



Outbreak of Epistaxis (nose bleeding) in a Large Dairy Herd Due to Contamination of Food with Fungal Toxins

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Objectives: During two months in January and February, 5 calves and heifers aging 7 to 15 months and 9 cows aging 2.5 to 7 years old suffered from the nasal (9 heads) and oral (2 heads) and vaginal (1 head) bleeding. 4 cows who were slaughtered moribund from heavy and or continued bleeding. Other 10 heads that received vitamin K3 and compounds containing calcium and vitamin A within two to four days were recovered from which 4 heads showed bleeding again in 3, 6, 13 & 27 days led to slaughter of two cows.

Materials & Methods: Inspection of food warehouses revealed fungi in various feed including barley and rapeseed meal. Sorbent with a fungal toxins tend to attract certain Zearalenone were added to the ration. After one week until the end of monthly consumed it outbreak of disease stopped and with taking it off individual cases of bleeding with less intense observed and with the end of the contaminated diet consumed the problem was completely resolved.

Results & Conclusion: In hematologic test with 10 affected and 10 apparently healthy animals, the number of platelets and other blood factors was in the normal range. Measuring liver enzymes AST, ALT, ALP, CPK, GGT in the two groups was not with the case of abnormal, but measuring indicators of coagulation, the amount of TT in both groups was the same, amount of PT rate 6.7% and the amount of PTT rate% 40.46 in patients compared to healthy animals was increased. Food in related to fungal toxins was analyzed & the amount of zearalenone in barley 62.5 ppb, in rapeseed meal 100 ppb, and in the TMR 200 ppb declared. In the point of occurrence of disease in different ages, intake of contaminated food and results of analyzed it, the results of treatment and prevention, normal ranges of platelets and liver enzymes and coagulation parameters changes, one can conclude that first, the possibility of genetic disorder, malfunction in bone marrow, DIC formation and other sufferers is ruled out and their second major factor is that although fungal toxins was not causing pathologic disorders such as liver degeneration or necrosis but cause dysfunction in coagulation pathways enzymes.

Keywords: Epistaxis, mycotoxins, cattle.

A Seasonal Study on Serum Copper Levels of Sheep and Influence of Antagonistic Minerals of Pastures in Masjed Soleyman, Iran

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Objectives: Copper deficiency in ruminants occurs either as a primary or as a secondary deficiency. Most of the copper deficiencies in livestock which occur naturally are conditioned by the presence of dietary factors that interfere with the absorption or utilization of copper by the animal. The study was conducted to determine the copper status of the sheep and to evaluate the effects of antagonistic minerals in pastures in Masjed Soleyman town.

Materials & Methods: In this study the copper levels in the serum of 440 and liver of 30 sheep were determined. Copper, molybdenum and iron contents of soils and pastures as well as sulphur content of the pastures were also determined. To determine the concentration of copper, molybdenum and iron, an atomic absorption spectrophotometer was used and the levels of sulphur were determined by turbidimetric method.

Results & Conclusion: Mean serum copper levels of sheep in spring, summer; autumn and winter seasons were 0.58, 0.55, 0.20 and 0.45 µg/ml respectively. Mean liver copper levels of sheep was 74.40 mg/kg and mean serum copper of lambs was 0.53 µg/ml. The means copper, molybdenum and iron content of soil were 34.94, 18 and 1051.84 mg/kg respectively. The mean pasture copper, molybdenum, sulphur and iron levels were also 12.09, 12.17, 443.75 and 573.44 mg/kg respectively. The results of this study indicate that a secondary copper deficiency due to the high molybdenum content of soil and pasture exists in the area.

Keywords: Copper, Sheep, Serum, Molybdenum, Sulphur