

Clinical, Bacteriological and Histopathological Aspects of First-Time Pyoderma in a Population of Iranian Domestic Dogs: A Retrospective Study (2012-2017)

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Abstract : The purpose of the present study was to investigate the prevalence of isolation, antimicrobial susceptibility and ERIC-PCR typing of staphylococci species from dogs with pyoderma. The study animals were 61 clinical cases of Iranian domestic dogs with the first-time pyoderma. The prevalence of pyoderma was significantly higher amongst adult (odds Ratio: 0.21; $p=0.001$) large breed (odds Ratio: 2.42; $p=0.002$) dogs. There was no difference in prevalence of pyoderma in male and females (odds Ratio: 1.27; $p=0.337$). The 'head, face and pinna' and 'trunk' were the most affected lesion regions, each with 19 cases (26.76%). An identifiable underlying disease was present in 52 (85.24%) of the dogs. Bacterial species were recovered from 43 of the 61 (70.49%) studied animals. No isolates were recovered from 18 studied dogs. The most frequently recovered bacterial genus was Staphylococcus (32/43 isolates, 74.41%) including *S. epidermidis* (22/43 isolates, 51.16%), *S. aureus* (7/43 isolates, 16.27%) and *S. pseudintermedius* (3/43 isolates, 6.97%). Staphylococci species resistance was most commonly seen against amoxicillin (94.11%), penicillin (83.35%), and ampicillin (76.47%). Resistant to cephalexin and cefoxitin was 5.88% and 2.94%, respectively. A total of 27 of the staphylococci isolated (84.37 %) were resistant to at least one antimicrobial agent, and 19 isolates (59.37%) were resistant to three or more antimicrobial drugs. There were no significant differences in the prevalence of resistance between the staphylococci isolated from cases of superficial and deep pyoderma. ERIC-PCR results revealed 19 different patterns among 22 isolates of *S. epidermidis* and 7 isolates of *S. aureus*.

Keywords : dog, pyoderma, Staphylococcus, Staphylococcus epidermidis, Iran

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