

Biochemical Assessments of the Effects of Crude Oil Contaminated Diets Wistar Rats

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Abstract : A research was carried out to assess the biochemical effects of crude oil contaminated cat fish on selected rat kidney function tests. Thirty-six (36) albino rats (*rattus novergicus*) were grouped into six (6) of (6) in each group. The rats in group one served as control and they were placed on feed formulated with catfish cultured in borehole water while those ones from group 2 to group 6 were placed on feed formulated with catfish exposed to various concentrations of crude oil (0.1%,0.25%,0.5%,0.75% and 1% respectively).The results obtained showed that there was a significant increase in serum concentration of creatinine, Urea, sodium and potassium ions in the kidney of experimental rats when compared with the control. This may be interpreted to mean possible adverse effects on the kidney. Several studies have been done especially on the biological effects of crude oil in fish. These include Direct Lethal Toxicity, Sub-Lethal disruption of physiological and behavioral activities, interference with feeding and reproduction, direct coating or tainting of fish, effect of entry of hydrocarbons into the food web as well as alteration of biological habitat. The present study attempts to assess the effects of crude oil contaminated diet on rat kidney by carrying out some kidney function tests like determination of serum sodium and potassium ions by flame photometry method, determination of serum urea and determination of serum creatinine.

Keywords : crude oil, serum urea, creatinine, wistar rats

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