Clinical Presentation, Management And Outcome Of Post-keratoplasty Infectious Keratitis: A 7-year Study

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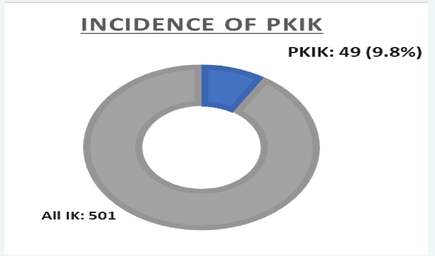
INTRODUCTION

- Post-keratoplasty infectious keratitis (PKIK) is a unique clinical entity that, if untreated, can be sight-threatening. Urgent treatment is essential to reduce the risk of graft failure and loss of vision.
- Higher incidence of PKIK was reported in developing countries (up to 11.9%) than developed countries (up to 7.9%). [1,2]
- PKIK can often result in significant ocular morbidities, including poor visual outcome, graft failures. [2,3]
- Gram-positive bacteria, particularly, Staphylococcus aureus and Streptococcus pneumoniae, are the most often identified microorganisms responsible for PKIK. [1,2]
- Over the past decade, only two studies in the UK have specifically examined the causes but not the management and the outcomes of PKIK. [2,4,5]
- This study aimed to examine the clinical presentation, risk factors, management and clinical outcomes of PKIK.

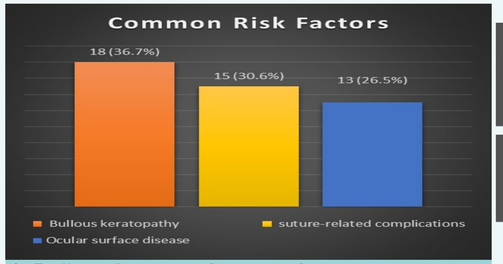
METHODS

- This was a retrospective observational study. All patients who presented to the Queen's Medical Centre, Nottingham, with infectious keratitis following between September 2015 and Aug 2022 (a 7-year period) were included.
- Relevant data on the types of keratoplasty, clinical presentations, causative microorganisms, corrected-distance-visual outcome (CDVA), management, and outcome were analysed.

RESULTS



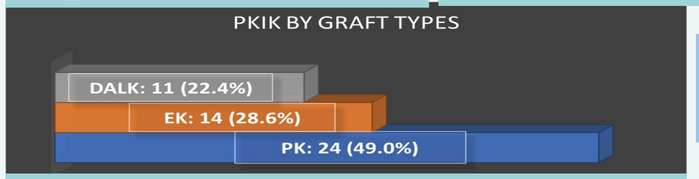
1. 49 (9.8%) PKIK cases were identified among the 501 IK cases



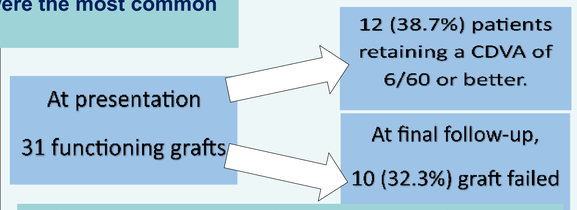
2. Bullous keratopathy were the most common risk factors for PKIK

3. *Staphylococcus spp.* were the most commonly identified organism (15, 50.0%).

4. Topical steroid use was identified in 25 (51.0%) cases.



5. PKIK was most commonly observed following penetrating keratoplasty (PK)



6. Outcome of initially functioning grafts

CONCLUSIONS

- PKIK represents an important cause of IK and graft failure, and it often poses significant therapeutic challenges in clinic.
- Bullous keratopathy and suture-related complications and represent the two commonest reasons for PKIK.
- Early suture removal (where possible) and prophylactic topical antibiotics may help reduce the risk of suture-related and bullous keratopathy-related PKIK, respectively.

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