**Title:** A Survey of the fatty acid content of human oral squamous cell carcinoma

**Authors:** M. Darabi1, M. Askari2, E. Jahanzad2, M. Darabi3, Z. Mostakhdemian Hosseini4, Shaaker M3, A. Mehdizadeh3

**Abstract:**

**Introduction:** Oral squamous cell carcinoma appear to have an altered lipid metabolism. The aim of this study was to investigate differences in tissue fat composition between malignant and adjacent normal squamous tissue.

**Method:** Normal-appearing and malignant squamous tissue were collected from 25 patients with oral squamous cell carcinoma. The fatty acid composition in the obtained tissue was determined by gas liquid chromatography.

**Results:** In the squamous cell carcinoma tissue, the level of stearic acid (18:0; P<0.001) was higher, and the levels of oleic acid (18:1n-9; P<0.001) and linoleic acid (18:2n 6; P<0.001) were lower than that in the normal-appearing squamous tissue. Overall, squamous cell carcinoma had a significant reduction in the total n-6 polyunsaturated fatty acid (~13.1%; P<0.001).

**Conclusions:** The change in the fatty acid composition may be regarded as an indicator of altered lipid metabolism occurring in vivo during squamous cell carcinogenesis.

**Keywords:** fatty acids; squamous tissue, squamous cell carcinoma

**Presentation:** Poster