

Histopathological evaluation of Swiss mice treated with oxide niobium.

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The Niobium is a chemical element and used in dental prosthesis, femoral and cables. The aimed of this studied was the Histopathologic analysis of the liver of swiss mice treated with niobium oxide. In the investigation, it were used 20 mice of Swiss strain, male adults. The animals were subjected to a single dose of 0.1 mL of a sterile solution of niobium oxide to 3%, and 0.1 mL of saline for animal's control, inoculated via intra peritoneal. After inoculation, the animals were kept alive by three, seven and twelve days. The liver was removed from each animal for histopathological analysis after each period of treatment and they were evaluated by the technique of HE. We observed increase of Kupffer cells and changes in hepatocytes with clear hydropic degeneration and mild fatty metamorphosis in animals kept alive for three and seven days of treatment with niobium oxide (3%). The animals kept alive for twelve days and treated with niobium oxide (3%) showed preserved liver cells and other cells in stages of mitosis. The animals subjected to this metal for three and seven days showed hydropic degeneration in hepatocytes rather obvious. This framework is not progressive, as in the treatment group of twelve days there is an evident hepatic regeneration once cells in stages of mitosis were seen. Thus, the niobium oxide could have hepatotoxic character in the acute phase of the inflammatory process. This mechanism of cell injury and regeneration is being investigated for the understanding of the effect of niobium in liver cells.

Keywords: niobium oxide, mice, hepatocytes.