72° CONVEGNO SISVET

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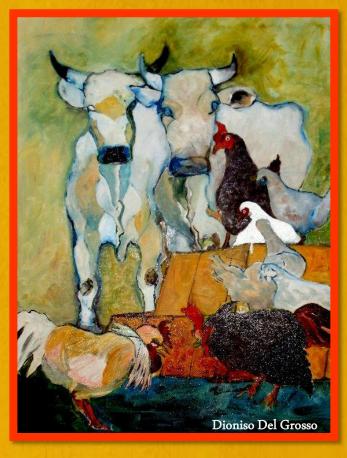






CENTRO UNIVERSITARIO SPORTIVO TORINO





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FELINE PYODERMA: CHARACTERIZATION AND ANTIMICROBIAL SUSCEPTIBILITY OF SKIN STAPHYLOCOCCUS SPP. POPULATION

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Feline pyoderma is a clinically entity that receives little attention as compared with canine pyoderma but may be more prevalent than previously thought. There are limited reports in the literature on this topic with more examining the flora of normal feline skin and oral cavity and only a few evaluating bacteria isolated from clinical lesions [1]. The aims of this study were to identify Staphylococcus spp. population associated with feline pyoderma and to assess its antimicrobial drug susceptibility. The animals were examined at the Vet. Hospital of Alfort (France) and evaluated by veterinary dermatologist. Samples were obtained from 41 domestic cats diagnosed with pyoderma. Skin lesions of all cats revealed bacteria in presence of concurrent inflammation, satisfying the definition of pyoderma currently accepted for dogs. All cats were client owned, and aged from 6 months to 10 years old (mean=4 and median value=3). None animal received antimicrobial drugs 3 weeks prior to inclusion in this study. Samples were obtained by swabs from 1-2 skin lesions/cat. Additional samples were collected from 3 sites without evidence of skin infection. All samples were analyzed to microbiological laboratory of Department of Veterinary Sciences of Turin (Italy) for Staphylococcus spp. identification. Bacteria were identified with PCR and sequencing [2]. S. aureus strains were characterized in order to assess the spa-type (software Ridom Staph Type), and the AST was performed on all isolates using the disk diffusion method (EUCAST) [3]. In total, Staphylococcus spp. was identified in 30 out of 41 animals with an occurrence of 37 isolates. The most frequently isolated organism was S. aureus (n=13), followed by S. pseudointermedius (n=11) and S. felis (n=8). Ten different spa-types were identified in S. aureus, associated with human clonal complexes. Fourteen staphylococcal isolates showed resistance at least 3 antibiotics and the majority of strains were resistant to beta-lactam drugs used in veterinary practice, included markers for methicillin-resistance (35% of strains). S. aureus remains the agent most frequently isolated from feline pyoderma as previously reported [4]. However, in this study S. pseudointermedius and S. felis were frequently isolated from feline skin infections. The real prevalence of S. pseudointermedius and S. felis in feline pyoderma may have been underestimated. This could be attributed to the fact that the traditional methods used in clinical microbiology laboratories would be likely to misidentify these isolates. Most data on antimicrobial susceptibility are related to canine infections and show an increase in the drug resistance of staphylococci strains. Our data suggest that feline staphylococci may have an antimicrobial resistance similar to that observed in dogs.

[1] Wildermut et al. Feline pyoderma therapy. Clin Tech Small Anim Pract, 21:150-156, 2006. [2] DTU food, 2009 http://www.crl-ar.eu/data/images/tc_april-2009/who%20meca-pcr_protocol%209-06-11.pdf. [3] http://www.eucast.org/ast_of_bacteria/disk_diffusion_methodology/. [4] Miller et al. in: Trattato di Small Animal Dermatology. VII ed. Elsevier, 2013.