

PÔSTER DIGITAL

Other themes related to Primary Health Care/General Practice/Family Medicine

Analysis of genotoxic and cytotoxic of stryphnodendron adstringens by Allium cepa test

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Introdução: Medicinal plants are used by rural communities around the world, but many of these are used without knowledge about the presence of genotoxic and cytotoxic substances in it. The *Stryphnodendron adstringens* plant is a typical legume known as “Barbatimão”. It is considered as a medicinal plant because of its healing action, anti-inflammatory, hemostatic, antiseptic, analgesic and antidiarrheal.

Objetivos: Evaluate the behavior of the roots of *Allium cepa* when treated with extract of *S. adstringens* and watch the mitosis of their cells. This way we analyzed the influence of the substances present and the impact of its use in rural health.

Metodologia ou Descrição da Experiência: After removal of bark and dried onions cataphylls, each was placed in a disposable cup. In each one of them was placed a particular solution that was in contact with the region hood onion. After 3 days, the roots grew, the onions were removed and immersed in fixative solution left for 24 hours. Then, a laboratory slide was prepared from each sample. The slides were observed under an optical microscope, and analyzed 1,000 cells each. We made a comparison between the slides considering the amount of interphase cells, dividing cells, chromosomal abnormalities including nuclear alterations and modifications, and mitotic index.

Resultados: We observed an increase in the number of anomalies in the cells treated by Barbatimão. We realized that 2.2% of cells showed abnormalities in the treatment versus 0% of abnormalities in the negative control. The mitotic index in the treatment was reduced 51.9389% as compared to the negative control. This way, we observed that rural communities might be submitted to the genotoxic and cytotoxic effects of the plant.

Conclusão ou Hipóteses: The increased number of anomalies in the treatment shows the genotoxic effect of the extract of *S. adstringens*. The reduction in mitotic index generated in the treatment suggests that the extract has cytostatic activity.

Palavras-chave: Cytotoxic Activity. Genotoxic Effect. Medicinal Plants.