Some Clinicopathological, Pathological and Immunohistochemical Studies on Tissue Samples Collected From Cattle, Sheep and Goat Fed on Spoiled Silage Containing Aflatoxin B1

A.S. Galbat, 1 2A.A. Madboli, 3A. El-shemy and 2A.H. Soror 1Department of Animal Medicine, Assiut University, Faculty of Veterinary Medicine, New Vally branch, New Vally Governorate, Egypt 2Department of Animal Reproduction and Artificial Insemination, Veterinary Research Division, National Research Centre, Giza, Egypt 3Department of Parasitol

Abstract:

Abstract: The aim of this study was confirming the gaining access of aflatoxin B1 (AFB1) into testis and uterus of animals fed on spoiled silage containing aflatoxins. Seven silage samples monthly collected for 3 months from silos in Menofia governorate Egypt then pooled into three main samples. HPLC was quantified AFB1 in examined samples as 0.78, 0.8 and 54 μg/kg respectively. A history of ten cows, four bulls, three ewes and three goats were fed on the same spoiled silage containing aflatoxins for three months were recorded till slaughtered at abattoir. Tissue and serum samples were collected for clinicopathological and histopathological changes. Liver and kidney function was significantly increased; however glucose level was significantly decreased in examined animals. Immunohistochemical (IHC) examination detect and localize the AFB1 antigen in spermatocytes, Sertoli cells, epididymis in three bulls; Also detected in endometrium of seven cows and one goat. Liver and kidney showed high antigen intensity in nine cows. Degeneration and necrosis of spermatocytes and epididymis were occurred in bulls. Nine cows showed lymphocytic ulcerative endometritis. Examined ewes and goats showed mild endometritis. Hepatocytic hyperchromatosis was noticed in seven cows and periportal lymphocytosis was seen in the liver. Conclusion; AFB1 existence in bad stored silage leading to several adverse effects and can gain access to the genitalia of cows and bulls; in turn affect in the reproductive performance.

Keywords:

Key words: Aflatoxins Clinical Pathology Immunohistochemistry Pathology

Published In: