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Project – 2020

Project guide: Dr. Rekha D Kini

Potential role of vitamin C as an antioxidant on Bisphenol(BPA) induced oxidative stress in wistar rats

Environmental pollution with hazardous chemicals and metals can arise from natural as well as anthropogenic sources oxidative stress. . Bisphenol (BPA) Used in manufacture of hard plastics, water bottles, adhesives, paint, etc., and enters body through reusable bottles, food packaging materials, liquid of canned vegetables, dental sealants. BPA waste enter environment during : Handling, loading and unloading, heating. Vitamin C is an important antioxidant known to decrease damaging effects of reactive oxygen species. The study was aimed to explore the potential role of vitamin C as an antioxidant on Bisphenol(BPA) induced oxidative stress in wistar male rats. Healthy 60 Adult male albino rats - weight between (150-200) g . Bisphenol(25mg/kgbw/day) dissolved in olive oil given orally for 3 weeks to the Bisphenol treated group . and Bisphenol with Vitamin C was administered to one group . At end of experiment, animals were anesthetized by giving Ketamine (60 mg/kg Bw). Blood samples were collected from heart with the help of a 2-ml syringe for measuring serum SGPT, SGOT and ALT and testosterone level in all groups . Laparotomy was performed and reproductive organs were exposed, testicular and liver tissues were stored in 10% formalin saline and processed for histopathological studyA part of the tissues was used for estimation of MDA and GSH level in all the groups. Biochemical parameters was assayed Results of this study revealed that oral BPA administration induced adverse oxidative effects on the exposed animals as evidenced by recorded abnormalities in investigated biochemical parameters. In addition, there were histopathological alterations in investigated organs. Treatment with vitamin C provided a protective antioxidant role against such adverse effects

Keywords: Bisphenol, liver , free radicals