

## **BIOCHEMICAL CHANGES INDUCED BY HERBICIDE SENCOR IN ALBINO RAT *Rattus norvegicus* - ALKALINE PHOSPHATASE AND TRANSAMINASES CHANGES IN PLASMA (LIVER FUNCTION)**

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### **ABSTRACT**

Data showed non significant increases in ALT and AST activities throughout the tested periods when rats treated with 1/4 and 1/2 LD<sub>50</sub> Sencore herbicide .except at 5th week of the test , 1/2 LD<sub>50</sub> induced a significant increases in ALT and AST activities .Regarding to the ALP activity ,1/4 LD<sub>50</sub> induced a non significant decreases at 1<sup>st</sup> ,2<sup>nd</sup> and 4<sup>th</sup> week while at 3<sup>rd</sup> and 5<sup>th</sup> week showed a non significant increases at the same time 1/2 LD<sub>50</sub> induced a non significant increases except at 2nd week, there was non significant reduction in plasma ALP activity. Regarding to the bilirubin level ,1/4 and 1/2 LD<sub>50</sub> induced a non significant increases for all the tested periods except at 2<sup>nd</sup> week with 1/2 LD<sub>50</sub> exhibited a significant increases in total bilirubin.

### **INTRODUCTION**

The rising consumption of currently used pesticides in developing countries has led to a number of problems such as insect resistance, toxicity to non-target organisms, environmental pollution, and the health hazards associated with pesticide residues. Accordingly, the side effects of herbicides toxicity on different animals were investigated. El-Deeb (1994) reported cyanox and lebaycide avicides induced a significant increases in the activity of serum alanine and aspartate amino transferase for house sparrow and pigeon .Abdel-Rahim *et al.* (1997) studied the effect of parathion on male albino rat and said the hepatic toxicity of parathion was evident through the hyperactivation of transaminases indicating a hepatic disorder and damage . El-Mahrouky *et al.* (2001) found that a gradually significant increases in plasma GOT,GPT and a constant significant decreases in ALP and total protein throughout the all experimental periods when house sparrow and palm dove treated with 1/4 LD<sub>50</sub> Methomyl (insecticide).

The present work aims to illustrate effect of sub-lethal doses (1/4 and 1/2 LD<sub>50</sub>) Sencor herbicide on alanine amino transferase (ALT), A spartate amino transferase(AST), Alkaline phosphatase (ALP) and total bilirubin in plasma of male Albino rat *Rattus norvegicus* at intervals 1,2,3,4,5 weeks post.treatment.

### **MATERIALS AND METHODS**

**The commercial herbicide :** Metribuzin was obtained from Monsanto Company.

**Chemical name:** 4-amino -6 (1,1dimethyl)- 3-methylthio-1,2,4-triazin – 5(4H)

**Trade mark :** Sencor