

Poster

Mycoflora present in medicinal plants from Lara State, Venezuela

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Introduction. Alternative medicine is a very important economic issue nowadays. However, it may imply a high risk for the health if the pre- and post-harvest management is not adequate. Colson and De Broe (2005) indicated the latent risks for development of acute damage to certain vital organs of the human body due mainly to the low standards in quality control. Kneifel et al. (2002) reviewed the association of microbial contamination with medicinal plants and talked about the environmental and human factors that could eventually compromise human health. In Venezuela the commercialization of natural herbs for medicinal purposes is not regulated by law, which means that everybody can make a living in this business. We observed that the places where the plants are maintained are in the street or in dirty spaces without any asepsis. This work is a preliminary approach to a larger study.

Objectives. To determine the possible fungi contaminants present in the most important medicinal plants sold in popular markets from Barquisimeto, Lara State, Venezuela.

Methods. Dry samples of the five most economically important medicinal plants were cut in 5 pieces of 5 cm, and they were placed in Petri dishes with agar-water. Once the mycelial development was initiated, five repetitions were made. Each formed colony, was transferred to new Petri dishes with potato-dextrose agar. The identification of the fungi was made using the compound microscope.

Results. Some of fungi found in horse tail were *Rhizopus* sp and *Cladosporium* sp; in ruta, *Aspergillus* sp, *Penicillium* sp, *Alternaria* sp, *Fusarium* sp, *Trichoderma* sp, *Rhizopus* sp and *Cladosporium* sp; in good grass, *Rhizopus* sp and *Nigrospora* sp; in rosemarinus, *Alternaria* sp., *Nigrospora* sp., and *Fusarium solani*; and in altamisa, *Penicillium* sp., *Alternaria* sp., *Rhizopus stolonifer* and *Bipolaris maydis*.

Conclusion. There is a potential hazard in the management and consumption of the main medicinal plants commercialized in popular markets in Barquisimeto, Estado Lara, Venezuela, due to the high variability of microorganisms associated with the plants and the lack of training of the people selling the herbs.

Keywords: fungi, herbs

Selected References

1. COLSON C. Y M. DE BROE. 2005. Kidney injury from alternative medicines. *Advances in Chronic Kidney Diseases* 12: 261-275.
- KNEIFEL W., E. CZECH y B. KOOP. 2002. Microbial contamination of medicinal plants. A review. *Planta Medica* 68 (1): 5-15.

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