead of two in the conventional method. Also, the intramedullary nailing poses a great risk for deep infection and complications related to nail and screw breakage [3], even though the authors did not encounter any in their case series.

4. The authors did not find any limb-length discrepancy in the present series. As all the lengthenings were bilateral, we would be interested to know how the authors managed to achieve perfect limb-length equalization in such a large cohort of patients. Also, as the authors have used joint spanning fixators, we would like to know whether any special post-operative protocol was followed to prevent residual ankle stiffness.

References

1. Lan X, Zhang L, Tang P, Xi H, Li G, Peng A, Han Y, Yuan B, Xu W (2013) S-osteotomy with lengthening and then nailing compared with traditional Ilizarov method. *Int Orthop* 37(10):1995–2000
2. Al-Saati MF, Magnussen RA, Lustig S, Testa R, Al-Saati G, Al-Saati F (2012) Distraction osteogenesis using a longitudinal corticotomy. *Int Orthop* 36(5):1073–1077
3. Kristiansen LP, Steen H (1999) Lengthening of the tibia over an intramedullary nail, using the Ilizarov external fixator. Major complications and slow consolidation in 9 lengthenings. *Acta Orthop Scan* 70(3):271–274

A. Elhence · D. Jalan · H. Talreja (✉)
Department of Orthopaedics, All India Institute of Medical Sciences,
Jodhpur, India
e-mail: talreja.harish84@gmail.com