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# Conjunctiva-Related Glaucoma Surgery Complications Following Anterior Versus Posterior Approach Ptosis Repair

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Alexander Engelmann, MD; Suraj Bala, BS;

Catherine Hwang, MD; Julian Perry, MD

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# Disclosures

- No relevant conflicts of interest or relationships to disclose, financial or otherwise.



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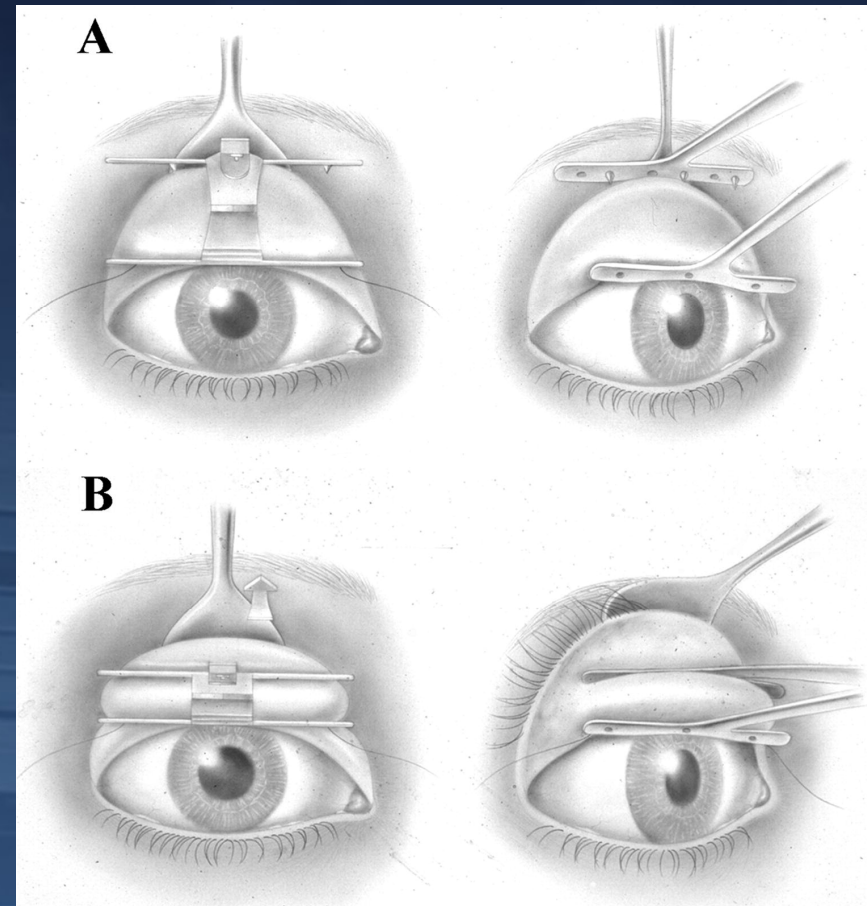
# Objective

- Review retrospective data from eyes that underwent glaucoma drainage surgery following ptosis repair.



# Clinical Question

- Should a surgeon consider the likelihood of a patient undergoing glaucoma filtration surgery when planning ptosis repair?
  - Does shortening the superior fornix increase the likelihood of a bleb-related complication with future glaucoma surgeries involving the conjunctiva?





# Background

- Collaborative Initial Glaucoma Treatment Study (CIGTS)
  - 12% trabeculectomy intraoperative complications
    - 1% conjunctival buttonhole
  - 50% trabeculectomy early post-operative complications
    - 13% shallow/flat anterior chamber
- Tube Versus Trabeculectomy Study (TVT)
  - 7% and 10% intraop complications for tube and trab respectively
    - 2% and 3% conjunctival buttonhole
  - 34% and 57% early post-operative complications
    - 1% & 13% wound/bleb leak, 11% & 12% shallow/flat anterior chamber
- Posterior approach ptosis repair (MMCR, CML)
  - 6-9 mm conjunctiva resected





# Study

- Retrospective cohort study including patients seen at the Cole Eye Institute between 2010 and 2025
- Inclusion Criteria
  - Eye with history of ptosis repair undergoing glaucoma drainage surgery (tube shunt, trabeculectomy, subconj filtration stent)
  - Age  $\geq 18$
  - At least 6 weeks of follow-up following glaucoma surgery
- Exclusion Criteria
  - History of ocular or periorbital trauma
  - History of surgery involving conjunctiva besides glaucoma surgery or ptosis repair
- Primary Outcomes
  - Intraop complication rate
  - Post-op bleb-related complication rate



# Demographics

<u>Eyes with Prior Ptosis Repair Undergoing Glaucoma Drainage Surgery</u>		
	<u>Anterior Approach (n=17)</u>	<u>Posterior Approach (n=18)</u>
<b>Gender</b>		
Female	56%	56%
Male	44%	44%
<b>Ethnicity</b>		
Caucasian	70.6%	66.7%
African American	17.6%	27.8%
Asian/Pacific Islander	5.9%	5.5%
Hispanic	5.9%	0%
<b>Age at Glaucoma Surgery (yrs)</b>	72.1 (SD 13.9)	77.6 (SD 6.2)
<b>Laterality (OD)</b>	58.8%	50.0%
<b>Time Between Surgeries (yrs)</b>	4.2 (SD 3.7)	4.9 (SD 3.4)
<b>Follow-up Length (yrs)</b>	5.2 (SD 3.8)	8.2 (SD 3.0)



# Results

<u>Eyes with Prior Ptosis Repair Undergoing Glaucoma Drainage Surgery</u>		
	<u>Anterior (n=17)</u>	<u>Posterior (n=18)</u>
<b>Severity of Glaucoma</b>		
Advanced	77%	67%
Moderate	23%	33%
<b>Glaucoma Diagnosis</b>		
POAG	50%	72.2%
SOAG	17.6%	22.2%
SACG	29.4%	5.6%
<b>Glaucoma Surgery</b>		
Tube Shunt	41.2%	66.7%
Trabeculectomy	47.1%	16.7%
Subconj Filtration Stent	17.7%	16.6%
<b>Prior Ocular Surgery</b>	76.5%	66.7%
Phaco	52.9%	44.4%
MIGS	5.8%	22%
PPV	17.6%	11.1%
Corneal Transplant	11.8%	11.1%





# Results

<b><u>Eyes with Prior Ptosis Repair Undergoing Glaucoma Drainage Surgery</u></b>			
	<b><u>Anterior (n=17)</u></b>	<b><u>Posterior (n=18)</u></b>	<b><u>Fisher's Exact Test</u></b> <b><u>P-Value</u></b>
<b>Conjunctiva-Related Intraop Complication</b>	5.9%	5.6%	0.514
<b>Conjunctiva-related Post-op Complication</b>	11.8%	5.6%	0.374
<b>Subsequent Glaucoma Surgery</b>	35.3%	16.7%	0.143
<b>Subsequent Ptosis Surgery</b>	<b>23.5%</b>	<b>0%</b>	<b>0.045</b>



# Interpretation

- No increased complication rate for eyes undergoing posterior approach ptosis repair prior to glaucoma drainage surgery
- Eyes that underwent anterior approach ptosis repair prior to glaucoma surgery were more likely to have repeat ptosis repair

## Limitations:

- “Sicker eyes”
  - A greater percentage of eyes that underwent anterior approach ptosis repair carried diagnoses of severe and secondary glaucomas



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# Thank You

- Special thanks to Drs. JD Perry and Cathy Hwang
- Questions or Comments?



## References

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# Discussion

- Does history of posterior approach ptosis repair impact glaucoma surgical planning?
- Do you alter your approach to ptosis repair for patients with moderate or severe glaucoma?
- Are there additional glaucoma surgeries that depend on conjunctiva availability?