

## **EFFECT OF DISULFIRAM/COPPER GLUCONATE COMBINATION ON HEPATIC FUNCTION AND BLOOD CHOLESTEROL LEVELS IN RATS**

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### **ABSTRACT**

This study sought to determine the chronic toxicological effects of the disulfiram/copper gluconate drug combination in rodents in a 90 day dose and time dependent study. A total of 88 rats weighing between 260-300g were used. The rats were divided into eleven groups consisting of 8 rats each with Groups 1 and 2 serving as control groups. The control groups received normal saline as placebo and 99.5% dimethyl sulfoxide (DMSO) (Solvent control). The drugs were administered as 1/5<sup>th</sup>, 1/10<sup>th</sup> and 1/20<sup>th</sup> of the LD<sub>50</sub> of 373mg/kg and 75mg/kg for disulfiram and copper gluconate respectively. Dosing was done daily with that of the combination given 12hours apart. Blood samples were collected via cardiac puncture in heparinised bottles, centrifuged and the serum decanted on days 30,45,60 and 90 for analysis. Hepatic function parameters showed a significantly (P < 0.05) dose and time dependent increase in the liver enzymes (AST,ASP,ALP) and a significant(P<0.05) decrease in total protein. It concluded that the DSF/CG combination showed a synergistic dose dependent hepatotoxicity.