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HETEROGENOUS VANCOMYCIN INTERMEDIATE *STAPHYLOCOCCUS AUREUS* (hVISA) IN TERTIARY HOSPITAL

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Background:

Heterogenous vancomycin intermediate *Staphylococcus aureus* (hVISA) strains are isolated from patients undergoing prolonged vancomycin treatment and it has been suggested to be one of the causes of vancomycin treatment failure. As there were increased number of vancomycin treatment failure cases in Universiti Kebangsaan Malaysia Medical centre (UKMMC), we determined the prevalence of hVISA among MRSA strains isolated in this hospital.

Materials and Methods:

A total of 88 MRSA clinical isolates collected from November to December 2009 were screened for vancomycin hetero-resistance using Glycopeptide Resistance Detection (GRD) Etest and Vancomycin Etest antibiotic strips (AB BIODISK). Positive isolates were then confirmed using population analysis profile-area under the curve (PAP-AUC) method.

Results:

Two isolates were confirmed as hVISA after PAP-AUC analysis, giving a prevalence rate of 2.3%. These isolates were also tested positive as hVISA using the GRD Etest.

Conclusion:

This is the first report of hVISA in UKMMC. As the isolates used in this study were collected only for two months, and that vancomycin is the current standard therapy for MRSA infections, we suspect that the actual prevalence of hVISA might be even higher. We found the GRD test useful for hVISA screening, nevertheless PAP-AUC analysis still remains the gold standard for hVISA confirmation.

Keywords:

heterogenous vancomycin intermediate *staphylococcus aureus* (hvisa), tertiary hospital