

# **LncRNA MALAT-1 and MiRNA-9 in Egyptian Patients with Psoriasis**

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*By*

**Mai Mahmoud Mohamed Ahmed Sharabi.**

**M.B., B. Ch**

**Under supervision of**

**Prof. Dr. Olfat Gamil Shaker**

Professor of Medical Biochemistry and Molecular Biology  
Faculty of Medicine, Cairo University

**Prof. Dr. Mohamed Medhat El-Komy**

Professor of Dermatology  
Faculty of Medicine – Cairo University

**Dr. Azza Mohamed ElAmir**

Assistant professor of Medical Biochemistry  
Faculty of Medicine, Fayoum University

**Faculty of Medicine  
Cairo University  
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## ABSTRACT

**Background and Aim:** Psoriasis is a chronic debilitating disease affecting 1-2% of the white population. It is characterized by recurrent episodes of red, scaly, raised skin plaques that develop within seemingly normal skin and is triggered by a large number of factors, such as drugs, stress, physical injury to the skin and infection. Our aim was to detect the expression of serum and tissue (lesion and non-lesion) of LncRNA MALAT-1 and MiRNA-9 used as biomarkers for psoriasis.

**Subject and Methods:** Blood samples were taken from 20 psoriatic patients as well as 20 controls. 4 mm punch biopsy was taken from each lesional and non-lesional skin of psoriasis patient and controls. The following were done: An informed consent, history taking, and clinical assessment of the disease: extent of disease (%), disease severity: using PASI score and assessment of the severity of the biopsied plaque (BPSS). Serum was separated for detection of: LncRNA MALAT-1 and miRNA-9 expressions by real time RT-PCR.

**Results:** The results revealed significant increase in the expression of MALAT-1 in lesional and non-lesional skin and serum of psoriatic patients than controls. Also there was statistical significant increase in serum MiRNA-9 in patients than controls. Meanwhile, its tissue level was significantly decreased in patients than controls.

**Conclusion:** This study highlights the contribution of MALAT-1 and miRNA-9 in the pathogenesis of psoriasis. Elevated expression of MALAT-1 in lesional psoriatic skin in comparison to non-lesional skin is probably an important factor in the development of psoriatic plaques.

**Key words:** Psoriasis, MALAT-1, MiRNA-9 and PCR