Abstract

The popular consumption of vegetable preparations, should be endorsed by studies of genetic activity, stiller when interests to recommend them as agents able to protect to the DNA of the harmful action of environmental pollutants. Cymbopogon citratus (DC) STAPF (Caña Santa) is a vegetable species of popular consumption with therapeutic or dietary ends, in Cuban. Additionally, antimutagenic properties of this plant have also been reported. In this paper, antigenotoxic property of C. citratus against four model mutagens: Etilnitrosourea (ENU), Metilmetanosulfonato (MMS), Juglona (JG) and 7-12-dimethylbenz[a]anthracene (DMBA), have been studied. Different concentrations of Caña Santa’s decoction in cotreatment with each mutagen (chronic exposition) were applied to Drosophila melanogaster larvae and the frequency of mosaics eyes in the mature flies was registered (SMART assays). The Caña Santa’s decoction was effective reducing mosaic eye induced by the mutagens in a concentration-depending manner. The dose-effect curve obtained with each mutagen suggest that the antigenotoxic action of Caña Santa involve different protection mechanisms of ADN.

Keywords

Cimbopogon citratus, Antigenotoxicity, ENU, MMS, JG, DMBA, Vegetable extract.