

## **Comparative Study of Amyloidogenic Potential of AgNO<sub>3</sub> and Freund's Adjuvant (AF) with That of Vitamin Free Casein, on Spatio-Temporal Pattern of Experimental Amyloidosis in Mice**

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**Abstract :** Reactive amyloidosis is a condition that complicates a long list of chronic inflammation, chronic infectious, malignant, and hereditary disorders. In the present study the potential effects of two amyloidogenic substances: ie. AgNO<sub>3</sub> and Freund's Adjuvant (AF) with that of vitamin free casein, on spatio-temporal pattern of experimental amyloidosis in mice, were compared. For this purpose, a total of 40 male Swes mice, obtained from Pasteur Institute Tehran, after being weighted were randomly divided into 4 groups including 2 treatments, 1 control (vitamin free casein) and 1 positive control (normal saline). At the end of 3rd, 5th and 7th weeks of experiment 3 mice were randomly selected and euthnised. Spleen sample of each animal obtained and preserved in 10% neutral buffer formalin. Sample were then processed through different stages of dehydration, clearing and impregnation and finally embedded in paraffin blocks. Sections of 5µm thickness then cut and stained by alkaline Congo red techniques. Spleen weights and the data obtained from the microscopic quantitative analysis did show no significant differences between groups A and B, A and C, and B and C. However, significant differences were observed between groups A and D, B and D, and C and D respectively. It is concluded that two compounds ie; AgNO<sub>3</sub> and Freund's Adjuvant have the same potential, as does vitamin free casein have, in spatio - temporal pattern of experimental amyloidosis in mice.

**Keywords :** amyloidosis, mice, AgNO<sub>3</sub>, Freund's Adjuvant

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