HP-24: STUDY OF THE THERAPEUTIC EFFECTS OF LIQUORICE *Glycyrrhiza glabra L*

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Subject description: Licorice, *Glycyrrhiza glabra* L., is an herbaceous plant of the Fabaceae family. Its root has been used since ancient times to calm coughs, thirst, sore throats, stomachaches... Currently, this drug is attributed expectorant, anti-ulcer, anti-inflammatory properties, anti-viral, anti-bacterial, anti-fungal, immunostimulant.

Objectives: The objective of the present study is the evaluation of the biological activities namely the antioxidant, anti-inflammatory and antimicrobial activity of licorice extract.

Methods: The active metabolites of licorice were extracted by cold maceration in vegetable oil. The antimicrobial activity of liquorice macerate was carried out by the well method, against five bacteria, five molds and the yeast *Candida albicans.* The evaluation of the antioxidant activity of the ethanolic extracts was carried out by the scavenging test of the hydroxyl radical (OH●), and by inhibition of the thermal denaturation of proteins Bovine serum albumin (BSA) for the evaluation of the anti-inflammatory activity.

Results and discussion: The results obtained show that the oily liquorice macerate has a moderate inhibition towards the two Gram+ strains (*Staphylococcus aureus, Bacillus subtilis*) and the *Candida albicans* yeast, with resistance from the other strains. In addition, that the hydroethanolic liquorice extract has good antioxidant activity, with an IC50 value of 0.109 mg/ml, and good anti-inflammatory activity with a percentage inhibition of BSA denaturation of 79.86%.

Conclusion: The richness of *Glycyrrhiza glabra* in different biologically active compounds has meant that this plant has been and is still used in different fields. As an anti-inflammatory agent, as a laxative, contraceptive, galactagogue, antiasthmatic and antiviral agent

Keywords: Licorice, *Glycyrrhiza Glabra* L, Antioxidant activity, Anti-inflammatory activity, Hydrodistillation, Maceration.