# **Titre d’article**: Spa-typing and antimicrobial susceptibility of Staphylococcus aureus isolated from clinical sheep mastitis in Médéa province, Algeria

**Abstract :**

Mastitis causes significant economic losses in sheep flocks. Staphylococcus aureus is the most common microorganism isolated in ovine clinical mastitis. To characterize S. aureus causing sheep mastitis in Algeria, 252 samples of clinical mastitis cases were collected and subjected to Staphylococcus aureus isolation, isolates were identified by PCR-RFLP and antimicrobial susceptibility was tested by the disk diffusion method. Spa type and antibiotic resistance genes were determined by PCR. In total, 69 S. aureus were isolated (69/252; 27.38%). Twenty-two isolates (22/69; 31.88%) were susceptible to all tested antibiotics whereas all isolates were methicillin-susceptible (MSSA). A high frequency of resistance to tetracycline (33.33%) and penicillin (17.39%) was detected, respectively. The tet(K), tet(L), bla(Z) and erm(B) genes were detected in resistant isolates. Multidrug resistance was detected only in one isolate. Fourteen different spa types were detected, predominantly t1773 (43/69; 62.32%), t967 (4/69; 5.79%) and t1534 (4/69; 5.79%). Three new spa types were found having the following repeats successions (04-31-17-24-25-17-17), (04-31-17-24-17-17) and (07-23-12-34-12-12-23-03-12- 23). These results show that t1773 is the prevalent S. aureus spa type associated with ovine mastitis in Medea province and point out an emergence of antibiotic resistance of S. aureus isolates especially to tetracycline and penicillin. Further investigations will be needed to monitor the evolution of responsible epidemic strains and to improve methods for their control.