Two New Uses for the Gentian Violet Marker

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SUMMARY
The surgeon is always seeking ways to facilitate his surgery without compromising the end result. The gentian violet marking pen is a readily available device that can aid the ophthalmologist in dyeing white sutures and aligning the corneoscleral wound to aid in reducing postoperative astigmatism.

The gentian violet marking pen is a simple instrument found in every operating room which may be adapted for use by the ophthalmic surgeon. This marker has been used by myself in two ways:

1. The dyeing of white silk sutures.
2. The marking of the corneoscleral area in a radial fashion prior to making the cataract incision.

The first use eliminates methylene blue which is usually supplied in glass ampoules that are difficult to open and must be handled with care. Sutures are routinely colored using an applicator soaked with the material, and then the silk is coated. With frequent irrigation the blue-colored sutures tend to run over the incision and the rest of the eye and, thus, are less than ideal.

Gentian violet in a handy, disposable pen can be run over the white suture while the silk is in its original package. It is easier for the scrub nurse to judge the amount required to dye the material uniformly. This dye has a much more intense color that is resistant to the saline irrigations. There seems to be a greater affinity of the violet color for the virgin silk as compared to the methylene blue. The sutures do lose their color within 48 hours postoperatively which makes this an ideal method.

The second use is to aid the surgeon in aligning the cut corneoscleral edges in the post-placement of sutures. The surgeon simply makes three radially placed marks across the cornea onto the limbal area at the 12 o’clock and adjacent areas.

The present fiber-tipped pens are somewhat coarse and have a variable ink flow depending upon the manufacturer. These problems may be avoided by making a row of dots instead of a continuous line of dye. It is a great help to have the marks at pre-measured points when planning to insert an intraocular lens. I have personally used the Leiske anterior chamber lens and always place the sutures 8.0 mm apart after marking the 12 o’clock point as well.

I have found that there is less postoperative astigmatism when the radial marks are made. But I am unable to present exact data yet because of the small series and short postsurgical time to date. There has been no excessive reaction nor toxicity found in 25 cases of corneoscleral marking and suture dyeing. Gentian violet is an aniline dye that is nontoxic to most tissues and has been used on the mucous membranes for years.

I trust this novel recommendation for an old friend will assist my fellow ophthalmologists in resolving the annoying problems with dyed sutures and excessive astigmatism. Future definitive studies comparing radially marked and unmarked cataract incisions for residual astigmatism are planned for the near future.

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