Sir,

We read with interest the article entitled, “Comparative study of single lateral locked plating versus double plating in type C bicondylar tibial plateau fractures” published in Indian J Orthop (2015;49:193–8).

We appreciate the effort taken by the authors for conducting this study. However, we have a basic concern with the conclusion drawn by the authors on the basis of this study. The authors conclude that double plating through two incisions resulted in a better limb alignment and joint reduction with an acceptable soft tissue complication rate. The study being a surgeon-specific cohort study may not be able to conclude this adequately. The two groups identified such as SP operated by one group of surgeons and DP operated by another group. The only criteria adopted for some sort of matching between these two groups were that all surgeons who participated in the study had at least 3 years of experience post residency. This may not be adequate and other parameters should have been taken into account while conducting this study. This study draws its conclusions from a database that is purely observational in nature, and this is a major concern. This concern needs to be addressed before formulating conclusions. Conclusions such as the one as arrived at by the authors needed a better study design such as the randomized controlled trial (RCT).

As a result, most surgical research uses retrospective designs, often with a small number of patients. Despite the efforts to design a methodologically sound surgical technique study and perform proper statistical analyses, the results may not accurately reflect the true situation. This is a major concern in observational studies of surgical interventions.

Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflict of interest.

Sunil Kumar Raina, Bhanu Awasthi
Departments of Community Medicine and Orthopedics, Dr. RPGMC, Tanda, Himachal Pradesh, India
Address for correspondence: Dr. Sunil Kumar Raina, Department of Community Medicine, Dr. RPGMC, Tanda, Himachal Pradesh, India. E-mail: ojasrainasunil@yahoo.co.in

References
1. Neogi DS, Trikha V, Mishra KK, Bandekar SM, Yadav CS. Comparative study of single lateral locked plating versus double plating in type C bicondylar tibial plateau fractures. Indian J Orthop 2015;49:193-8.
2. Farrokhyar F, Karanicolas PJ, Thoma A, Simunovic M, Bhandari M, Devereaux PJ, et al. Randomized controlled trials of surgical interventions. Ann Surg 2010;251:409-16.

Author’s reply

Sir,

We thank the authors of the letter for showing keen interest in our article, “Comparative study of single lateral locked plating versus double plating in type C bicondylar tibial plateau fractures.”

We do accept the considerations highlighted by them, saying it is observational study with inherent lacuna. We agree that randomized controlled trials (RCTs) are the most rigorous method of determining whether a cause and effect
relationship exists between treatment and outcome. However, most surgical research takes the form of retrospective case series, often with a small number of patients. Furthermore, surgical treatments are half as likely to be based on RCT evidence, than are medical therapies. There is debate about the feasibility of RCTs for surgical interventions and the superiority of RCTs over non-RCTs or observational designs. In reality, experimental and observational studies contribute complementary evidence. It is important to recognize the value of evidence from non-RCTs evaluating surgical interventions when the conduct of RCTs is impractical or unethical. However, we acknowledge that even in these situations, conclusions drawn from observational studies must be interpreted with caution. The internal validity of surgical trials is often lower than drug trials because the outcomes are dependent on the characteristics of the participating surgeons and settings. Drug trials risk less differential bias in administering an active drug versus placebo to patients; however, surgery is a skilled, multistep process, and this makes the design of RCTs more challenging.

There is a learning process for every new surgical technique, even for a fully trained surgeon. It is during the learning curve process that errors and adverse events are more likely to occur; therefore, treatment of patients between an expert surgeon and one with restricted expertise can compromise the validity of the study. Surgeons are more likely to participate in expertise-based trials because they have the choice of performing their preferred treatment. We agree that differences in methods, skills, and experiences of operative teams (residents, nurses, etc.) in each case can introduce further variation. Examining each of this variable influencing surgery is not practical. We wanted to highlight the results we had seen during the course of our study. It is a relatively big study with big numbers not much in literature and hence can be a valid source of information for the readers of the journal which can be exemplified by the fact that it is the most read and downloaded article of the issue. Finally, our paper is not that the last word about treatment of tibial plateau fractures has been said and we would definitely like to see in future, RCTs published on this subject.

**Financial support and sponsorship**
Nil.

**Conflicts of interest**
There are no conflicts of interest.

**Devdatta Suhas Neogi**1,2, **Vivek Trikha**1, **Kaushal Kant Mishra**1,3, **Shivanand M Bandekar**2, **Chandra Shekhar Yadav**1

1Department of Orthopaedics, All India Institute of Medical Sciences, New Delhi, 2Department of Orthopaedics, Goa Medical College, Bambolim, Goa, 3Primus Hospital, New Delhi, India

**Address for correspondence:** Dr. Chandra Sekhar Yadav, Department of Orthopaedics, All India Institute of Medical Sciences, New Delhi - 110 029, India.
E-mail: aimsoorthodoc@gmail.com

**REFERENCES**

1. Raina SK, Awasthi B, Comparative study of single lateral locked plating versus double plating in type C bicondylar tibial plateau fractures. Indian J Orthop 2016;50:335.
2. Neogi DS, Trikha V, Mishra KK, Bandekar SM, Yadav CS. Comparative study of single lateral locked plating versus double plating in type C bicondylar tibial plateau fractures. Indian J Orthop 2015;49:193-8.
3. Farrokhyar F, Karanikolas PJ, Thoma A, Simunovic M, Bhandari M, Devereaux PJ, et al. Randomized controlled trials of surgical interventions. Ann Surg 2010;251:409-16.
4. Devereaux PJ, Bhandari M, Clarke M, Montori VM, Cook DJ, Yusuf S, et al. Need for expertise based randomised controlled trials. BMJ 2005;330:88.

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

**Access this article online**

| Quick Response Code: | Website: | DOI: |
|---------------------|---------|------|
|                     | www.ijoonline.com | 10.4103/0019-5413.181787 |

**How to cite this article:** Neogi DS, Trikha V, Mishra KK, Bandekar SM, Yadav CS. Author’s reply. Indian J Orthop 2016;50:335-6.