

## Needle Track Technique In Strabismus Surgery

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**Abstract :** Introduction: Scleral perforation during the passage of suture needle is a known complication of strabismus surgery. The present study was conducted to evolve a safe and easy technique of passing the suture needle through the sclera. A scleral tunnel was created with a 26-gauge needle through which the suture needle was passed. The rest of the steps of strabismus surgery were carried out as usual. Material and Methods: After taking clearance from the Institutional Ethics Committee, an interventional study was carried out on twenty patients. The scleral tunnel technique was performed on the patients of strabismus after taking written informed consent. Before passing the suture needle through the sclera during strabismus surgery, a tunnel through approximately half the thickness of the sclera was created with the help of a bent 26-gauge needle. The suture needle was then passed through this tunnel. Rest of the steps of the surgery were carried out in the conventional manner. In a control group of same number of patients, the surgery was performed in the conventional method. Both the groups were followed up for any complications. Ease of passing suture and surgeons' satisfaction with the technique was noted on a 10-point Likert scale. Results: None of the patients in either group suffered from any complications. Four surgeons participated in the study. The average Likert scale score of the surgeons for satisfaction with the technique was 4.5 on a scale of 5. The score for ease of passage of suture needle was 5 on a score of 5. Discussion: Scleral perforation during passing the sutures through the sclera is a known complication of strabismus surgery. Incidence reported is 7.8% It occurs due to inappropriate engagement of the scleral tissue or passage of the suture needle along a wrong axis during the process of passing the suture needle. The needle track technique eases the passage of passing the suture needle through the sclera as the engagement of the scleral tissue can be done with greater control with a 26-gauge needle. The surgeons have reported that they are highly satisfied with the technique and they have reported that the technique eased the passage of the suture needle through the sclera.

**Keywords :** suture, scleral tunnel, strabismus, scleral perforation

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