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Letter to the Editor

Letter to the Editor concerning Classification of tibia plateau fracture according to the "four-column and nine-segment" by Xiang Yao, Yong Xu, Jishan Yuan, Lei Wang, Xingli Fu, Bin Lv, Shengquan Yang, Sheng Meng. Injury. 2018 (in press)

We have read the article - Classification of tibia plateau fracture according to the "four-column and nine-segment" by Xiang Yao, Yong Xu, Jishan Yuan, Lei Wang, Xingli Fu, Bin Lv, Shengquan Yang, Sheng Meng. Injury.2018 (in press), with great interest [1]. This classification definitely adds to the ever-evolving literature of tibial plateau fractures assessment. Moreover, it attempts to further simplify the understanding of these complex injuries and makes it more comprehensive by incorporating the crucial ligamentous injuries commonly associated with such fractures [2]. We find this classification as a potential alternative for regular use in our clinical practice. However, there are a few queries and suggestions which we have for the authors of this article. We would be grateful if our queries could be answered for a better understanding of this article.

1 The classification is based on a very well described "four columns and nine segments" concept. However, there are occasions when a single fracture line traverses through one or more segments of same or different columns (Fig. 1). We would like to know whether those would be quantifiable as single segment or multiple segment injuries according to the segmental zones involved as per the classification.
2 Although authors have described comminution as a classifying parameter in intermediate column, it has not been included for the medial and lateral columnar segments. We frequently encounter medial and lateral column injuries with coronal split without any comminution, dividing them into simple anterior and posterior segments. However these fractures are far simple to treat than those with extensive comminution of the involved segments. Fig. 2 shows two visibly different fractures that would be classified under same tibial plateau injury index(TPII) i.e mildly comminuted (1 column + 2 segments) under this classification. We feel that addressing segment specific comminution on medial and lateral columns will resolve this.
3 Sometimes, we encounter fractures which extend from intermediate column to either medial or lateral cortices and occasionally, both the cortices, with intact cartilage bearing columns. Fig. 3 shows an example of such case. Now, applying this classification, there are no medial and lateral columnar segments as the cartilage bearing areas are intact. The intermediate column fracture line can be seen crossing all its segments and exiting at both medial and lateral cortices in a T shaped pattern. We find it difficult to use this classification in such a scenario. We feel that minor modifications to the classification would clear this.
4 We also feel that an additional parameter stating non displaced or displaced nature of segments would add more information to the fracture classification and convey the fracture pattern in a better way.

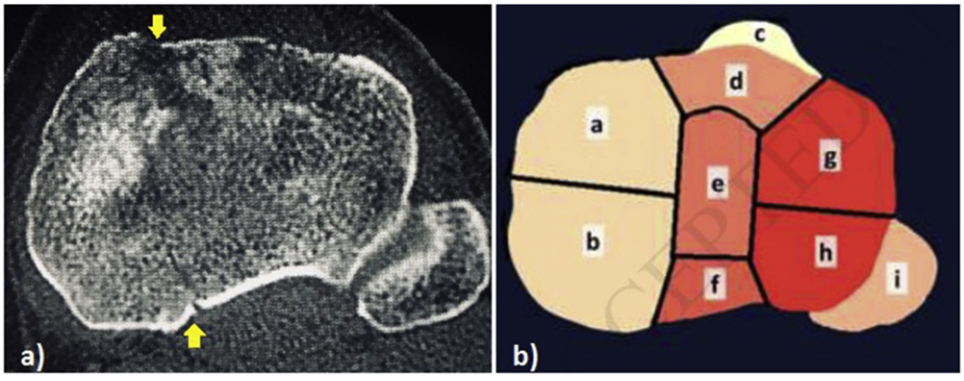

Fig. 1. Comparison of an isolated medial condyle fracture of tibia (a) with the conceptual image used in the described classification (b). There are no clear anteromedial and posteromedial segments as the fracture line traverses anteroposteriorly (arrows). It is difficult to classify this fracture segmentally.

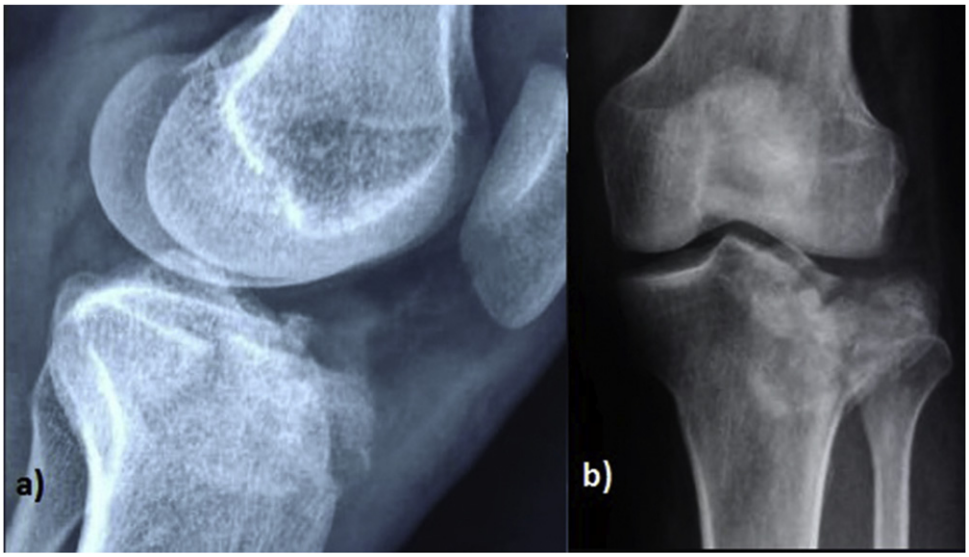

Fig. 2. Two visibly different injuries with regard to the extent of comminution, affecting medial condyle on right and lateral condyle on left. Beacuse of lack of comminution related data both will be called as "mildly comminuted" with TPII = 3 (2 points for 2 segments and 1 point for one column).

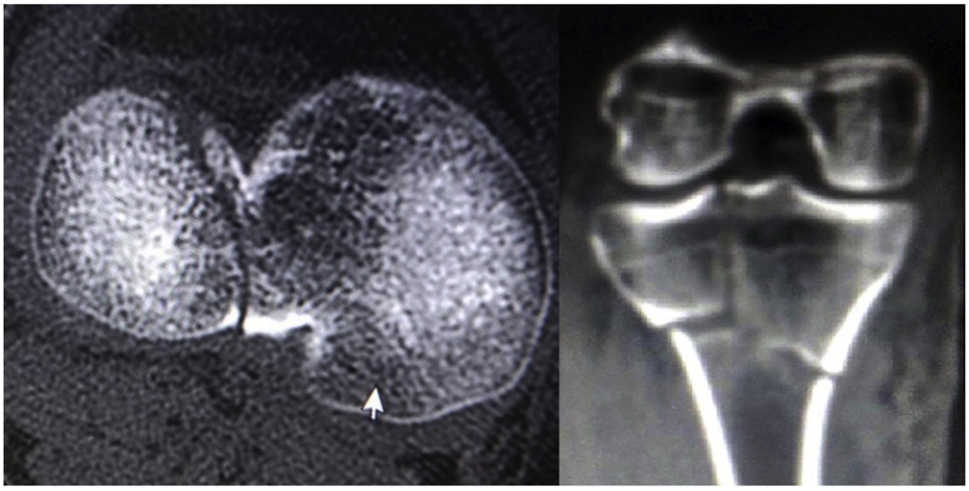

Fig. 3. Coronal and axial CT scan cuts showing bicondylar tibial plateau fracture with minimal displacement. The fracture line spans whole of the intermediate column and exits through medial and lateral cotices without breaching the cartiage bearing areas of medial and lateral colum. The columnar as well as the segmental classification for such a fracture would be difficult.

Conflict of interest

None of the authors have any conflict of interest to declare.

References

[1] Yao X, et al. Classification of tibia plateau fracture according to the "four-column and nine-segment". Injury 2018;49:2275–83.
[2] Delamarter RB, Hohl M, Hopp Jr. E. Ligament injuries associated with tibial plateau fractures. Clin Orthop Relat Res 1990;(250):226–33.

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Letter to the Editor

Letter to the Editor regarding "Proposal for the classification of peri-implant femoral fractures: Retrospective cohort study"

We read with keen interest the recent article by VIdela-Ces et al. [1] and wholeheartedly agree that a distinction between periprosthetic and peri-implant fractures should be made. In addition, we agree that current classifications for periprosthetic fractures are not fully applicable to peri-implant fractures and have inherent deficiencies.

We would like to draw the authors' attention to a similar article by the Singapore Orthopaedic Research Collaborative (SORCE)