

## Vegetarianism and Salivary Defense System

Houra Pourghaffar\*; Nour Amirmozafari; Reyhaneh Sariri

*Department of Microbiology, Lahijan Branch, Islamic Azad University, Lahijan, Iran*

n.amirmozafari@yahoo.com

**Background & Objectives:** Vegetarianism is referred to using plant-based diets excluding meat and either including or excluding dairy products, eggs and honey. Saliva contains a complex mixture of substances, similar to other body fluids. The use of saliva as a source of important biomarkers has recently attracted attention of some researchers. The aim of present study was comparing the antimicrobial power of saliva among vegetarian and non-vegetarian volunteers.

**Methods:** Antimicrobial activity of the saliva samples was evaluated against four clinically important bacteria. The biological activities of three of the main antioxidant enzymes of saliva were measured using appropriate Methods of enzyme assay in both groups.

**Results:** According to the results, saliva obtained from vegetarians showed a reduced inhibition effect on growth of *S. aureus*, *K. oxytoca*, *P. aeruginosa* and *E. coli* as compared to those obtained from the non-vegetarian subjects. The activity of salivary peroxidase, catalase and superoxide dismutase showed a statistically marked decrease in vegetarian group.

**Conclusion:** According to our literature survey, this is the first report on the antibacterial and antioxidant capacity in saliva of vegetarians. Results obtained from the present study have opened a new line of research with the basis of saliva as a research tool.

**Keywords:** Vegetarianism; Salivary; Defense System

