

**Air bubble injection in anterior lamellar keratoplasty cases  
with descemet membrane perforation, pros and cons.**

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- No financial interest to disclose

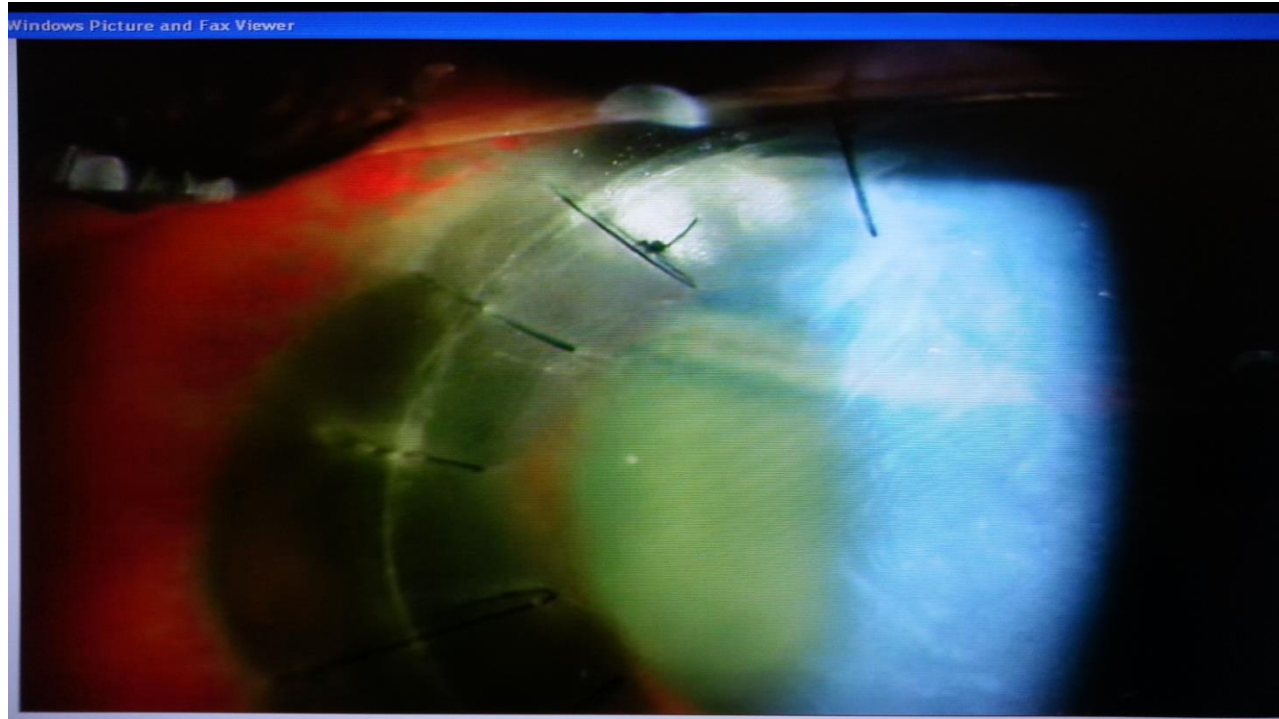
# Purpose & Methods

- To assess advantages and disadvantages of intracameral air bubble injection, in (DALK) cases with iatrogenic descemet membrane breaks , or near descemet anterior lamellar keratoplasty (ALK) with history of acute hydrops; to guard against DM detachment .
- Retrospective analysis of DALK and near descemet ALK cases for keratoconus, that required intracameral air tamponade, in the period from 4/2012 till 1/2014.

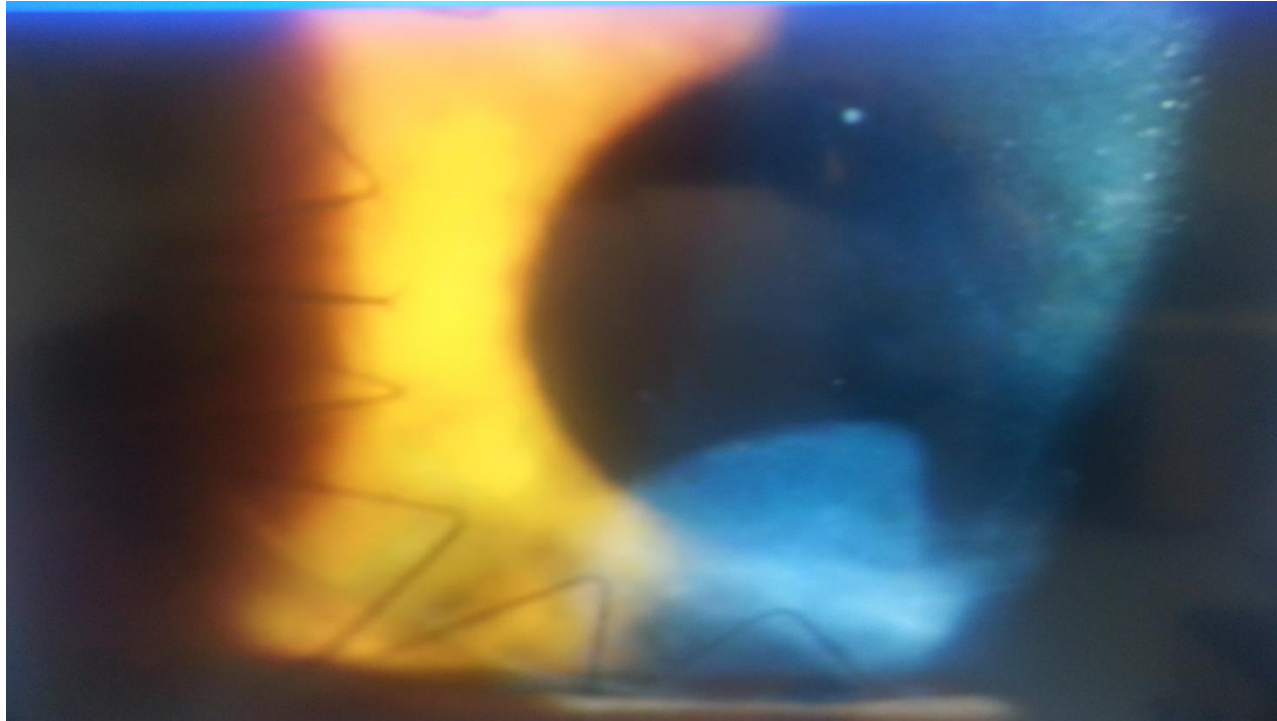
# Results

- 70 eyes for anterior lamellar keratoplasty, 21 (30%) cases required intracameral air tamponade (without peripheral iridectomy performed).
- Problems with bubble injection included;  
2 eyes with pupillary block, ending up with Uretts –Zavalia syndrome.  
2 eyes with trapped segmented bubble pushing inferior iris to the back of cornea and acute elevation of IOP.
- 14 eyes showed attached descemet membrane with sealed break, and no associated complications.
- Air bubble augmentation after near descemet ALK and descemet membrane detachment in 3 cases with history of acute hydrops, totally reattached descemet membrane was achieved 2 days post injection .

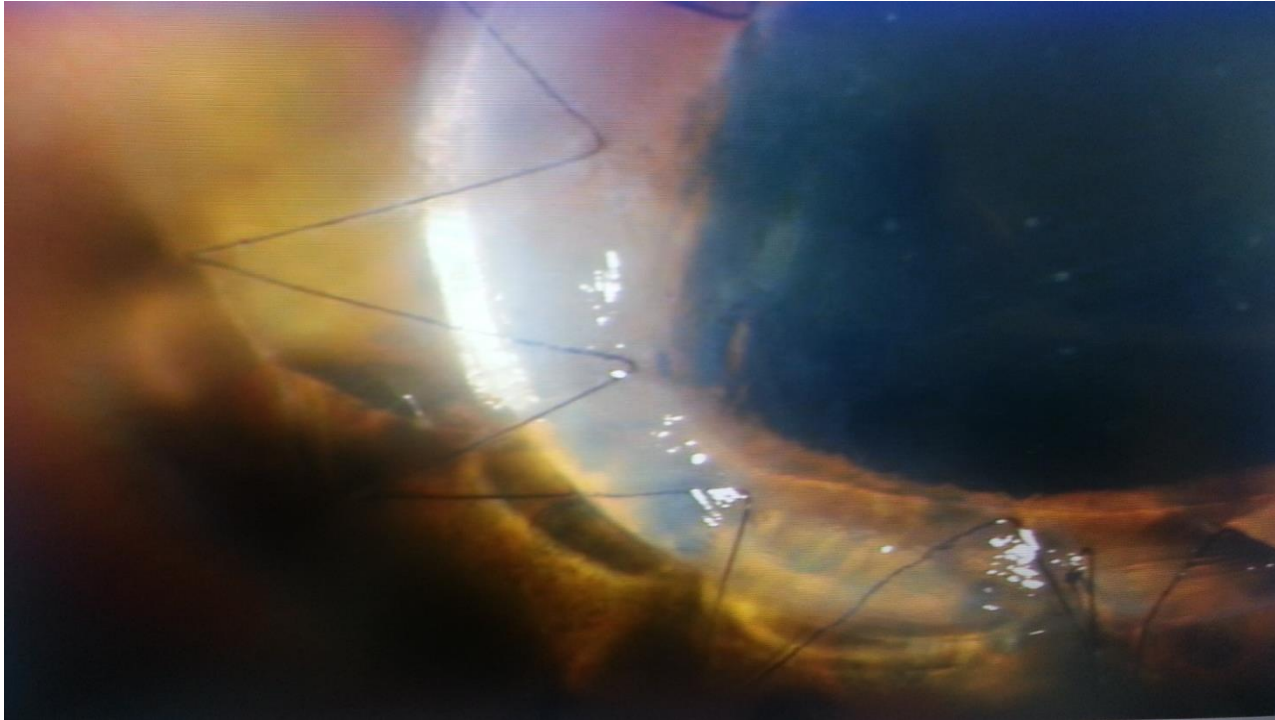
# Uretts Zavalia with cataract and fixed dilated pupil



# Near ALK with stromal plug and successful DM attachment



# Air bubble entrapped behind iris inferiorly



# CONCLUSION

- Air bubble injection is a useful tool with ALK cases ,and complications can be avoided by doing peripheral iridectomy with big sized bubble, or by injecting moderate sized bubble confined to the pupil size.