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**Document Title** : Genotoxic Effect of Oxicam Drug and Antigenotoxicity of Ginger plant Extract on Root Tips of Vicia faba

التأثير السمي الوراثي لعقار الاوكسيكام والسمية الوراثية المضادة لمستخلص نبات الزنجبيل على القمم النامية لجذور نبات الفول

**Document Language** : Arabic

**Abstract**

: In the present study the genotoxicity of oxicam the (anti inflammatory) drug was investigated . Determination the ability of antigenotoxicity ginger extract as antigenotoxicity through the single and combination of on mitotic division on root tips of Vicia faba plant. In this study the treatment of meristemetic cell of Vicia faba were as follow: 1- Treatment with oxicum alone 2- Treatment with extract of ginger plant alone 3- Combined treatment of oxicam and extract of ginger plant with different concentrations (10- 20 - 40 mg/L) and different exposure periods (6- 12-24 hours). The basic fuchsin stain was used for plant cell staining and for the microscopical examination to follow the assayed for mitotic index and chromosomal aberrations during the mitotic division. The results obtained in this study were : 1- The percentage of mitotic index decreased in single and combined treatments of both oxicam and ginger extract at the highest concentrations during different exposure periods, while at the low concentrations (10-20 mg /L)it did not. 2- The single and combined treatments of oxicam and ginger extract decreased the percentage of normal mitotic stages, where as the percentage of abnormal mitotic stages increased as compared with the control. 3- All used concentrations and exposure periods during the different treatments led to increase of mutation frequency and chromosomal aberrations and these aberrations included stickiness, fragments, breakage , bridges, star shape , colicishin metaphase , lagging, disturbance and micronuclei. 4- The single treatment of the oxicam led to high genotoxicity when compared with the treatment of ginger extract alone. 5- The combination effect did not bring about antiagenstic effect in comparison with the single treatment by oxicam drug, but it showed synergistic effect.

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