

PRESENCE OF ZONOTIC SARCOCYSTIS SPECIES IN BELGIAN CATTLE

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Sarcocystis species are two-host, potentially zoonotic parasites. Cattle is the intermediate host of several Sarcocystis species, and their presence is linked to bovine eosinophilic myositis. This study investigated the occurrence of Sarcocystis spp. in Belgian beef and identified the different species. Heart and diaphragm samples were collected from 200 beef carcasses in a Belgian slaughterhouse. Samples were analyzed by the sedimentation method, and the collected sarcocysts were identified by molecular methods. Sarcocystis spp. were detected in 64% of the sampled carcasses. The proportion of heart and diaphragm positives was 25%. Separately, Sarcocystis spp. were found in 32% of the carcasses only in the heart and in 7% only in the diaphragm. Female dairy cattle had the highest Sarcocystis occurrence rate (91%) as well as more species types compared to female beef and male beef. Sarcocystis spp. were detected more often in the heart muscle than in the diaphragm among female beef cattle while in male beef cattle no significant difference was observed. The effect of age was not significant in male carcasses while the odds of finding sarcocysts significantly increased with age within the breeds in female carcasses. Six species were identified, the non-zoonotic *S. cruzi* was the most prevalent species and found in 56.5% of the carcasses, followed by *S. hominis* (21.0%), *S. bovifelis* (12.5%), *S. bovini* (2.0%), *S. hirsuta* (1.5%), *S. heydorni* (0.5%). Two and six identified species were observed in heart and diaphragm, respectively. *S. cruzi* was the most prevalent species in the heart while in the diaphragm *S. hominis*. As a conclusion, Sarcocystis spp. occurrence varies with age and breed of cattle. The most prevalent species is non zoonotic.