NBelyax is a novel functionalized nanoparticle that works against a large number of different pathogens. Nanotoxicology studies are an strategy to evaluate the effects over a whole organism. The aim of this study was to determine if NBelyax is able to produce toxic effects in freely moving rats. Wistar male and female rats (280-320 g) were administrated with NBelyax in a different concentrations during 28 days, according OECD 407 test. This method provides information on health hazard likely to arise from exposure to test substance via oral administration of one dose level daily during 28 days. At least 10 animals (5 female and 5 male) were used for each dose level. Clinical and functional observations, body weight and food/water consumption measurements, hematology and clinical biochemistry; as well as necropsy and histopathology of lungs, liver, heart, kidney and gonads results, did not shown toxic effects in the experimental groups. Blood hematology and biochemistry parameters did not shown variations between controls and experimental groups. Also, the rat behavior was not changed. These preliminary results suggest that NBelyax may not produce adverse effects in the organism. In addition, more test and investigations are necessary to determine if there are any chronic effects of Nbelyax in a protracted periods of time.

Keywords: Nanotoxicity, Nanoparticle, pathogens

References:


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