Frequency of methicillin resistant Staphylococcus aureus in the noses of Malaysian chicken farmers and their chicken

ABSTRACT

The prevalence of methicillin resistant Staphylococcus aureus (MRSA) and methicillin sensitive Staphylococcus aureus (MSSA) carriage among poultry and poultry farmers in Malaysia is largely unknown. In the current investigation, chickens and chicken farmers from 30 chicken farms were screened for MRSA and S. aureus carriage. The genetic characteristics of the isolates were determined through multi locus sequence typing (MLST), Staphylococcus protein A (spa) typing and virulent gene profiling. The outcome of the study showed lack of MRSA and extremely low S. aureus prevalence (n=7 of 503, 1.4%) among chicken flocks and the poultry farmers in Malaysia. Staphylococcus aureus isolates belonged to 4 sequence types (ST): ST97 (spa type t359), ST1179 (t359), ST692 (t2247) and ST188 (t189). It can be concluded that MRSA/MSSA prevalence is very low among chicken and chicken farmers, human and chicken cross transmission of S. aureus does not seem to be a threat in Malaysia.

Keyword: Chicken; Malaysia; Mrsa; Staphylococcus aureus