

## The Effect of Excess Sulphur on Najdi Sheep

**Authors :** Fatima Al-Humaid

**Abstract :** This research work was done to investigate the cause of paralysis in Najdi lambs born in certain farms where the drinking water and diet contained high concentrations of sulphur. The drinking water in these farms was obtained from deep bore wells drilled in the farm. The lambs developed paralysis of the hind limbs at the age of 4-6 weeks and their condition deteriorated continuously until they finally died. The appetite and suckling ability remained good throughout the course of the disease but when the lambs were completely unable to move and reach for the udder, feed and water they died. Postmortem examination of the brain of paralyzed lambs showed that it was liquefied. When the brain was examined histologically, a liquefactive necrosis was seen in the form of cavities in the nervous tissue. Similar histologic picture was seen in the spinal cord of the affected lambs. Analysis for the mineral content of the fodder showed that the concentration of sulphur was 21.6  $\pm$  3.4 g/kg DM which is considered very high for the nutrition of sheep. Analysis for the concentration of copper and selenium in the feed showed that the concentrations of both were normal. This excluded diseases such as swayback which is caused by copper deficiency and white muscle disease, which caused by selenium deficiency. Both of these two last diseases are characterized by paralysis of lambs.

**Keywords :** brain histology, sulphur poisoning, Najdi sheep, veterinary medicine

**Conference Title :** ICASVM 2014 : International Conference on Animal Science and Veterinary Medicine

**Conference Location :** Penang, Malaysia

**Conference Dates :** December 04-05, 2014