International Journal Dental and Medical Sciences Research
Volume 3, Issue 1, Jan-Feb 2021 pp 522-523 www.ijdmsrjournal.com ISSN: 2582-6018

Bacteriological Profile of Pus Sample And it's Antibiotic Susceptibility Pattern With special Reference to Multi-drug Resistant Pseudomonas

Dr PREETI S (Post graduate), Dr KRISHNA S (Professor and HOD),Dr MARIRAJ J (Professor), Dr SUREKHA Y (Associate professor)
Vims, Ballari

Submitted: 10-01-2021 Revised: 18-01-2021 Accepted: 21-01-2021

I. INTRODUCTION

Wound infection can be caused by variety of organisms like bacteria, virus, fungi and protozoa and may co-exist as poly microbial communities.

Even though the bacterial profile of pus samples in many studies remain the same,the antibiotic resistance pattern of these isolates has shown a lot of variations.

II. OBJECTIVES

To detect the bacteriological profile and anti biotics ensitivity of pus samples of patients with special reference to multi drug resistant Pseudomonas spp at VIMS,Ballari.

III. MATERIALS &METHODS

This is a retrospective study in which a total of 586 pussamples were studied over a period of 6 months from April 2018-September 2018.

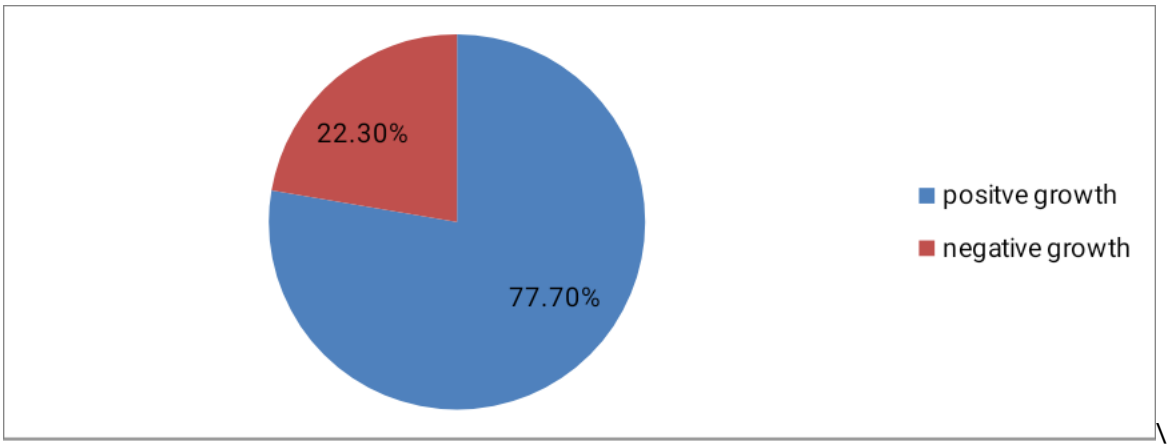
Pus samples were collected with sterile disposable cotton swabs and pus aspirates in syringes and were immediately transported to the microbiology laboratory to be processed.

They were inoculated on to Blood agar (BA) and Mac Conkey agar (MA)and plates were incubated at 37°C for 24 to 48hrs.

Identification of isolate from positive cultures was done using standard micro biological techniques.The anti biotic sensitivity testing of all isolates was performed by Kirby Bauer's disc diffusion method on Muller Hintonagar and interpreted as per CLSI guidelines.

IV. RESULTS & DISCUSSION

Out of 586 samples, 452(77.7%) samples were positive for growth.

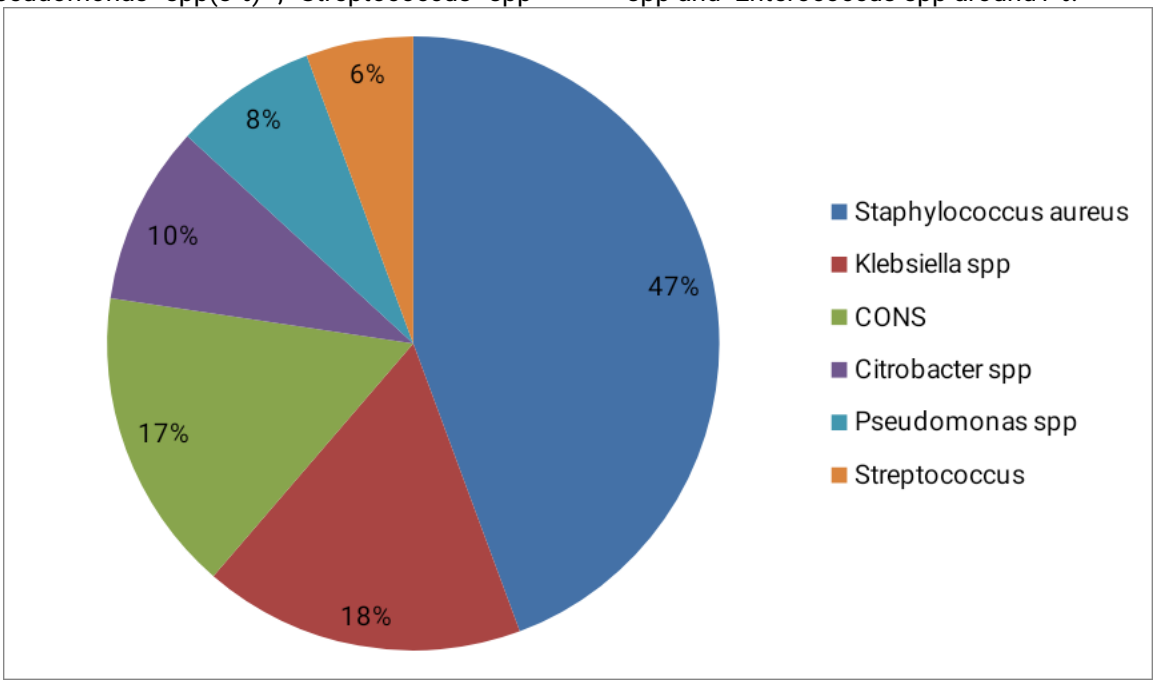


\

Outof452samples,themostcommonbacteriaiso

International Journal Dental and Medical Sciences Research
Volume 3, Issue 1, Jan-Feb 2021 pp 522-523 www.ijdmsrjournal.com ISSN: 2582-6018

lated was Staphylococcus spp (47%) followed by Klebsiella spp (18%) , Citrobacterspp(10%), Pseudomonas spp(8%) , Streptococcus spp (6%), Proteus spp (2.5%), Acinetobacter spp(2%), E.coli , Candida spp and Enterobacter spp and Enterococcus spp around1%.



Staphylococcus spp is 95% sensitive for gentamicin, 84% for tetracycline, 94% for amikacin, 93% for doxycycline , 80% sensitive for ciprofloxacin, 78% for erythromycin, 77% for amoxclav. Klebsiella spp is 96% sensitive for amikacin,94% sensitive for gentamicin,84% sensitive for ceftriaxone,84% sensitive for oflox,78% for ciprofloxacin,73% sensitive for amoxyclav.

Citrobacter spp is 97 % sensitive for amikacin,95 % sensitive for gentamicin , 86%sensitive for ceftriaxone,77% sensitive for oflox, 69% sensitive for amoxyclav. Pseudomonas spp is 92% sensitive for amikacin, 70% sensitive for amoxyclav , 84% sensitive for gentamicin ,87% sensitive for pefloxacin ,89% sensitive for ceftazidime,79% sensitive for cephalexin.7 out of 37 spp of Pseudomonas spp are multidrug resistant i.e 18% Streptococcus spp is sensitive to 94% amikacin, 95% to gentamicin, 92% to cephalosporins,90% to amoxyclav,92% to oflox, 94% to doxycycline. While rest other organisms were susceptible to almost all the drugs according to CLSI guidelines.Our findings indicate the predominance of S.aureus among the bacterial isolates of pus.The prevalence and antibiotic resistance patterns of pyogenic bacterial isolates usually exhibit variability according to geographic areas and climate conditions. Existence of high drug resistance to multiple antibiotics in P.aeruginosa points toward incomplete treatment schedules, antibiotic misuse,self prescription,lack of regional antibiogram data, and limited knowledge about multidrug-resistant isolates and antimicrobial resistance among clinicians.

V. CONCLUSION

This study emphasizes to understand the common organisms isolated from wound infections and it helps in empiricl treatment of patients based on antibiotic susceptibility patterns. Although wound infections cannot be eradicated completely, proper wound care and its management and above all implementation of infection control measures by following strict hygiene practices, education about the spread of bacteria through contaminated hands and environment would lead to a decrease in infections with resistant organisms which would be a burden to both the hospital and the patient.