

that the incidence of shoulder pain was significantly lesser in the trocar group also when compared to the control group. There could be some spillage of local anaesthetic in the trocar group, which can explain this fact.

In the results section of the article (1), the sentence ‘group III [control] had more frequent shoulder pain than groups I and II ($p < 0.05$)’ is correct (17 vs. 8 and 6, respectively). Nevertheless, if we compare groups I and II, shoulder pain is slightly lower in the group II (intra-peritoneal) than in the group I (trocar infiltration), i.e. (6 vs. 8). Although this may not be statistically significant, it explains my assessment.

I hope that the authors, reviewers, and editor will agree with my line of thinking.

Kandil et al. (2) observed that the referred pain was significant if the duration of surgery was >45 min. Here, the duration of surgeries among all three groups was ‘comparable’, with $p=0.557$ and the same average of 45 min in all three groups (1). Hence, duration of the surgery cannot be considered as a contributing factor in this study.

References

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Author’s Reply

Re: Comment on: Comparison of Intraabdominal and Trocar Site Local Anaesthetic Infiltration on Postoperative Analgesia After Laparoscopic Cholecystectomy

Dear Editor,

We curiously read Dr. Raghuraman’s comments and positive critiques (1) on our paper entitled “Comparison of Intraabdominal and Trocar Site Local Anaesthetic Infiltration on Postoperative Analgesia After Laparoscopic Cholecystectomy”.

While presenting the results in the article, it is a general practice to give p values as “ $p < 0.05$ ” or “ $p = \dots$ ”. However, our statisticians insisted on presenting the p values such as “ $p < 0.0071$ ”, which are values calculated by Bonferroni correction. Likewise, it is possible to come across with many articles in the literature using Bonferroni correction and presenting p values other than conventional presenta-

tion of p values (2-4). While using non-parametric tests, in the condition if the distribution of the cases are not even, there could be p values are calculated other than conventional p values, to reject the null hypothesis, which can be presented a “ $p < 0.00\dots$ ”. Therefore, instead of using conventional significance levels to reject the null hypothesis, new significance values are calculated. As, non-parametric Bonferroni correction test has been used in this case, the significance values are presented as unconventional way. However, the point should be to make minds clear. Whatever the nomenclature is, it is important to show the values are statistically significant.

The results of the article on shoulder pain demonstrates that number of patients with pain in the group I and group II are statistically lower than group III. So, we can clearly claim that both interventions are effective when compared with control group. However, it has been misinterpreted that the use of intraperitoneal local anaesthetic was less effective in terms of shoulder pain. It is impossible to claim one of the methods is better than the other, but further studies must be provided to clarify the difference between local anaesthetic infiltration or intraperitoneal local anaesthetic infiltration.

It is a truth to claim that shoulder pain is proportional with the duration of laparoscopic surgery. However, shoulder pain can be observed in cases with relatively shorter duration of surgery. In a study by Donmez et al. (5) shoulder pain is observed in 60% of the cases where mean duration of surgery was 35 minutes. Likewise, in the study of Hujung et al. (6), 50% shoulder pain was observed, where the mean duration of laparoscopic surgery was 44 minutes. In our study, mean duration of surgery was 45 minutes and there was shoulder pain in the 60% of the patients which was comparable with the literature.

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