

TITLE: METHICILIN RESISTANT *STAPHYLOCOCCUS AUREUS* (MRSA) INFECTIONS AMONG HIV-INFECTED PATIENTS IN SALVADOR-BA

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ABSTRACT:

Methicillin-resistant *Staphylococcus aureus* (MRSA) emerged as a public health issue, due to its adaptable nature and ability to develop resistance to antibiotics. There are many risk factors associated with this bacterial infection, such HIV-infected people, that's requires a specific clinical management during disease's course. Thus, local data about *S. aureus* infections can demonstrate the burden of illness and improve the prevention strategies. The objective of this study was to evaluate the epidemiology of MRSA at Hospital Couto Maia, a referral infectious diseases hospital in Salvador, Bahia. Cases were identified retrospectively from microbiological records from January 2014 to August 2016. All clinical data were obtained by medical charts review. Epi-info v. 3.5.1 was used to create a database and to run the univariate analysis. In the study period, 160 cultures were positive for *S. aureus*. Among those, 75/160 (46,9%) were excluded due to duplicity (40/160) or because they had no evidence of disease (35/160). Male gender were predominant (68/85, 80%) and the median of age was 38 years-old (range: 31-44). HIV-infected cases occurred in 46/85 (45.9%) and were associated with MRSA isolation (80.4% vs 40.6%, $p < 0.001$, OR: 6.01, 95% CI 2.18-16.57). *S. aureus* was predominantly isolated from blood ($n=68$, 80%), followed by secretions ($n= 10$; 11.8%) and other sites ($n=7$, 8.2%). In the univariate analysis, deaths were associated to intensive care unit (ICU) admission ($p < 0.001$, OR: 6.37, 95% CI 2.17-18.70), HIV infection ($p=0.04$, OR: 2.75, 95% CI 1.02-7.65), bacteremia ($p=0.02$, OR: 5.25, 95% CI 1.10-24.80) and methicillin resistance ($p < 0.001$, OR: 16.8, 95% CI 3.64-77.60). Timely identification of risk groups provides baselines to enhance and further improve the prevention and control of MRSA infections, especially among vulnerable patients.

Keywords: HIV, MRSA, *Staphylococcus aureus*

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