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GENOTOXIC EFFECTS OF ALPRAZOLAM IN WHITE ALBINO RATS

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ABSTRACT

Anti-depression drugs become modern commonly used in last decades used as anxiolytic and anticonvulsant dieses, the present study aimed to evaluation cytotoxic and genotoxic accumulation effect of alprazolam in white albino rats using cytogenetic assays like chromosome malformation, cells proliferation, plastindex and micronuclei formation in bone marrow cells of rats. The results show that drugs cause increased in aberration of chromosomes, plast cells and micronuclei formation. Also causes decreased in cell proliferation compare with negative andpositivecontrols.

Keywords: **Alprazolam, Chromosome Malformations, Cells Proliferations, Plastindex, Micronuclei Formation**

INTRODUCTION

In last decade we found that depression dieses was increased in the world, thus different anti-depression drugs produced to treat various depression and anxiety neurosis . alprazolam or Alprazolam is one of important drugs using to treat Anxiety states, mixed anxiety- depression,neurotic or reactive depression, panic related dis orders and essential action tremors **[1]**.

Alprazolam is one of benzodiazepines family that contain large number of derivatives, the chemical name of alprazolam is[8-chloro-1-methyl-6-phenyl-4H-(1,2,4) triazolo [4,3a] [1,4] benzodiazepine] **(Figure 1)**, it isa short-acting benzodiazepine used to treat