## Abstract

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Title of diploma thesis: **Effect of tyrosol on minimal inhibitory concentration of antimycotics**

Previous studies concerning quorum sensing in *Candida albicans* discovered two quorum sensing molecules, farnesol and tyrosol. Tyrosol has been formerly confirmed as a substance which shortens the lag phase of *Candida albicans* cell cycle and stimulates its conversion to the hyphal form, farnesol stimulates blastospores. This work covers the effect of tyrosol combined with two antimycotics, fungistatic fluconazole and fungicidal amphotericine B.

*Candida albicans* strains used in the experiment were mostly isolated from samples taken from patients suffering from variously located *Candida albicans* infections and four laboratory standard strains were also used.

The method used for the experiment was a modified broth dilution method using combinations of both tyrosol and antimycotics various concentrations, which were prepared by two-fold dilution.

Using amphotericine B, 28 strains did not show any difference in MIC compared with the control sample, 6 strains showed mildly higher MIC and 3 strains shower mildly lower MIC.

Using fluconazole, 24 strains showed no change in MIC. 8 strains showed mildly higher MIC, seven strains showed mildly lower MIC and one strain reacted with lower MIC in the presence of lower concentrations of tyrosol, but with higher MIC to higher concentrations of tyrosol.

The results showed no significant effect of tyrosol on MIC of any of the tested antimycotics.



Key words: tyrosol, *Candida albicans*, minimal inhibitory concentration, antimycotics