LETTER TO EDITOR

Antimicrobial Prophylaxis For Melioidosis and Leptospirosis For At Risk Rescue Workers

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Dear Editor,

I read with interest the article by Sapian *et al*[1] detailing their exhaustive and excellent epidemiological and clinical outcome research on the outbreak of melioidosis and leptospirosis among rescue workers during a rescue operation in the state of Pahang. The same episode resulting in the rare co-infection of melioidosis and leptopsirosis and its high mortality rate, was also similarly reported by Hin *et al*[2]. Both melioidosis and leptospirosis are endemic in the country. Leptospirosis can cause high grade fever, jaundice, liver dysfunction and renal failure. Melioidosis has been described as the great disease mimicker with non-septicaemic or septicaemic form of presentation. Melioidosis has the tendency for multi-organ involvement causing musculoskeletal infection, prostatic abscess, pneumonia, liver/spleen abscess and pericardial effusion[3]. Melioidosis is an infection with reported case mortality of 19-72% in the literature, difficult to treat infection needing prolonged combination antimicrobial therapy and its relapse and recurrence possibility rendered melioidosis, a very dreaded infection. The initial acute phase of treatment involves high dose intravenous ceftazidime or carbapenems followed by long term oral antimicrobial combination maintenance therapy. Various oral antimicrobial maintenance therapy has been tried such as amoxicillin–clavulanic acid, doxycycline and trimethoprim–sulfamethoxazole for 3-6 months[4,5] or longer, depending on the patient's clinical condition and satisfactory decrease in antibody titer. Hence, the cost of antimicrobial treatment is enormous.

Sapian *et al*[1] reported an overall case mortality of 70% with 6 confirmed melioidosis cases and 4 confirmed co-infection of melioidosis and leptospirosis cases. The 70% case mortality rate placed it among the highest reported in the literature, no doubt partly contributed by the unusual co-infection with leptospirosis. In view of the endemicity of both infections in the country, the high mortality rate and the high treatment cost, perhaps there is a role for antimicrobial prophylaxis for melioidosis[5] and leptospirosis for similar future rescue operation. Of course, the best antimicrobial combination is yet to be identified but the amoxicillin–clavulanic acid, doxycycline and trimethoprim–sulfamethoxazole regime can cover against both Burkholderia pseudomallei and Leptospira spp. Similar idea has been adopted for malaria prophylaxis. Pre and post exposure antimicrobial prophylaxis is a novel suggestion worth adopting into the Standard Operating Procedure of the relevant agency. Finally, we should applaud the authors' effort to highlight this public health issue with significant clinical importance.

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