

Prevalence of Sarcocystosis in Slaughtered Sheep and Goats

Authors : Shivan N. Hussein, Ihsan K. Zangana

Abstract : A total of 2358 sheep and 532 goats were examined for the presence of macrocystis of Sarcocystis. For microcysts, different muscle tissues were randomly taken from 118 sheep and 110 goats. Macrocystis were examined through naked eye inspection, while microcysts were examined microscopically by using histopathology, pepsin digestion, mincing & squeezing, and muscle squash method. Overall prevalence of macrocystis was 1.2% in sheep and 2.6% in goats. The intensity rate of the cysts was 4 cysts/ gram in sheep & 3 cysts/ gram in goats, respectively, while the overall prevalence of microcysts in sheep and goats was 96.5%. The infection rate in sheep was 96.6% and in goats was 96.4%. The total intensity rate of microcysts was 32.4 cysts/ field in sheep and 16.8 cysts/ field in goats, respectively. Histopathological examination found different shapes, size, wall thickness, and intensity rates of microcysts in muscle tissues of sheep & goats. The pathological reaction showed mild to moderate granulocytosis, and mononuclear cells infiltrated surrounding the microcysts with necrotizing and degeneration of myofibrils. The largest average size of spindle and round shaped cysts ($290 \pm 89.7 \times 76.1 \pm 10 \mu\text{m}$ and $88.8 \pm 10.3 \mu\text{m}$) in goats and ($127.2 \pm 18.9 \times 53.3 \pm 5.4 \mu\text{m}$ and $74.4 \pm 7.5 \mu\text{m}$) in sheep, was detected in the esophageal muscle. Statistically, there was a significant difference ($p < 0.05$) in the prevalence of macrocystis in sheep and goats, while no significant difference ($p > 0.05$) was observed in the prevalence of microcysts between both animal species.

Keywords : macrocystis, microcysts, intensity rate, measurement size

Conference Title : ICVCMVCM 2022 : International Conference on Veterinary Clinical Medicine, Veterinary Care and Management

Conference Location : Berlin, Germany

Conference Dates : May 23-24, 2022