

## ABSTRACT

### **Antimicrobial Sensitivity Pattern of Pre-Operative cases at Al-Shifa Trust Eye Hosp Rawalpindi**

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**Purpose:** To review the distribution and shifting trends of bacterial culture specimens in preoperative cases in an eye hospital and to assess the sensitivity pattern of isolated organisms to the treatment regimen utilized

**Design of Study:** Retrospective analysis of record of 2,050 hospital indoor pre-operative patients.

**Participants:** 2,050 hospital patients admitted during two year period for intra-ocular surgery without any symptom of ocular infection.

**Methodology:** Conjunctival swabs for microbiological examination were taken from patient's eye to be operated. The samples were examined by gram staining and cultured on Blood Agar, Chocolate Agar, Brain Heart infusion broth, and thioglycolate broth. Cultures were maintained for 7 days. Antibiotic susceptibility of these isolates was determined for various ocular antibiotics using the Sisk Diffusion Susceptibility Test.

**Results:** Ocular surface infection was documented in 23% of otherwise non-symptomatic pre-operative admitted patients. 75% were attributable to gram-positive, while 25% were due to gram-negative. No fungal growth was observed. Amongst the gram positive, Staph aureus had the highest prevalence of 41% followed by Strept pneumoniae of 11.5% Gram-negative bacteria predominantly isolated were Pseudomonas aeruginosa, which represented 6% Antimicrobial susceptibility results revealed variable degrees of susceptibility in the isolates from our preoperative cases. The over all gram-positive strains demonstrated highest sensitivity to keflax (82%) and then to Ciprofloxacin (56%). The gram-negative bacteria presented with highest sensitivity to Ofloxacin (85%) followed by Ciprofloxacin (74%).

**Conclusion:** Several preoperative risk factors can predispose to an infection. Their early recognition may prevent a disastrous outcome. However, in some cases the infection seems impossible to foresee. Therefore, a careful patient selection and special attention to asepsis are mandatory. Al-shifa Journal of Ophthalmology 2005; 1:45-52(c) Al-shifa Trust Eye Hospital, Rawalpindi, Pakistan