Reply to comments on: Intraoperative injection versus sponge—Applied mitomycin C during trabeculectomy: One - year study

Dear Editor,

First of all, we would like to thank you for showing interest and highlighting certain points in our study on "Intraoperative injection versus Sponge applied Mitomycin C during Trabeculectomy."[1,2]

The present study was designed to evaluate the safety and efficacy of mitomycin C (MMC) injection versus sponge during trabeculectomy.[1] Primary trabeculectomies were performed with MMC during the period of the study. It's a prospective analysis of patients who underwent trabeculectomy with MMC and followed for 1 year, divided in two groups: Group 1—injection (n = 21) and group 2—sponge (n = 21).

It is highly unpredictable to assess the amount of drug (MMC) delivered through sponge than injection. The main drawback of conventional sponge application includes high variability in delivered MMC (estimated to range from 1.9 to 17.3 μg), the variable effect of irrigation at the site of treatment, and premature fibrotic reaction around the bleb that leads to encapsulation of bleb.[3] There are some other concerns with using sponges, including reports of loss and retention of MMC-soaked sponges, damage to conjunctiva during sponge manipulation, and the physical limitation to treating a large area of sclera with sponges.

The advantages of Intraoperative injection are a larger treatment area, precise control on the amount of delivered antimetabolite agent, and there is no border or restriction as to how diffusely one can spread the MMC which may lead to better outcome.[4]

Moreover, it reduces the time of operation and eliminates sponge-related complications. It is well established that the larger the tissue area that comes in contact with MMC, the higher the short- and long-term success of trabeculectomy. To conclude, MMC injection is much better option to assess the amount of drug delivered through the eye.[5-7]

In MMC injection group, we used a 20-μg preparation starting with MMC 0.4 mg/mL, diluting 0.1 mL of MMC (40 μg) in 0.1 mL of lidocaine (1:1, total volume of 0.2 mL). Half of that solution (0.1 mL of MMC: lidocaine [20 μg]) was used for injection. The concentration of MMC used in sponge group was 0.4 mg/mL.[8] Conjunctival peritomy was started after 2 min in both the groups. The peritomy area was irrigated copiously with a balanced salt solution and milking was not performed in both groups.

Since one of the limitations in our study was its small sample size, most types of the glaucoma were primary open-angle glaucoma and angle closure glaucoma. Very few cases were secondary. Identification of the preexisting risk factors was also one of the limitations in our study.

There was no statistically significant difference regarding number of postoperative visits in both groups. Hence, it was not mentioned in our study. 5-FU was not used in both the groups. However, Argon laser suture lysis was performed in

both the groups. The number of interventions in both groups was similar.

In conclusion, injection of MMC may be as safe and as effective as conventional sponge application of MMC with comparable estimated complete treatment success with relatively lower complication rates.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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Access this article online

Quick Response Code:

Website: www.ijo.in

DOI: 10.4103/ijo.IJO_1880_20

Cite this article as: Maheshwari D, Kanduri S, Rengappa R, Kadar MA. Reply to comments on: Intraoperative injection versus sponge—Applied mitomycin C during trabeculectomy: One - year study. Indian J Ophthalmol 2021;69:177-8.