

## **Anterior approach white line advancement for ptosis repair: long term success rates and patient reported outcomes**

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**Aim:** Developed by the senior author (BP), this novel approach to ptosis repair has been performed 549 times to date. The surgical technique involves a skin crease incision and advancement of the white line (underside of aponeurosis at Müller's insertion) without breaching the septum. It is proposed that using this technique retains the advantages of posterior approach surgery without compromising conjunctival integrity. The aim of the present study was to evaluate the long term efficacy and patient satisfaction of this procedure.

**Methods:** Seventy consecutive patients who underwent the described approach for ptosis repair were invited to participate. Surgical success was defined as an upper lid margin – pupillary reflex distance (MRD) of between 2mm and 5mm, with a maximum difference of 1mm between the two eyes and a satisfactory eyelid contour. Levator function and skin crease height were also recorded, with all eyelid measurements graded by three independent assessors, both in clinic and using standardised photographs. The Glasgow Benefit Inventory and a satisfaction questionnaire were used as patient reported outcome measures.

**Results:** Ninety eyelids from fifty-two patients were included in the final analysis. The mean length of follow-up was 2.5 years (1.6 – 4 years). The surgical success rate was 85.4%. Patient satisfaction rates were 94%. There was no relationship between the final lid height and the time from surgery, suggestive of long term stability of this approach to ptosis repair.

**Conclusion:** In this large non-comparative series with a mean follow-up of more than 2 years, the anterior approach white line advancement technique is an effective method of ptosis repair. The outcomes remain stable over time and are highly acceptable to patients. Using this technique, the advantages of posterior approach ptosis repair are retained, without disruption to the conjunctival surface and while offering the possibility of simultaneous blepharoplasty.