

## Comparative study on hepatic tissues of salmonella carrier status of selected food animals in eastern Ethiopia

Leta Wakeyo<sup>1</sup>, Adem Hiko<sup>1</sup>, Abdallahi Abdurahman<sup>1</sup> and Fanta Desissa<sup>2</sup>

<sup>1</sup>Haramaya University, Ethiopia

<sup>2</sup>Addis Ababa University, Ethiopia

Tissue Salmonella carrier stage of apparently healthy animal with or with-out pathological lesion and clinical sign are potential sources of infection and food contamination. A cross-sectional study was conducted to assess the occurrence of salmonella liver tissue, hepatic lymph nodes and gallbladders cattle, camels, goats, sheep and chicken Eastern Ethiopia. Chicken were purchased from the open market and farm but others were assessed at abattoirs. A total of 225 animals were sampled and hepatic tissues were tested for salmonella. Out of the total, 102(45.3%) were positive for salmonella. Hepatic tissues salmonella were 66.7%, 58.2%, 43.4%, 40.4%, and 17.7% in poultries, cattle, sheep, goats and camels, respectively showing significant difference ( $p < 0.05$ ). It was 9.6 fold (95% CI=3-30) in poultry and 6.7 fold (95% CI=2.4-18.8) in cattle than in camel. Similar occurrence of salmonella in animal age adult (42.5%) and old (50.6%) were observed. Significantly higher occurrence of salmonella at Haramaya University (71.1%, OR=9.8, 95% CI=2.7-40.7) and Haramaya town (46.4%, OR=3.4, 95% CI=0.9-12.9) than Aweday (29.1%) and Harar (20.0%) were observed. Salmonella were 28.4%, 20.4% and 28% in hepatic tissue, hepatic lymph node and gallbladder respectively. Of the total 102 Salmonella positive animals, combined tissue infections were observed. The majorities (86.3%) hepatic tissue (95.1%) hepatic lymph node and (94.1%) gallbladder). Salmonella positive hepatic tissues were grossly normal. Salmonella in hepatic tissues of food animals give a warrant to attempted the carrier stage which could shade being of food safety, public health and diseases epidemiology risk.