Department of Veterinary Medicine
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ABSTRACT

This present investigation was carried out in bovines presented in Department of Veterinary Medicine, DGCN COVAS from October 2018 to March 2020. A total of 575 bovines were presented in this period. Overall incidence of animal wise and quarter wise bovine mastitis was 15.65% and 10%, respectively. Chronic form was most incident (31.73%) followed by subclinical mastitis (23.33%). Crossbred bovines (66.67%) at 5 to 8 years of age (64.44%) during monsoon season (40%) were at the highest risk to get affected by mastitis. Bovines in their 3rd parity (33.33%), early lactation stage (62.22%) and having milk yield from 8 to 12 kg/day (35.56%) were more prone to get affected. Left hind quarters (29.13%) were affected more than other quarters. Risk factors such as poor hygiene, pendulous udders, using bedding material and inappropriate deworming of animals increased the risk of infection significantly ($p<0.01$). Cement and concrete floor, ectoparasitic infestation and lack of mineral supplementation in feed increased the risk of getting infection ($p<0.05$). CMT was most sensitive test among indirect tests to detect mastitis. Relative to microbial culture, most sensitive test for diagnosing subclinical mastitis was SCC (95.16%). Estimation of plasma protein was helpful in diagnosing subclinical and clinical forms of mastitis. Serum zinc and copper reduced significantly ($p<0.05$) in clinical mastitis. Ultrasonographic measurements of teat cisternae width and supramammary lymph node parameters were useful in diagnosing subclinical as well as clinical mastitis. Most commonly isolated bacterial pathogen was *Staphylococcus aureus*. Sensitivity was highest towards marbofloxacin followed by enrofloxacin, ceftriaxone, oxytetracycline while penicillin G and amoxyclav antibiotics were among most resistant antibiotics *in vitro*. Fat, SNF and protein decreased significantly in clinical mastitis ($p<0.05$) while only SNF was reduced significantly ($p<0.05$) in SCM. Significant ($p<0.05$) negative correlation of SCC with fat and lactose percentage was found in clinical mastitis. Treatment group including parenteral enrofloxacin with administration of intramammary enrofloxacin (250 mg per affected quarter) was having highest recovery rate.

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