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(54) **SYSTEM FOR EVALUATING CHEMO-PREVENTIVE POTENTIAL OF PHC AND ITS PREPARED CHITOSAN NANOPARTICLES**

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(57) **ABSTRACT**

A system for treating cancer and evaluating chemo-preventive potential of PHC and its prepared chitosan nanoparticles is described. The rats are divided into eight groups, from which group 1 is served as normal control, and group 2-8 are given single dose of DEN and repeated dose of CCl₄, wherein freshly prepared solution of DEN in normal saline is used for the induction of HCC in rats by administering 200 mg/kg, i.p., PHC (2:1:1) in normal saline suspension to administer at doses of 900 mg/kg, wherein serum and tissue samples are collected after anesthetizing overnight fasted rats using intraperitoneal administration of thiopentone sodium at a dose of 40 mg/kg, wherein the collected serum and tissue samples is treated and thereby the chemo-preventive potential of PHC (2:1:1) and its prepared chitosan nanoparticles is evaluated upon determining liver markers, antioxidant parameters, total bilirubin, protein, lipid peroxidation, and liver cancer biomarkers.

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