THE “SWINGING SCLERA” MODIFICATION OF EVISCERATION: ASSESSMENT OF MOTILITY AND LONG TERM RESULTS

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Introduction: This series assesses long term results and effect on motility of a modified evisceration technique, which employs a full thickness horizontal sclerotomy.

Methods: 21 consecutive patients (14M, 7F; mean age 46 (range 18 to 95 years)) who underwent ocular evisceration (11 right, 10 left) were retrospectively evaluated. For the first 5 patients, videos of postoperative extraocular motility were available and assessed using SiliconCoach Digitizer software. Still photographs in extreme up, down, right and left gaze were also taken in eight patients. Measurements were taken from the photos with a central mark placed on the conjunctiva as reference point. Movements between the operated and non-operated eyes in horizontal and vertical excursion were compared.

Results: Follow-up ranged from 8 to 60 months. Implant size ranged from 16 to 22 mm (mean 19.4 mm). No significant complications were encountered during this period. Based on the five videos, the mean operated to non-operated eye horizontal motility ratio was 0.61 +/- 0.18, and the mean operated to non-operated vertical motility ratio was 0.76 +/- 0.28. From the still photos, the mean operated to non-operated eye horizontal motility ratio was 0.66 +/- 0.15, and the mean operated to non-operated vertical motility ratio was 0.67 +/- 0.16. There was no statistical difference in horizontal and vertical motility from the video or still photo assessment.

Conclusions: Evisceration with a complete horizontal full-thickness sclerotomy is an effective technique that allows for larger orbital implant, while not affecting the implant motility.