Internal fixation of fractures of both bones forearm: Comparison of locked compression and limited contact dynamic compression plate (Letter 2)

Sir,

We read with great interest the article by Saikia *et al*. entitled "Internal fixation of fractures of both bones forearm: Comparison of locked compression and limited contact dynamic compression plate".[1] We would like to highlight a few important issues regarding this topic:

1. The authors have not mentioned whether any of their patients had osteoporosis and whether the distribution of such patients was equal in both the limited contact dynamic compression plate (LCDCP) and locked compression plate (LCP) groups. Osteoporosis is a major determinant in the final outcome of any fracture and any comparative study should ensure that this confounding factor is taken care of.
2. The authors seem to have mixed two implants and two principles. They mention the use of "bridging technique" and "axial compression." Both principles can be applied to select fracture patterns. Though mentioned in the section Materials and Methods, the authors fail to mention how many cases of "bridging" and "compression" were done in the LCP and LCDCP groups. It would have been more meaningful to compare the two implants when used for either of the two principles, i.e. compression or bridging. Henle *et al*. compared LCP with the LCDCP when used for bridging plate fixation and concluded that the LCP did not demonstrate any superiority over LCDCP in terms of functional or clinical outcomes. Also, implant removal was found to be more problematic in the LCP group which was primarily attributable to cold welding of the screws into the plate.[2] Stevens *et al*. compared the results of LCP and dynamic compression plates (DCPs) when used for simple fracture patterns. They found that fractures that had been compressed united 10 weeks faster than those that were not compressed, regardless of the implant used.[3]
3. The authors have mentioned about formation of callus in this study. They observed that callus formation was more in the LCP group than in the LCDCP group. Callus formation depends on the type of bone healing. Primary (direct) bone healing occurs without visible fracture callus formation and secondary healing shows callus. When the principle of compression is applied, direct bone healing is the result and this can be achieved by either LCP or LCDCP.[4] Perhaps more fractures were taken up for bridging in the LCP group, instead of compression and this fact can account for the authors' observation.
4. It is of paramount importance to take the cost of implant also into account. Addition of locking screws to the construct increases the overall cost of the implant. Most studies conducted so far have failed to demonstrate the superiority of LCP over the LCDCP, when used for either compression or bridging plating.[1,3,5] In view of the higher cost and problems with hardware removal,[2] it would be prudent to restrict the use of LCP for osteoporotic and extensively comminuted forearm bone fractures.

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