

Supracondylar Wedge-less “V-” Shaped Osteotomy for the Correction of Genu Valgum Deformity

Dear Editor,

We read with great interest the article by Jaiman *et al.*,^[1] in which the authors presented a modified supracondylar chevron osteotomy for correction of genu valgum deformity. The technique illustrated by them has essentially been described in the literature by Aglietti *et al.*^[2] and Gupta *et al.*^[3] and termed it as supracondylar wedge-less “V-” shaped osteotomy. We would like to congratulate the authors for conducting this wonderful study.^[1] However, we would like to make the following observations for the benefit of the readership of this journal so that the technique may be employed successfully in constrained resource environment:

1. The peripheral setups may have various constraints in the form of limited availability of intraoperative C-arm image intensifier, sophisticated implants such as anatomically contoured distal medial femoral locking plate, and long metallic goniometers. The authors should have elaborated more on the correct placement of the apex of “V” in the scenario of nonavailability of intraoperative fluoroscopy. In this situation, the operating surgeon should rely on the various surgical landmarks like the presence of a leash of medial epiphyseal vessels which consistently cross the operative field transversely^[3,4] and the apex of “V” should be kept just proximal to these vessels
2. The authors have used an anatomically designed medial distal femur locking plate to fix the corrective osteotomy. However, the availability of this sophisticated implant may be limited in the hospitals working in constrained atmosphere. In addition, this implant is not likely to match the altered anatomy of deformed bone, even after the corrective osteotomy. This fixed angle device is likely to result in improper positioning of plate, tendency of the distal most locking screws to penetrate the joint laterally, and crossing the osteotomy site by the screw (as evident in the postoperative radiograph shown in the article). Such improper positioning of this rigid implant is likely to result in early arthrosis, hardware prominence and delayed union. In our opinion, a low-cost implant like non-locking proximal medial tibial “L” buttress plate serves the purpose very well^[3] and it is readily available in hospitals working under constrained conditions

3. The authors have used sterile metallic goniometer to assess the deformity correction intraoperatively. Alternatively, an operating surgeon can use a long cautery lead which can be manually placed on the sterile drape from center of the hip to the center of ankle joint.^[3] For identifying these anatomical landmarks intraoperatively, a surgeon should place self-adhesive ECG electrodes on the mid-inguinal point before draping and the ankle should be draped with sterile, transparent cling film [Figure 1]
4. The authors have used 4.3 mm, 30 cm long solid drill bit to check the joint line intraoperatively as they inserted it in the knee joint skimming both the femoral condyles. In our opinion, this method is highly unacceptable as such a thick drill bit can cause damage to the articular cartilage apart from possibility of introducing the infection in the joint. If the operating surgeon is following the above-mentioned point number 1 and 2, then this step can altogether be avoided. In selected cases, a smooth long 1.5 mm K-wire can be used, if required.

We hope that these suggestions will be helpful for the operating surgeons, doing correction of genu valgum deformity, working in hospitals with constrained resources.



Figure 1: The clinical assessment of deformity correction with the help of cautery cord

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Conflicts of interest

There are no conflicts of interest.

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