



Ultrasonographic and histopathological evaluation of hepatic lipidosis in sheep with cobalt deficiency

El-Khodery SA1, Hussein HS2, Metwally NS3, Nassif MN4, El-Boshy ME5, Galbat SA6

Abstract:

The aim of the present study was to describe the ultrasonographic and relevant histopathological changes in Ossimi sheep with hepatic lipidosis caused by cobalt deficiency. A total of 34 animals with illthrift and anemia were studied. Of all, 23 were confirmed to have low serum cobalt and Vitamin B12 levels ($0.24 \pm 0.09 \mu\text{mol/l}$ and $0.15 \pm 0.07 \mu\text{g/l}$, respectively) compared with control ($0.640 \pm 0.34 \mu\text{mol/l}$ and $0.31 \pm 0.11 \mu\text{g/l}$, respectively). Sheep were examined with a real-time ultrasound system using 5-MHz linear and convex transducers. Ultrasound guided liver biopsy, blood and serum samples were obtained from each animal at examination. Ultrasonographic-hepatic changes were recorded in 21 (91.30%) out of 23 sheep with cobalt deficiency. On the bases of histopathological findings, diseased sheep were recorded to have mild (n=5), moderate (n=7) and severe lipidosis (n=11). Ultrasonographically, severe lipidosis showed diffuse increased echogenicity of hepatic parenchyma. However, focal hyperechic lesions with various shape, size and position were also visualized in mild and moderate lipidosis. Liver size was increased significantly (P

Keywords:

Keywords: lipidosis, sheep, Ultrasonography, Cobalt, pathology

Published In:

Online Journal of Veterinary Research© , Volume 12 (2) :23-32, 2008 , 10