

Commentary: Influence of orientation of the external linear incision created by the 25-gauge trocar and related factors on sclerotomy closure: A clinical and optical coherence tomographic study

The panorama of vitreoretinal surgery has considerably transformed with the advent of microincision vitrectomy surgery (MIVS).^[1] Although the central idea of MIVS was to create a microincision sclerotomy, it never accomplished the goal of being sutureless. In our clinical experience, we advocate the concept of suturing the port site, if needed, to avoid postoperative wound leak and hypotony.^[2] The art of wound construction is the talk of the town in the current scenario of vitreoretinal surgery to avoid untoward complication and even in terms of cosmesis.

The IJO article "Influence of orientation of the external linear incision created by the 25-gauge trocar and related factors on sclerotomy closure: A clinical and optical coherence tomographic study" by Madangopalan *et al.*^[3] highlights an important and underrecognized perspective. They have compared the suture rates and sclerotomy architecture with anterior segment optical coherence tomography in eyes that had circumferentially and radially oriented external incisions in 25-G transconjunctival sutureless vitrectomy (TVS). Better results of sclerotomy approximation with radial trocar incisions were found in the study when compared with circumferential incisions. Furthermore, the superotemporal quadrant remained the prevalent site for sclerotomy closure in the study as it was the favored side of the surgeon and maximum manipulation was done through this port. This observation is germane and relevant. The result reinforces the available evidence that intraoperative scleral deformation does increase the suture rates. They have shown that use of gas or oil tamponade agents lead to less sclerotomy suturing, which might be attributed to the tamponading effect at the sclerotomy site causing physiological closure. This is also supported by the fact that gas- or oil-filled eye prevents the intraocular fluid currents leading to reopening of the breaks.^[4] The author also did not find any difference in suture requirement rates between valved and nonvalved cannulas.^[5] The study did not find any impact of total surgical time on the suture rate which is conflicting with the existing literature.^[6-8]

We feel a prospective randomized study with a larger sample size and longer follow-up would help address the issues of wound remodeling in 25-G sclerotomies. Similarly, a study analyzing only a single type of vitreoretinal surgery will avoid bias.

Finally, this article provides insightful directions for future research. Future studies and discussion among peer groups will enrich the collective academic knowledge and can bring out some new and novel ways of sclerotomy wound construction in the horizon of surgical retina. The author's research is well-appreciated.

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