

Investigation and comparison of Anti Alzheimer effects of Lemon balm and Basil extract by inhibiting the production of amyloid nanofibrils

Giti Ghasemi*,

The accumulation of beta-amyloid peptide ($A\beta$) in the brain characteristic of Alzheimer's disease (AD), which causes oxidative stress and death of nerve cells. That is one of the most common causes is the loss of mental function. Some compounds derived extracts of medicinal plants with antimicrobial and anti-Alzheimer's disease and also as a source of antimicrobial substances act against human pathogens. These plants have shown inhibitory effects against pathogenic bacteria. By taking effective antimicrobial effects of plant extracts, they can be used as an alternative to anti-microbial and anti-Alzheimer's chemicals are in the food and pharmaceutical industries. In this study anti-microbial activities and anti-Alzheimer's extract, lemon balm (*Melissa officinalis*), basil (*Ocimum basilicum*) and how they compare with each other, against two disease-causing bacteria called *Escherichia coli* and *Staphylococcus aureus* with various in vitro is discussed. Antibacterial activity of the extracts on the *Escherichia coli* and *Staphylococcus aureus* using antibiogram and well done and the values of MIC and MBC of aqueous extract were also determined. Extract of lemon balm and basil in a much better result than the aqueous extract of lemon balm and basil wells showed. The results of MIC and MBC for aqueous extract of lemon balm and basil against *Staphylococcus aureus* and *Escherichia coli* acceptable results found. The antimicrobial effects of *Melissa officinalis* and basil was found that the antibacterial activity on Gram-positive bacteria than Gram-negative bacteria as well as the extract has an inhibitory effect is greater than the aqueous extract. Pit method due to more permeability is far more efficient than other methods. When the effect of increasing concentrations of lemon balm and basil anti-Alzheimer was found (up 100%), the presence of Amyloid fibers and minimal absorption and reduced red shift in the way Congo red was visible absorptiometry. Reduce the production of

amyloid fibers, confirmed the anti-Alzheimer lemon balm and basil. The active ingredient estragole up to 89% for basil and lemon balm herb's active ingredient was pyrrolidone up to 90% for (GC-Mass) was confirmed.

Keywords : Keywords: Lemon balm extract, basil extract, anti-Alzheimer's effect, anti-microbial effect

[Islamic Azad University, Rasht Branch - Thesis Database](#)
[دانشگاه آزاد اسلامی، واحد رشت - سامانه بانک اطلاعات پایان نامه ها](#)