

بررسی اثرات ضد میکروبی عصاره نعناع (*Metha Sp.*) روش با آن آلزایمری ضد اثرات و) مهار تولید نانو بیوفیبریل های آمیلوئیدی

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Abstract Introduction : In the recent years, regarding side effects and bacterial and microbial resistance against chemical medicines, herbal medicines are used as alternatives. Peppermint with scientific name of *Mentha* is Labiatae family and Magneliophyta series which include 4000 various species in 200 types. Peppermint is a herbaceous , non-local and perennial plant which could have 40 inch height and the color of its flowers is purple to pink and its fruit has 4 nuggets. The goal of this research is assessment of anti-microbial feature of hydro-alcoholic extract of peppermint and Anti Alzheimer effects of this extract by inhibiting the production of Amyloid fibrils in Bovine Serum Protein. **Methods and materials :** at first the peppermint is powdered and hydro-alcoholic extract is produced by 70% ethanol . extract composites were obtained by GC-MS method. Anti-microbial effects of the extract on *E.coli* and *S.aureus* bacteria were studied using anti-bigram method and values of MIC and MBC of the extract were determined. Anti- Alzheimer effects were also assessed by help of spectrophotometry method and electron microscopy. **Results:** existence of Active ingredient of alpha Terpinen by 97%, gamma Terpinen by 95% and phytol by 81% was verified by using mass spectrometry (GC-MS). The diameter of the lack of growth halo of peppermint hydro-alcoholic extract in the sink method was 24 mm on *S.aureus* bacteria and 14 mm on *E.coli* bacteria. The results of MIC and MBC were obtained as 118.7 mg/ml and 237.5 mg/ml for *E.coli* and *S.aureus* , respectively. In the studies of anti-bacterial effects of peppermint, it was revealed that the anti-bacterial activity of peppermint on Gram-positive bacteria is more than gram-negative bacteria. In . Anti- Alzheimer effects' studies , it was revealed that enhancement of peppermint concentration reduced existence of Amyloid strings and the minimum level of absorption and red shift was observed in Converted visible -absorbance method and also decrease of Amyloid strings' production verifies Anti

Alzheimer feature of peppermint. Conclusion: It could be concluded that peppermint with anti-microbial feature such as low side effects and low cost rather than the other chemical medicines could be suitable for treatment and also could be used as one of the most useful medicines for reducing the effects of Alzheimer in human being.

کلمات کلیدی : anti-microbial-effect ,anti-Alzheimer effects ,E.coli ,S.aureus

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