

**“ESTIMATION OF SERUM LEPTIN IN PATIENTS WITH ORAL CANCERS
AND ORAL PRECANCERS: A PROGNOSTIC STUDY”**

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ABSTRACT

Back ground: Leptin is a hydrophobic 16 KDa protein peptide with 167 amino acid, encoded by the Ob gene produced by adipocytes. It is a member of the adipocytokine family that is related to body weight, metabolism and reproductive function. It is also a long-term peripheral regulator of body composition as it is associated with appetite and energy expenditure and balance in healthy individuals.

Aim: The aim of the study is to estimate, compare the serum leptin level and to correlate them with BMI in precancerous and cancerous subjects with that of controls.

Methodology: The study included 90 subjects with 30 subjects in each group, Group A (Controls), Group B (Precancerous conditions) and Group C (cancer). The fasting blood samples of all the subjects (Group A and C; Pre and post treatment samples of Group B) were collected and centrifuged to separate serum. Serum thus obtained is subjected to ELISA to estimate serum leptin.

Results: In the present study highly significant decrease in the burning sensation is seen in Group B subjects (OSMF & OLP). Statistically significant increase in mouth opening (OSMF) and leptin levels without any significant difference in BMI levels were noted (OSMF & OLP). A significant decrease levels of leptin noted in Group C subjects when compared to Group A subjects.

Conclusion: In the present study, though there was no much variation in BMI levels in subjects among different groups, serum leptin levels showed a wide range of variation. Thus leptin can be relatively and reliably measured and it may be considered as a sensitive and better biomarker to measure the nutritional status of an individual.

Key words: Leptin, BMI, Oral Sub Mucous Fibrosis, Oral Lichen Planus, Oral Cancer