

Effects of Pterygium Surgery on Tear Film Function Evaluated with Oculus Keratograph

Hui Zhang, MD & PhD; Haian Yang, MD; Xun Jiang, MD; Yan Li, MD & PhD
Department of Ophthalmology, First Affiliated Hospital of Kunming Medical University
Kunming, Yunnan Province 650031, China



BACKGROUND

- Pterygium is a wing-shaped fibrovascular conjunctival growth extending onto cornea
- The prevalence in Chinese:
 - > 2.9% in north Chinese
 - > 14.4% in Tibetans
 - > 33.01% in rural Chinese in southern China
- Surgical options include:
 - bare sclera excision
 - excision combined with amniotic membrane
 - excision combined with conjunctival or limbal autograft (lowest recurrence rate)
- Various methods are available for the investigation of the relationship between pterygium and dry eye syndrome (DES)
- Keratograph is a device to detect several dry eye parameters non-invasively
- Keratograph has not been used to investigate the relationship between surgical excision of pterygium and DES

SUBJECTS

Comparison of Tear Film Function among Groups of Pterygium, Pinguecula and Normal Subjects

Pterygium Group Primary pterygium 20 cases (20 eyes)

Pinguecula Group Pinguecula 20 cases (20 eyes)

Normal Group Normal Control 20 cases (20 eyes)

Comparison of Tear Film Function before and after Surgery

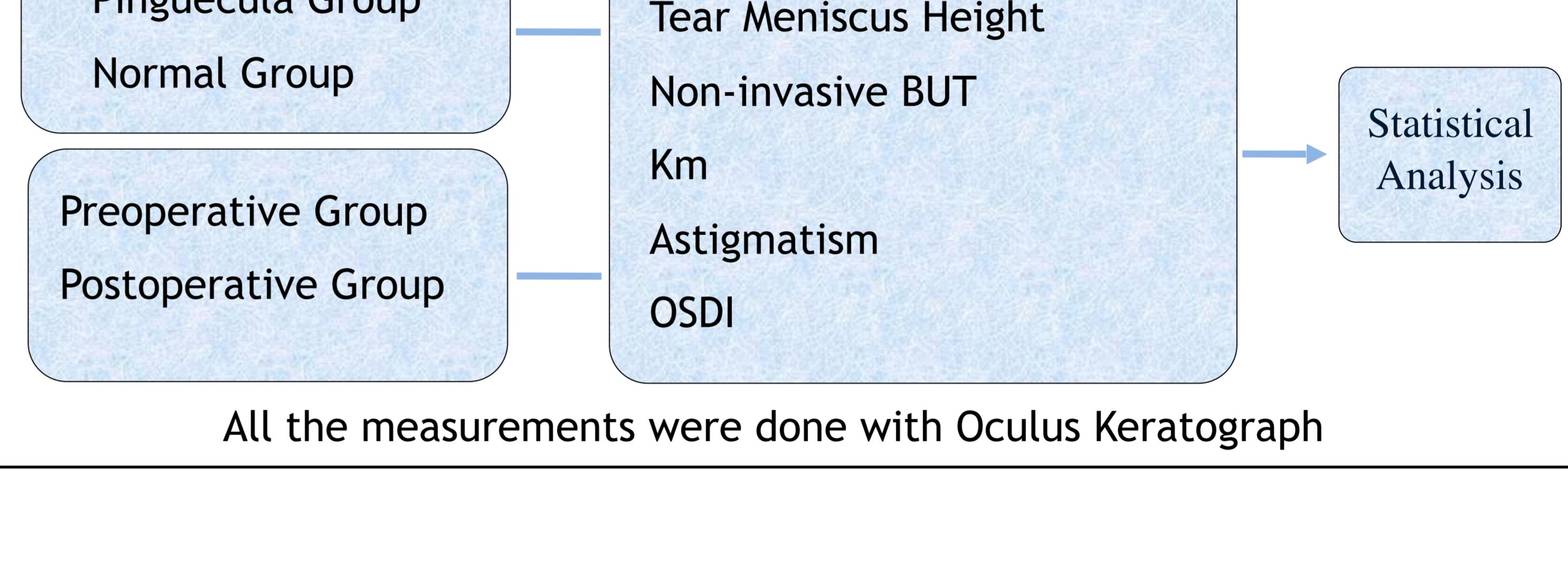
Preoperative Group Primary pterygium 26 cases (30 eyes)

Postoperative Group After pterygium excision and limbal autograft transplantation

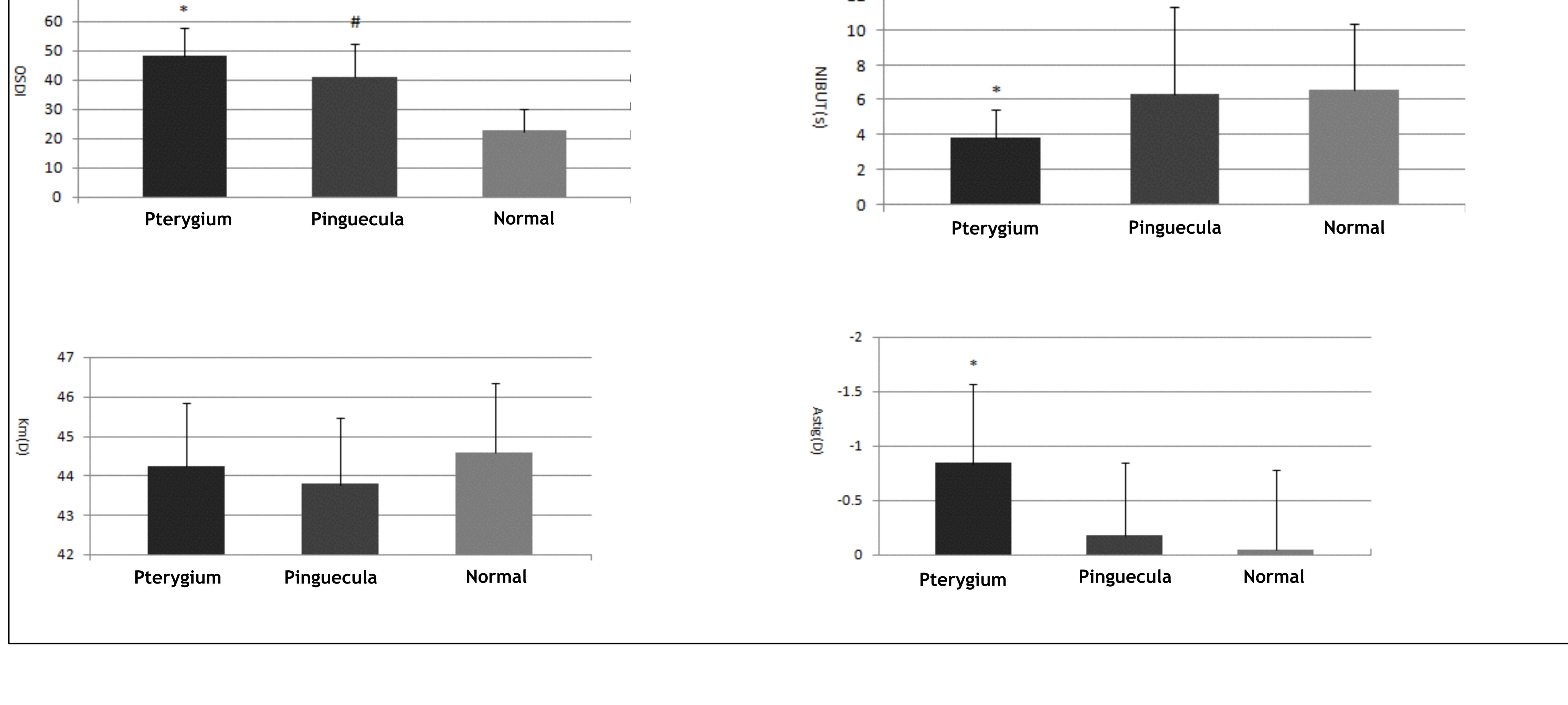
METHODS

PURPOSE

- To investigate the influence of pterygium on tear film function
- To investigate the changes of tear film function after pterygium excision combined with limbal conjunctival autograft transplantation..



RESULTS



CONCLUSION

- Pterygium can cause abnormal tear film function & corneal topography changes
- Excision & limbal autograft transplantation can relieve discomfort, improve tear film function & corneal topography

ACKNOWLEDGEMENT

This work is supported in part by research grants from NSFC (81260145 & 81560159).