Oral microbiome and oral mucositis

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Novel potential genera in oral microbiome may play a role in time to onset of OM severity in oral cancer patients.

Genus Veillonella was significantly associated with the time to onset of severe OM (BFDP = 0.76 and 0.69 respectively at 5% and 7% prior probability) after adjusting for age, gender and smoking status.

Introduction

Oral mucositis (OM) is an extremely painful complication experienced by ~66% of patients being treated for the head and neck cancer. Current standard treatment for OM focuses on pain control, rehydration, and oral hygiene. These treatments, however, have not been shown to meaningfully influence the trajectory of OM. Further, unplanned hospitalizations caused by OM substantially increase total cost of care and negatively influence survival. Recent studies suggest that loss of specific commensal flora important for the health of the oral epithelium may play a key role in OM pathophysiology. There is an urgent need for novel biomarkers to identify individuals at high risk to develop OM.

Goal

To investigate whether the risk, severity, and time to onset of OM/severe OM will vary in relation to oral microbiome features.