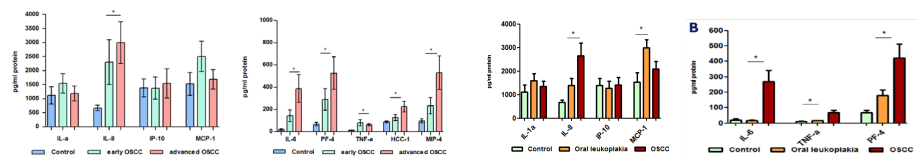


Joint Event on Cancer Treatment & Breast Cancer and Biomarkers

March 20-21, 2019 Paris, France

Identification of Potential Salivary Biomarkers for early OSCC

Oral Squamous Cell Carcinoma (OSCC) is a common human malignancy with poor survival rates associated with the late diagnosis and frequent recurrences. It develops through a multistep process where the initial presence of a precursor cell subsequently evolving into a tumor outgrowth is well established. Furthermore, a complex of genetic and epigenetic metabolic changes have been correlated to the cancerous transformation of oral potentially malignant disorders (OPMD) such as Oral Leukoplakia (OL). Since inflammation has been linked to the pathology of OSCC, research to date indicates the possibility of using salivary pro and anti-inflammatory factors for screening of oral disorders. Therefore, a prospective study to determine novel molecular biomarkers is carried out addressing current clinical needs with diagnostic & prognostic means. Multiplex immunoassay enabled simultaneous detection and quantitation of a protein panel including IL-1 α , IL-6, IL-8, IP-10, MCP-1, TNF- α , HCC-1, PF-4 and MIP-4 in saliva samples obtained from 86 volunteers (mean age 64.4 \pm 3.86 years) classified into Control, OL, Early and Advanced stage of OSCC groups. Analysis showed significantly elevated concentrations of IL-6, IL-8, IL-10, TNF- α , HCC-1, MIP-4 and PF-4 according to the oral cancer progression (Fig. 1A,B). Besides, MCP-1 and PF-4 were found importantly higher in pre-cancerous condition collated to controls, while IL-8 and PF-4 demonstrated a trend towards a growth among patients diagnosed with OL and OSCC (Fig. 2A,B). The results suggest that saliva can be used as a promising diagnostic fluid where measurable parameters like cytokines and chemokines at differential levels can discriminate disease process and have a prognostic value.



Biography

Valentina Dikova has completed a BSc degree in Biology and Chemistry followed by a MSc grade in Molecular Cell and Developmental Biology obtained from the University of Innsbruck, Austria. Postgraduate was assigned as a biomedical researcher in a H2020 supported MitoFit Project where she acquired experience in developing novel laboratory standards and diagnostic monitoring of cellular bioenergetics studying mitochondrial functions and disease related impairment. Since March 2017 has been recruited in the University of Valencia, Spain as a Marie Skłodowska Curie PhD fellow carrying out an investigation of molecular biomarkers with clinical application in cancer research.

vadi@uv.es

Notes: