

STUDY OF ANTIMICROBIAL ACTIVITY OF ESSENTIAL OILS

Likhobaba E.Y., Strilets O.P., Strelnikov L.S.

The National University of Pharmacy, Kharkiv, Ukraine

biotech@nuph.edu.ua

In present tense in the whole world there is a tendency to the use of preparations of phytogenous that is explained by content in them by a complex biologically active substances, more soft operating on an organism and less at their application. In medicine all more often at various infections and diseases appoint antimicrobial therapy, however her application results in negative consequences. With every year the amount of proof and not sensitive forms of microorganisms grows substantially. The necessity of search of new anti-infectives that does not assist forming of stability appeared in this connection. For the last twenty years many experimental researches that confirmed the antimicrobial action of essential oils in the relation of different types of bacteria and mushrooms were executed. Considerable interest in that behalf is medicinal preparations that have essential oils. From literary sources it is known that microorganisms at the protracted contact with essential oils practically do not have signs of getting used to them, that is them by ponderable advantage before antibiotics. Essential oils and medical plants bring over to itself attention foremost as not exhausted sources of medical raw material for creation of preparations with antimicrobial, antiinflammatory and restores immunity. Essential oil is liquid volatile mixture of organic substances, that is produced by plants and gives to them to the smell. Most essential oils well dissolve in petrol, ether, chloroform, lipids, in oils and other substances of lipophil, and badly - in water. In addition, comparisons of antimicrobial activity of the same oil are related to that on composition of essential oils influence as ground-climatic and ecological terms of increase of plants with essential oils, and also technology of receipt of oil and condition of his storage. The aim of this research was a study of antimicrobial activity of next essential oils : eucalyptus, orange, lavender and to crumple перечної. As organisms of tests Escherichia of coli were used - (ATCC) 25922, Staphylococcus of aureus - (ATCC) 25923, Bacillus of subtilis - (DICK) 1313, Proteus of vulgaris - (ATCC) 4636, Candida of albicans - (ATCC) 885\653.

In quality of nourishing environments used a nutrient agar and agar of Sabouraud. As a result of research mildly-active bacterial activity was educed in relation to the organisms of tests used by us. In future works will proceed on the study of antimicrobial properties of various essential oils on the base of department of biotechnology of the National University of Pharmacy.