Anti-biotics activity against isolates from patients surgical site infection at Gezira hospital for renal diseases and surgery- Wad Medani, Sudan

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Wound infections contribute significantly to morbidity and mortality in surgically treated patients. Number of factors contributes to wound infection; however, microorganisms are the major causes with bacteria being the most prevalent. Determination of local bacterial sensitivity patterns to antibiotics is an important to provide a guide for an appropriate management. The present study was designed to investigate the susceptibility of etiological pathogens isolated from the Gezira Hospital for renal diseases and surgery, to different types of antimicrobial agents and the risk factors during the period between August and December 2015. The study followed prospective case series for all patients admitted to the surgical wards during this period. The demographic data, diagnostic criteria, and laboratory data were collected. Out of the 200 patients recruited in the study, (18%) showed evidence of sepsis yield infections. The predominant isolate was \textit{Staphylococcus aureus} which represent (31%) of the total isolated Bacteria. Cloxacillin exhibited the highest activity (87%) against Staph aureus while Cefotaxime, Co-trimoxazole and Cefalexin showed only (7%). In contrast to previous study reported that \textit{Staph. aureus} was 100% susceptible to Cefotaxime, this conflict may due to the production of β-lactamase or alternation of the target site with the decrease affinity to the drug and the diabetic patients showed high incidence of wound infection compared with non-diabetic. In conclusion, the rate of surgical site infection was relatively high, and the predominant pathogen \textit{Staph. aureus} was highly susceptible to Cloxacillin and resistant to Cefixim.