

## **ABSTRACT**

AIM: To determine the demographic characteristics, etiology, clinical features and management outcomes of peripheral ulcerative keratitis presenting to the cornea department of Aravind Eye Hospital and Postgraduate institute of Ophthalmology, Madurai.

**STUDY DESIGN-** Hospital based, prospective observational study

## **METHODS-**

All patients with features of PUK were included during the study period. Patient details and systemic history were obtained followed by investigations like ESR TC DC ANA Mantoux, corneal scraping were done.

## **RESULTS**

We recruited 98 eyes of 69 patients. Bilateral cases were 41%. The male to female ratio is 3:1. Mean age was  $60.1 \pm 17$  years. Smokers were 24.6%. Nearly 61% belong to rural population. Mooren's ulcer was the common etiology 23.5% followed by RA 7%. PUK occurred at same site following previous intra-ocular surgery in 12.2% eyes. Most common presentation was moderate grade of PUK (41%). There was delayed presentation of patients in severe grade. Diabetes mellitus was most commonly associated systemic disease 21.74% more with severe grade. CDK was most frequent associated eye finding in PUK (13.2%). Mean healing time for mild, moderate and severe

grades is 10.76, 18.3 and 47.8 days respectively. Topical steroids are effective in mild and moderate grade of PUK but severe forms require immunosuppressant or need surgical management. Anatomical success for mild and moderate cases, it is 100% and for severe cases, it is 96.56%. Perforation occurred in 9 eyes mostly in Mooren's ulcer(66.7%). Two of these eyes developed phthisis. Complicated cataract 49% followed by anterior uveitis 12% and glaucoma 7% are the most frequent complications. There was improvement in visual acuity in moderate grade of PUK  $p < 0.001$  compared to the rest.

## **CONCLUSION**

PUK requires a complete evaluation of the ocular and systemic condition to identify the etiology as the treatment is based on it. Hence, prompt referral and collaboration with rheumatologist can not only save the vision but also the life of the patient in lethal collagen vascular diseases.

**Keywords:** Peripheral ulcer, keratitis, Moorens, Rheumatoid arthritis, Granulomatosis polyangitis, conjunctival resection, immunosuppressant, perforation, patch graft.