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## Bacteriological Profile from Pus Samples in A Tertiary Care Hospital, Chennai.

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### ABSTRACT

To study the pattern of pathogens isolated from pus in a tertiary care hospital. This was retrospective study from pus cultures. The data was obtained from the records maintained in the Department of Microbiology over a period of six months from August 2015 to January 2016 in our hospital. 124 pus cultures were studied. E. coli (60.7%) was the most common pathogen s (9.8%). E. coli were common pathogen followed by Klebsiella isolated form pus cultures.

**Keywords:** Pus culture, Pathogen

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## INTRODUCTION

Accumulation of pus, either within an abscess or exuding from a sinus tract or from a mucocutaneous surface is a sign of local abscess [1]. Exogenous wound infections include those associated with traumatic injury or decubitus pressure ulcers (bed sores) [2], Animal or human bites [3,4], burns [5,6], or foreign bodies in the skin or mucous membranes. Endogenous wounds are associated with appendicitis, cholecystitis, cellulitis, dental infections, osteomyelitis, empyema, septic arthritis, sinusitis, or other internal infections [1]. Most of them are nosocomial (acquired in healthcare institutions), contracted after invasive procedures, surgical manipulations, or placement of prostheses.<sup>1</sup> Hematogenous spread from primary site also occurs [1]. Infectious diseases are most frequent cause of morbidity and mortality worldwide [7]. The most diseases are caused by bacteria, viruses, protozoans and other parasite [8]. Local and systemic Inflammation with pus formation are seen in pyogenic infection. Bacteria enters through break in skin surface and multiplies locally. Defense mechanism brings immune cells, which fight against bacteria. Pus (thick whitish liquid) produced by accumulation of these cells [9,10]. Wound dehiscence or wound breakdown are some of the complications [11, 12].

## MATERIALS AND METHODS

This was a retrospective study conducted in Department of Microbiology, Sree Balaji Medical College and Hospital, Chromepet, Chennai. The data including the pus culture positive reports were analyzed for a period of 6 months from August 2015 to January 2016. Details obtained from the Lab of Microbiology department of our college.

## OBSERVATION AND RESULTS

In this study, a total of 124 pus culture reports were studied from August 2015 to January 2016. Most organisms isolated from pus was *Escherichia coli* (n= 75, 61%), *Klebsiella* (n=25, 21%) and *Staphylococcus aureus* (n=12, 10%), *Pseudomonas* (4%), *Enterobacter* (2%), *Proteus* (2%), *Staphylococcus epidermidis* (1%)

## DISCUSSION

The most common pathogen was *E.coli* (61%). The previous studies carried out in different parts of India by Karia JB et al shown most common pathogens were *staphylococcus aureus* (39%), *Pseudomonas* (26%) and *E.coli* (20%) from pus samples [13]. In Sree Balaji Medical College and Hospital, Chromepet, Chennai, most common pathogen isolated from pus was *E.coli*.

## CONCLUSION

The knowledge about the bacterial profile is needed, which differs in a geographical manner. *E.coli* was the most isolated organism followed by *Klebsiella* and *Staph.aureus*.

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