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Correspondence

Tertiary trauma care centre & antimicrobial resistance

Sir,

I read with great interest the correspondence by Behera and Mathur[1]. Indeed, high levels of antimicrobial resistant bacterial infections continue to be a big problem in most of trauma care centres. This problem is sometimes caused by extraordinary circumstances such as earthquake and tsunami, and sometimes resulted by gaining the endemic features of these strains. Nosocomial infections related to multidrug resistant (MDR) *Acinetobacter* spp. were seen in hospital after the Marmara earthquake in 1999, and this strain had been endemic in our Intensive Care Units and Trauma Care Centre of hospital for a long time[2,3]. Therefore, trauma centres, treating critically ill patients, are high-risk areas as intensive care unit in the hospital. Two points in Behera and Mathur's article[1] are important. The first is high rate of extended-spectrum beta-lactamase (ESBL) activity in isolated Gram-negative enteric bacteria. Considering to antibiotic resistance of enteric bacteria reported in India in recent years, these ratios in the trauma care centre are not surprising[4]. Moreover, ESBL-producing isolates typically show greater than average resistance to other agents including aminoglycosides and fluoroqinolones. The most important reason, aminoglycoside, sulphonamide, and quinolone resistance genes with ESBL genes are localized on the same plasmid and, transferred with together. For this reason, multiple drug resistance (MDR) is common in ESBL-positive Gram-negative enteric bacteria[5]. The second important point is that despite the high quinolone and aminoglycoside resistance in Gram-negative enteric bacteria, the rate of MDR has not increased as expected. These findings suggest that enteric Gram-negative bacteria which do not show more clonal spread are still endemic in the trauma care centre. These results also suggest that important ventures can be done before rising MDR rates. Firstly, clonal spread should be determined and before applying antibacterial usage policies, effective infection control measures should be implemented. The institution of barrier methods without antibiotic restriction was reported in a French study[6]. All personnel in contact with patients infected or carriers of ESBL-producing *Enterobacter* spp. were required to use gowns and gloves. There was a decrease in the incidence of hospital acquired ESBL from 172 patients in 1992 down to 19 patients during 1995, despite increased use of cephalosporins[6]. For these pathogen having limited treatment options, infection control policies should be reviewed and more efficient precautions should be implemented, before the condition becomes more negative.

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