

Rectus muscle plication technique

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Animation for rectus muscle plication



Advantages

- 1-Plication involves far less disruption of the anterior segment circulation and lesser postoperative tissue reaction.
- 2- A lost muscle is less likely with plication, and there is the option of reversibility.
- 3- Apart from preserving the anterior ciliary circulation, plication is particularly recommended in unocular multiple recti surgery where the anterior segment ischemia is of greater concern.
- 4-Less time consuming ,less bloody ,more easy.

Recently, Chaudhuri and Demer have retrospectively compared their series of 22 patients who underwent recession and plication (R&P) with historical controls who had undergone recessions with resections and have found cosmetically acceptable outcomes with a comparable success rate.

Chaudhuri Z, Demer JL. Surgical outcomes following rectus muscle plication: A potentially reversible, vessel-sparing alternative to resection. JAMA Ophthalmol. 2014;132:579–85

An interesting technique of *mini-plication* for rectus muscles in small-angle strabismus is described by Wright

This involved using 6-0 suture applied to the central 3–4 mm of the muscle belly 5 mm posterior to the insertion, which was then passed through the sclera just anterior to the muscle insertion, to plicate the central portion of the muscle.

Thus, compared to the standard procedure, this did not involve plicating the entire width of the muscle tendon.

Mini-plication reduced vertical and horizontal deviations, an average (\pm SD) of 6.7 PD \pm 3.5 PD. Diplopia which was noted in 50% of the adults preoperatively was not reported postoperatively. All patients experienced a decrease in strabismus, with an average of <5 PD of postoperative deviation.

Leenheer RS, Wright KW. Mini-plication to treat small-angle strabismus: A minimally invasive procedure. J AAPOS. 2012;16:327–30.

