



Annual Scientific Conference and Annual General Meeting of the European College of Veterinary Public Health

„Challenges for the world – opportunities for VPH“

Uppsala, 26-28 September 2016



P26: Studies on potential agents of mastitis in udders from small ruminants regularly slaughtered in Piemonte Region, North-Western Italy (part I): microbiological and pathological findings

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Background

Small ruminants dairy production is becoming increasingly important in Piemonte, where local DOP cheese are much appreciated. Subclinical mastitis is one of the most important health constraints in the small ruminants sector. A better understanding of these problems can greatly help local breeders and cheese producers to improve quality and productivity.

Objective

To investigate the presence of the most common agents of mastitis in small ruminants flocks from Piemonte Region, using the slaughterhouse as epidemiological surveillance point.

Materials and Methods

During the period 2013-2016, 235 udders were randomly collected from small ruminants regularly slaughtered at two abattoirs in Torino and Cuneo provinces, Piemonte Region. Eighty-nine samples were from macroscopically healthy udders (MH), while 146 udders presented macroscopical signs of mastitis (MM). One portion of the parenchyma was collected for histopathological examination, while the remaining tissue was used to perform bacteriological, antimicrobial, virological, and mycological tests.

Results

Histological examination of 146 MM udders allowed to identify: chronic non-purulent mastitis (34%); piogranulomatous (27.7%), chronic mixed (23.8%); acute purulent (1.7%) and granulomatous mastitis (0.9%). No histological lesions were detected in 11.9% of MM samples. Hundred ninety-one udders yielded positive bacteriological results: 130 were co-infections, caused by two and/or three different bacteria: the most numerous isolates were coagulase-negative staphylococci (CNS) (n=152) followed by environmental opportunist (n=137), "true pathogenic" (n=81) and "other bacteria" (n=35). Lentivirus (SRLV) infection was detected in 108 samples, *Aspergillus* spp. in 4, and *Mycoplasma mycoides* in 3.

Discussion and Conclusion

Lentivirus infections were most prevalent in goats and piogranulomatous were most observed in sheep. CNS infections are significantly associated with non suppurative mastitis. The results suggest that also clinically health udders of small ruminants may carry causative agents of mastitis. The information obtained can help to improve hygiene and quality of dairy products, and consequently consumers' health.

Perspectives

Further studies in other study flocks from other Regions are foreseen.