LETTER TO EDITOR

Increasing Rate of Detection of Fusidic Acid Resistance in Methicillin-Resistant *Staphylococcus aureus* Isolated from Clinical Samples in Malaysia

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Dear Sir,

Antimicrobial resistance of Staphylococcus aureus especially methicillin-resistant S. aureus (MRSA) is continues to be a problem for clinicians worldwide, It is associated with a variety of clinical infections including septicemia, pneumonia, wound sepsis, septic arthritis, osteomyelitis and post-surgical toxic shock syndrome with substantial rates of morbidity and mortality of patients [1] and fusidic acid is one of several antibiotics used in its management. Fusidic acid is a narrow-spectrum bacteriostatic antibiotic, particularly active against staphylococci. It is used both topically and systemically for the treatment of staphylococcal disease. Although frequencies of resistance to this antibiotic have remained generally low, emerging resistance is a problem that could limit the therapeutic options available for treatment of staphylococcal infections.

As this antibiotic provides an alternative or switch therapy to vancomycin in Malaysia, knowledge of the local fusidic resistance of MRSA is essential to guide empirical and pathogen specific therapy. Hence, it is important to know the resistance rates of MRSA to this antibiotic agent. A total of 120 non-duplicate MRSA isolates were obtained from samples submitted to the microbiology lab in tertiary care hospital in Kuala Lumpur. MRSA isolates were investigated by antibiotic disk susceptibility testing and 38 (31.6%) were found to be resistant to fusidic acid. Fusidic-acid-resistant MRSA has increased over time, the rate of resistance about 20 years ago was less than 1% in Malaysian hospitals, the resistance rates for fusidic acid was reported to be within the range 3–5% in the years 1992–1996 [2] and 11% in 2009 [3]. Increased resistance to fusidic acid will further reduce the already limited treatment options for MRSA infections. The development of resistance during treatment with fusidic acid when it is used alone is being reported increasingly [2], hence the reducing in the susceptibility of the isolates probably reflects the different patterns of antibiotic usage and thus development of resistance.

In view of the increasing resistance rates of MRSA to fusidic acid, treatment of MRSA infections with this antibacterial agent alone would be unreliable and as the emergence of resistance has been associated with monotherapy, fusidic acid prescription should be limited and used only in combination with other agents where clinically indicated, and where the infecting bacteria are susceptible and the education of physicians on the appropriate prescribing of fusidic acid is crucial to prevent further emergence of these resistant strains.

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