**Original article:**

**Bacteriological Profile & Anti microbial susceptibility among Burns patients at a tertiary level hospital, Hyderabad**

**Dr. Md. Khaleel,\* Dr. Pavan Kumar Kulkarni\*\***

**\*Associate Professor, Dept. of Microbiology, Deccan College of Medical sciences, \*\*Assistant Professor ,Dept. of Community Medicine, Deccan College of Medical sciences , Hyderabad , India**

**Corresponding author : Dr Md Khaleel**

**Abstract:**

**Background:** Infection is a common cause of morbidity and mortality in burn patients. Clinical diagnosis of bacteremia and/or sepsis in burn patients is difficult for a number of reasons. It could be symptomatic and/or asymptomatic as a result of immune deficiency secondary to thermal injury.

**Methods:** A cross sectional study was conducted at Owaisi Hospital Burns ward. Blood specimen and wound swab were collected from burn patients and were cultured by conventional method. Sensitivity/susceptibility pattern of the isolates was determined by disc diffusion method. Some of the risk factors of bacteremia like prior antibiotic use and total body surface area burn were also determined.

**Results:** Fifty patients were enrolled in the study of whom 21(42%) were found bacteremic. Five different bacteria were isolated from blood specimen. Coagulase negative Staphylococci, 9(42.8%), S. aureus, 8(38.2%), Bacillus spps, 2(9.52%), K. pneumoniae, 1(4.8%), and P. aeruginosa, 1(4.8%), were frequent isolates. From wound swab, S. aureus, (34.04%), and P. aeruginosa, (31.8%), were predominant. Antimicrobial resistance was observed for Ampicillin, (77.4%), Doxycycline, (74.0), Nalidixic acid, (70.5%), Penicillin G, (68.2%), and tetracycline, (67.5%). Total body surface area of burn ≥ 15% was found as a risk factor for bacteremia.

**Conclusion:** Bacteremia was detected at a rate of 42% among burn patients. Frequent isolates were S. aureus, (34.04%), and P. aeruginosa, (31.8%). About 82.16% of the isolates showed multiple resistances. In light of our findings, regular antibiotic resistance test has to be done for each patient in order to select an appropriate antimicrobial age.

**Keywords:** Antimicrobial susceptibility, beside Antimicrobial susceptibility,Bacteremia,Sepsis