Original Research Paper

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STUDY OF POST OPERATIVE WOUND INFECTIONS AFTER LSCS

Medical Science

KEYWORDS: SSI, LSCS, Antibiotic susceptibility.

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ABSTRACT

Surgical site infection is the most common complication seen in lower segment caesarian section patients. It increases maternal morbidity, hospital stay and medical cost. Post operative wound infections were identified by discharge of pus, blood from the incision site leading to complications like wound cellulitis and wound abscess. The study was undertaken in Obstetrics & Gynaecology department in GGH, Kakinada, to identify predominant organisms causing wound infection and to determine the antibiotic susceptibility of the isolates.43 bacteria isolated from 50 samples.P.aeruginosa 23 (46%) was the most predominant isolate causing wound infection followed by S.aureus 15 (30%), K.pneumoniae 5 (10%), Gram negative isolates were found to be more susceptible to Imepenem (100%) followed by Piperacillin and Tazobactum (91.30%).Gram positive cocci were found to be more susceptible to Vancomycin (86.6%) followed by Linezolid & Aminoglycosides (80%).

INTRODUCTION:

Surgical site infection is the most common complication seen in lower segment caesarian section patients. It increases maternal morbidity, hospital stay and medical cost. This is the first study in this hospital.

AIMS:

1. To identify the predominant organisms causing wound infection.
2. To determine the antibiotic susceptibility of the isolates.

INCLUSION CRITERIA:

Post operative wound infections were identified by discharge of pus, blood from the incision site leading to complications like wound cellulitis and wound abscess.

METHODS:

Under sterile conditions purulent discharge was collected from the wound site with sterile swabs & Gram staining was done , inoculated on Mac Conkey, Blood agar, Brain heart infusion broth and incubated at 370c aerobically for 24 hours and organisms were identified by conventional methods.

RESULTS:

43 bacteria isolated from 50 samples. P.*aeruginosa* 23 (46%) was the most predominant isolate causing wound infection followed by S.aureus 15 (30%), K.*pneumoniae* 5 (10%), Gram negative isolates were found to be more susceptible to Imepenem (100%) followed by Piperacillin and Tazobactum (91.30%). Gram positive cocci were found to be more susceptible to Vancomycin (86.6%) followed by Linezolid & Aminoglycosides (80%).

Table No-1 Comparative study of microorganisms isolated from positive culture

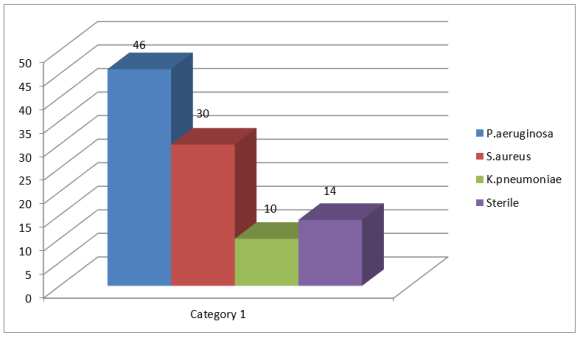
Organisms	P.aeruginosa	S.aureus	K.pneumoniae
Mahmood et al	45 (64.3%)	22(21%)	25(32.9%)
Sengupta et al	07(10%)	30(29%)	33(42.30%)
Nwachukwu et al	10(14.3%)	00(0%)	00(0%)
Present study	23(46%)	15(30%)	05(10%)

Table No-2 Comparative Table of Antibiotic Sensitivity

Author	Imepenem	Piperacillin & Tazobactum	Vancomycin	Linezolid
Nwachukwu et al & Sengupta et al	100%	38%	-	-
Mahmood et al	96%	90%	100%	100%
Present study	100%	91.3%	86.66%	80%

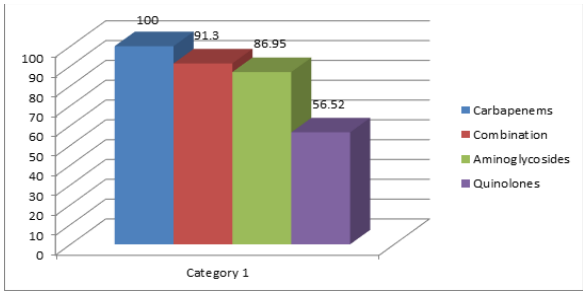
Graph No-1 Isolation rate of organisms

(n=43)



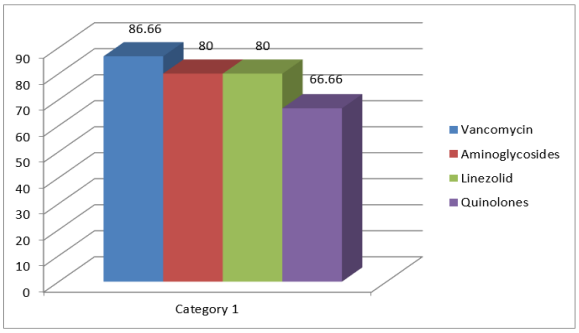
Graph No-2 Antibiotic Susceptibility of Pseudomonas aeruginosa

(n=23)

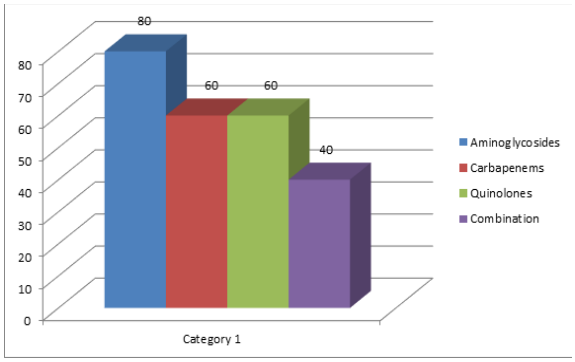


Graph No-3 Antibiotic Susceptibility of Staphylococcus aureus

(n=15)



Graph No-4 Antibiotic Susceptibility of Klebsiella pneumoniae (n=5)



DISCUSSION:

In present study 43 bacteria isolated from 50 samples of post operative wound discharge. This study is correlating with Mahmood et al as P.aeruginosa is the predominant isolate and differing with Nwachukwu et al and Sengupta et al. Antibiotic susceptibility is correlating with Mahmood et al in relation to Imepenem (100%) and Vancomycin (86%), Linezolid (80%). In case Piperacillin and Tazobactum, Nwachukwu et al and Sengupta et al showed only 38% susceptibility where as Mahmood et al and present study above 90%. This study may serve to guide to implement infection control practices and rational antibiotic use are essential to control post operative wound infections.

REFERENCES:

1) Pradhan G, Agarwal J. comparative study of post operative wound infections following emergency LSCS with and without the topical use of fusidic acid. Nepal med coll J. 2009; 11; 189-91.
2) Isibor OJ, Oseni A, Eyanfe A. incidence of aerobic bacteria and candida albicans in post operative wound infections, Afr J Microbial Res. 2008 ; 2 ; 288-91.
3) Amikar AR, Deshmukh AB, Karyakarte RA, Danle AS, Patwardhan NS, Malik AK et al. One yr prospective study of 3280 surgical wounds. Indian Journal of Medical Microbiology 1999 ; 17 (3); 129-32.