Study of Hepatoprotective effect of methanolic extract of Tanacetum parthenium on CCl4 induced liver damage in rat

Abstract

Background and objectives: *Tanacetum parthenium is the one of the native plants that used for treatment of migraine and Arthritis in past years. The extract of Tanacetum parthenium(TPE) has some constituents such as sesquiterpens, flavonols and flavonoids that capable acts against migraines and Arthritis. The aim of this study was to investgate the antioxidant and hepatoprotective effects of TPE aganst CCl4 induced liver damage.*

Methods: *36 male wistar rats were randomly divided into 6 groups each group 6 rats. Group 1(normal control): administered with normal salin oraly for 14 days Group 2(control CCl_4): administered with normal salin oraly for 14 days Group 3: administered with TPE 40mg/kg oraly for 14 days Group 4: administered with TPE 80mg/kg oraly for 14 days Group 5: administered with TPE 120mg/kg oraly for 14 days Group 6: administered with silymarin 100mg/kg oraly for 14 days. All of groups exept group 1 recived 1.5ml CCl4 (50:50 disolved in olive oil) on 14^{th} day.*

Results: *administration with CCl4 alone capable to increased serum level of ALT, AST, ALP, LDL, VLDL, TG, TC, Urea, SOD and GPX and decreased serum level of HDL and CAT when compared to control group. But Pretreatment with TPE(40mg/kg,80mg/kg and 120mg/kg) capable significantly redused serum level of ALT, AST, ALP, LDL, VLDL, TG, TC, Urea, SOD and GPX and increased serum level of HDL and CAT when compared to control group.*

Conclusion: *the results of this experiment showed that TPE have potent to protect liver against oxidant materials and free radicals produced through CCl4 metabolism.*

Keywords: *Tanacetum parthenium, Carbon tetracholoride, Liver damage, Antioxidant*