

Do We Need to Needle? Clinical Outcomes Following Initial Needling Vs. Medication Following Subconjunctival Gelatin Stent Placement

Nikki A Mehran; Saami J Zakaria; Christopher W Ahmed; Sapna Sinha, MD; Jonathan S. Myers, MD, ABO; Reza Razeghinejad, MD; Marlene R. Moster, MD; Natasha N. Kolomeyer, MD, ABO; Daniel Lee, MD, ABO

Purpose

To evaluate the efficacy of the subconjunctival gel microstent (Xen stent, Allergan) in two groups of patients: 1) those for whom needling was performed before and/or on the same day as antiglaucoma medications (AGM) were added, and 2) those for whom AGM was added prior to needling or without any subsequent needling.

Methods

A retrospective analysis was performed for patients that received a XEN45 implant between January 2017-December 2018. Demographic information, IOP, AGM, needling, and subsequent glaucoma surgeries and procedures were noted. Success was defined as having no subsequent glaucoma surgery, IOP <18 and IOP reduction of >20% from baseline at each respective visit. Patients were grouped as those who underwent bleb needling before and/or on the same day as AGM (Needling group) versus those placed on AGMs either prior to or in the absence of subsequent needling (Meds group). 162 eyes of 144 patients were included. 42 (26%) eyes did not undergo post-op intervention and were excluded.

Results

34 (21%) eyes met criteria for the Needling group. Needling was performed at 70.3±64.5 post-op days. IOP on day of needling was 17.5±7.4 mmHg. Mean IOP was 25.1±7.9 mmHg on 3.1±1.2 AGM at baseline and 15.6±4.5 mmHg on 1.0±1.2 AGM at 6 months (m). 86 (53%) eyes met criteria for the Meds group. AGM were added 66.1±82.9 days post-op. IOP at intervention for Meds group was 16.2±6.6 mmHg. IOP was 24.3±8.2 on 3.0 ±1.1 AGM at baseline and 14.9±5.9 on 1.1±1.2 AGM at 6m. IOP reduction was significantly greater in the Meds group versus the needling group (p<0.05). There was no significant difference in rates of success or further surgery between the Needling and Meds group (p>0.05).

Conclusion

This study shows that while there was no significant difference in success rate or in rate of subsequent surgery for patients who underwent Xen gel microstent placement followed by either needling or placement on AGM, there was a significantly greater decrease in IOP for patients in the Meds group in comparison to the Needling group.