



Carbapenem Resistance and *Acinetobacter baumannii* in Senegal: The Paradigm of a Common Phenomenon in Natural Reservoirs

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Résumé en anglais

Incidence of carbapenem-resistant *Acinetobacter baumannii* is rising in several parts of the world. In Africa, data concerning this species and its resistance to carbapenems are limited. The objective of the present study was to identify the presence of *A. baumannii* carbapenem-resistant encoding genes in natural reservoirs in Senegal, where antibiotic pressure is believed to be low. From October 2010 to January 2011, 354 human head lice, 717 human fecal samples and 118 animal fecal samples were screened for the presence of *A. baumannii* by real time PCR targeting blaOXA51-like gene. For all samples positive for *A. baumannii*, the carbapenemase-hydrolysing oxacillinases blaOXA23-like and blaOXA24-like were searched for and sequenced, and the isolates harbouring an oxacillinase were genotyped using PCR amplification and sequencing of recA gene. The presence of *A. baumannii* was detected in 4.0% of the head lice, in 5.4% of the human stool samples and in 5.1% of the animal stool samples tested. No blaOXA24 gene was detected but six fecal samples and three lice were positive for blaOXA23-like gene. The blaOXA23-like gene isolated in lice was likely a new oxacillinase sequence. Finally, the *A. baumannii* detected in stools were all of recA genotype 3 and those detected in lice, of recA genotype 4. This study shows for the first time a reservoir of blaOXA23-like-positive gene in human head lice and stool samples in Senegal.

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Liens

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