



دراسات العليا

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Title of Thesis: Role of Long non-coding RNA NEAT-1 In Pathogenesis of Psoriasis in Egyptian patients
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ABSTRACT

Psoriasis is an immune-mediated, inflammatory disorder of the skin and is characterized by inflammation of the epidermis. Despite the great advances in our understanding of psoriasis pathogenesis, the picture is still not completely clear and research is needed to enhance our knowledge regarding the causative events in the development of psoriasis, which in turn will provide more treatment strategies.

Long non-coding RNAs (LncRNA) are essential to carry out key functions in regulation of gene expression. An increasing number of studies suggest that LncRNAs have diverse biological roles ranging from regulation of development and differentiation to regulation of epigenetic processes by guiding chromatin-modifying enzymes to their sites of action playing a role in RNA modification, evolution and inheritance.

The aim of the present study was to assess the expression of LncRNA NEAT-1 in sera of psoriatic patients. After the approval of ethical committee, 60 subjects from Dermatology outpatient clinic, Faculty of Medicine, Fayoum University Hospital were recruited for the study and divided into 2 groups; 20 age and sex matched healthy subjects and 40 psoriatic patients. All patients were subjected to history taking and clinical evaluation to assess extent of disease (Body Surface Area) and its severity (PASI score). Serum samples were obtained from all subjects. The expression of LncRNA NEAT-1 was assessed using RT-PCR. There was significant increase in LncRNA NEAT fold change expression in patients compared to controls (p value < 0.001). There was also significant increase in serum TG and cholesterol in patients compared to controls (p value =0.02, 0.001 respectively). Additionally, there was increase in neutrophil/lymphocyte ratio and platelet/lymphocyte ratio in patients compared to controls. The high serum expression of NEAT1 clarified that such circulating marker could be used as a potential marker for diagnosis of psoriasis.