

Zinc and Manganese Status in Liver and Blood Serum of Camels, From West Omdurman-Sudan

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ABSTRACT

A study was conducted to assess zinc and manganese status in liver and blood serum from male and She-camels (*Camelus dromedarius*) from west Omdurman-Sudan. Twenty samples of liver and twenty samples of blood serum were collected from She-camels and males (4-6) year's age (ten samples from each). Zinc and manganese levels in liver and blood serum were analyzed by using atomic absorption Spectrophometer, (Model Spectr AA 220 F S). The result showed that mean value of dry matter in liver of camels was (32.3 ± 0.34 %) while Ash content in liver of camels was ($6.5 \pm 0.02\%$). dry matter content in liver was significantly ($P < 0.5$) higher in She-camels than males, whereas the Ash content was not significantly different. The average of liver manganese level was (12.8 ± 0.1 ppm), while zinc level was (107.3 ± 8.6 ppm), whereas manganese levels in blood serum was (0.05 ± 0.002 $\mu\text{g} / 100\text{ml}$), and zinc level was (0.019 ± 0.002 $\mu\text{g} / 100\text{ml}$). Manganese level in liver was significantly ($p < 0.01$) higher in She-camels than males, whereas manganese serum level was not significantly different. Zinc level in liver of males was significantly ($P < 0.5$) higher than She-camels. On the other hand, serum of zinc level was significantly higher in She-camels than males. However the result showed that high level of zinc in liver in both She-camels and males, it seems that liver stores zinc and manganese. While the low levels of manganese and zinc in blood serum in She-camels and males and this may be due to content of these elements in natural pasture that reflected in tissues of camels. So it is recommended to supplement minerals to avoid this elements deficiency.

Keywords: Manganese, Zinc, Serum, Liver, Camels