Gonioscopy-Assisted Transluminal Trabeculotomy (GATT) In Uveitic And Steroid Induced Glaucoma: A Novel Treatment.

A Sekaran[1], A Radotra[1], F Mushtaq[1], P Pandey[1], S Sreekantam[1], I Masood[1]

[1] Birmingham and Midland Eye Centre, Sandwell and West Birmingham Hospitals NHS Trust, Birmingham, UK.

BACKGROUND

Uveitis is a challenging inflammatory disorder that is often complicated by secondary glaucoma. High intraocular pressures (IOP) can lead to rapid vision loss, often requiring emergency surgery.

Traditional surgical approaches such as trabeculectomy and aqueous shunts are effective but carry risks. GATT is a micro-invasive glaucoma surgical procedure which is quick and effective with reduced complication rates.

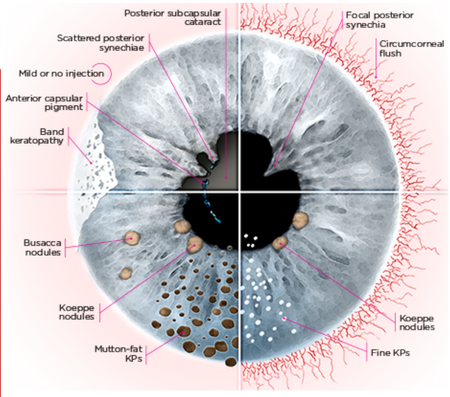
We present our experience of 11 patients undergoing GATT for uveitic /steroid induced glaucoma (UG/SIG).

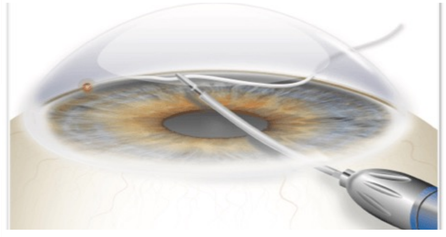
METHODS

Retrospective data collection identified GATT procedures performed in UG/SIG patients between October 2017 - February 2019.

Outcomes measured included:

- Intraocular pressure
- Number of glaucoma medications (NOGM) post-operatively
  - at day 1
  - 1 month
  - 3 months
  - 6-12 months







RESULTS

	Pre-operative	Post-operative				
		Day 1	1 week	1 month	3 months	6-12 months
IOP (mean)	33.5	17 *	11.5 *	11.5 *	15 *	12.3 *
NOGM (median)	3	-	0 **	0 **	0 **	0 **

Table 1. Mean IOP and Median NOGM Pre-operatively vs Post-operatively. (*) p<0.05, (**) p<0.01.

- The mean pre-operative IOP was 33.5mmHg (range 11mmHg-56mmHg) with median pre-operative NOGM being 3.
- At 6-12months post-operation the mean IOP was 12.3mmHg (range 5mmHg-14mmHg) with median NOGM being 0.
- At ≥ 6 months follow up there was a 53.3% reduction in mean IOP, and all patients required less medications, with 63% requiring none and over 80% requiring one or less.
- There was a statistically significant reduction in the IOP (p <0.04) and NOGM (p<0.01) at all post-operative visits.

CONCLUSIONS

This case series shows GATT is a highly effective short-term therapy in patients with refractory high pressure disease secondary to UG/SIG. It rapidly lowers IOP with minimal complications. Further follow-up of these cases, as well as prospective data is needed to establish the use of GATT as a definitive first-line approach in UG/SIG.