

**ABSTRACT:****BACKGROUND & OBJECTIVES:**

This is a prospective interventional study to identify the commonest bacteriological profile and its sensitive antibiotic pattern by collecting intra operative toxic peritoneal fluid in patients who are operated for perforative peritonitis due to Duodenal ulcer perforation and to administer the specific antibiotics according to culture sensitivity report instead of using routine empirical antibiotic therapy and thereby reduce the postoperative morbidity and mortality.

**METHODS:**

140 patients who are admitted in Govt. Rajaji Hospital between January 2016 and August 2016 with Duodenal ulcer perforation peritonitis are studied. In such patients peritoneal toxic fluid is collected during laparotomy and the bacteriological profile and sensitive antibiotic pattern is identified. Out of 140 patients 70 patients are administered with empirical antibiotics and remaining 70 patients are administered with specific antibiotics according to culture and sensitivity report. Then comparison is done between these groups in terms of postoperative complications like wound infections, wound gaping, burst abdomen, septicaemia, lung infections, mortality, frequency of secondary minor procedures like secondary suturing & tension wire banding and days of hospital stay.

**RESULTS:**

The commonest organism isolated is E.coli (45% ie 63 out of 140 patients). The other organisms which are isolated include klebsiella, polymicrobial flora, pseudomonas,

streptococcus and staphylococcus. The sensitive antibiotics are Piperacillin tazobactam 28.5% (40 out of 140 patients), cefotaxime 26.4%. Other sensitive antibiotics includes ceftriaxone, amikacin , ciprofloxacin, gentamycin. In terms of postoperative outcomes 39 pts in group I and 22 pts in group II had wound infections. 18 pts in group I and 14 pts in group II had wound gaping. 21% (30 out of 70 pts in group I) and 40% (56 out of 70 in group II) had postoperative hospital stay of less than 10 days. It is clearly evident that patients on specific antibiotic therapy (group II) had better postoperative outcomes.

### **CONCLUSION:**

Perforative peritonitis is one the most common cases encountered in surgical casualty opd. In spite of easy diagnosis, operative procedure and presence of modern broad spectrum antibiotics, the postoperative morbidity and mortality is still a challenging task for all surgeons. This study concludes that administration of specific antibiotic therapy reduces the postoperative morbidity and mortality. Since few studies are conducted in this aspect, many studies are needed to be initiated in various institutions.

### **KEYWORDS:**

Duodenal ulcer perforation peritonitis, peritoneal toxic fluid, culture and sensitivity, E.coli, Piperacillin tazobactam, postoperative complications, secondary suturing, tension wire banding