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Extended Abstract
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Prevalence of Gross Urogenital Lesions and Abnormalities in Female Goats Slaughtered at Dire Dawa Municipal Abattoir, Eastern Ethiopia

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Abstract

A cross-sectional study was conducted from November 2017 to April 2018 to estimate the prevalence of urogenital tract / organ damage and abnormalities in the slaughter of female goats at the Dire Dawa municipal slaughterhouse, Dire Dawa, in eastern Ethiopia. Morphopathological lesions and anomalies of the reproductive and urinary tracts of a total of 384 female goats were examined by incision and macroscopic examination by visual inspection and palpation. The study showed that there was an overall occurrence 17.4% of reproductive and urinary organ/tract abnormalities. Out this total of prevalence of 9.9% genital organ abnormalities were identified, among which ovarian hypoplasia was the reproductive abnormality with the highest occurrence (34.2%). And a total of 7.6% of occurrence of urinary lesion and abnormalities were examined. Renal calculi were the urinary organ abnormality with the highest occurrence (41.4%). This study found that 9.1% of 384 goats slaughtered at the Dire Dawa slaughterhouse were found to be pregnant due to a lack of specific ante-mortem inspection. The difference in the prevalence of urogenital tract / organ damage and abnormalities in the age of the animals was statistically significant ($p < 0.05$), but the difference was not statistically significant ($p > 0.05$) regarding the body condition of the goat. It can be concluded that morpho-pathological lesions are prevalent in goats that are brought to the abattoirs in the study area, which requires serious attention.

Keywords: Morpho-pathological lesions; Prevalence; Urogenital abnormalities

Materials and Methods

Study site: This study was conducted from November, 2017 to April, 2018 at Dire Dawa Administration (DDA). Dire Dawa is located in the eastern part of Ethiopia and lies between 9°27' N and 9°49' N latitudes and between 41°38' E and 42° 19' E longitudes, 515 Km from Addis Ababa, the capital of Ethiopia. The total area of the administration is 128,802 hectare and the administration shares boundaries with Somali National Regional States in the West, North and East and with the Oromia National Regional State in the South. Its altitude ranges from 960 meters above sea level (m.a.s.l) in the Northeast to 2450 m.a.s.l in the Southwest. The rainfall is bimodal and characterized by small rainy season from February to May and high rainy season from July to September. The dry season extends from October to January. The mean annual rainfall in the study area varies from 550 mm in the lowland Northern part to 850 mm in the Southern mountain ranges. The monthly mean maximum temperature ranges from 28.1°C, to 34.6°C. Likewise, the monthly mean minimum temperature varies from 14.5°C in December to 21.6°C in June

Study population: The study was conducted on a total 384 female goat slaughtered at Dire Dawa municipal abattoir. The goat production systems in the area are intensive, semi-intensive and extensive. During this period of the study age of female goats above 6 months were included.

Study design and sample size determination: The cross sectional study was conducted at Dire Dawa municipal abattoir. The study was conducted from a period of November, 2017 to April, 2018. As there is no complete study on the incidence of gross urogenital lesions and abnormalities on goats in the municipal slaughterhouse of Dire Dawa, the sample size for the study was estimated using the prevalence expected 50%, accepted error 5% and 95% confidence interval, according to the formula given by Thrusfield.

Conclusion

The present study showed high incidence of 9.9% and 7.6% of genital and urinary organ abnormalities, respectively. The present study also revealed 9.1% incidence of pregnant uteri on 384 goats slaughtered at the Dire Dawa slaughterhouse due to a lack of death inspection.This may have a direct impact on the production of goats by decreasing number of pregnant goat. Proper control and prevention strategies on genital and urinary organs abnormalities should be implemented to reduce infertility and reproductive inefficiency of goats as well as to prevent economic loss due to condemnation of edible organs like kidneys. Pregnancy testing method should be practiced at the slaughter house in order to decrease loss of pregnant animals due to slaughtering.

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