

Rhamnolipid production among clinical and skin isolates of healthy individuals of *Acinetobacter* species: The first report

Sir,

Acinetobacter species are gram-negative, non-fermentative coccobacilli that has emerged as an important nosocomial pathogen incriminated in outbreaks of hospital-acquired infections in recent times.^[1] Increasing reports of non-*baumannii* *Acinetobacter* spp.-associated infections are emerging nowadays. However, these bacteria are frequently refused as contaminants from environment, thus they are of little clinical importance.^[2] Choi *et al.*, (2006) stated that the mortality rate of other *Acinetobacter* spp. is not less than that of *A. baumannii*.^[3] Rhamnolipids (RLs) are glycolipids comprising of L-rhamnose and 3-hydroxylalkanoic acid and is produced by several bacteria, most importantly *Pseudomonas aeruginosa*. It is an important virulent factor as it can inactivate tracheal cilia of mammalian cells and reduce the phagocytic activity of macrophages by altering the F actin network.^[4] Virulence determinants of *Acinetobacter* spp. are ill-defined and, so far, previous literatures have not yielded any information regarding RLs-producing *Acinetobacter* spp. Hence, we planned to investigate the RL production in *Acinetobacter* spp. from clinical sources and from the skin of healthy individuals. We adopted Siegmund and Wagner plate method for the detection of RL of *Acinetobacter* spp.^[5] A total of 108 clinical isolates of *A. baumannii* and 28 commensal isolates of *Acinetobacter* spp. (24 *A. lwoffii* and 4 *A. junii*) from the skin of healthy individuals were assessed in this study. Out of 108 *A. baumannii* isolates, 38 were from endotracheal aspirates, 20 from blood, 15 from pus, 10 from urine, 8 from sputum, 5 from bronchoalveolar lavage, 5 from wound swabs, 3 from oropharyngeal aspirates, 2 from nasopharyngeal aspirates, and one each from diabetic foot ulcer and central vein tip. The results showed that 12/108 (11.1%) clinical isolates of *A. baumannii* and 2/28 (7.1%) *A. lwoffii* from the skin of healthy individuals

were positive for RL production. This is the first report of *Acinetobacter* spp. from clinical source and from the skin of healthy individuals producing RL. Although *Acinetobacter* spp. have become well-established nosocomial pathogens, not much is known about their virulence factor. This is the preliminary study conducted on *Acinetobacter* spp. It may be hypothesized that this RL production can also be one of the virulent factors of *Acinetobacter* spp. However, further studies need to be conducted on this virulent trait to elucidate the actual mechanism of *Acinetobacter* in relation with pathogenicity.

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