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Salivary Proteome patterns of individuals exposed to High Altitude

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Highlights

- Saliva is an indicator of oxidative stress occurred due to high altitude exposure.
- High altitude exposure modulates the salivary proteome.
- Cystatin S and SN, carbonic anhydrase 6 and apoptosis inducing factor 2 are up-regulated.
- Alpha-enolase and prolactin inducible protein are down-regulated.

Abstract

Objective: Identification of molecular signatures having key roles in hypobaric hypoxia by analysing the salivary proteome. Saliva holds a promising future in the search for new clinical biomarkers that are easily accessible, less complex, accurate, and cost effective as well as being non-invasive.

Methodology: We employed qualitative proteomics approach to develop discriminatory biomarker signatures from human saliva exposed to hypobaric hypoxia. Salivary proteins were analyzed and compared between age-matched healthy subjects exposed to high altitude

Abbreviations:
MALDI-TOF/TOF- Matrix Assisted Laser Desorption Ionization- Time of Flight/Time of Flight
ELISA- Enzyme- Linked Immunosorbent Assay
MS- Mass Spectrometry