



IMPROVED DETECTION OF PROMISING EPIGENETIC BIOMARKERS FOR HEAD AND NECK CANCER IN SALIVA*

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Talk HN 04 B-2
4/12/19
17.00-18.30
Room Poulenc

Objectives

Two thirds of head and neck squamous cell carcinoma (HNSCC) patients are diagnosed with advanced tumor stages, mainly after the onset of symptoms. Therefore, the establishment of non-invasive diagnostic tools may improve the early and precise detection. The aim of our prospective multicenter observational study OncSaliva is to prove that cancer-specific epigenetic markers, detected in DNA from primary tumor tissue, may also be detectable in non-invasive saliva samples and blood.

Methods

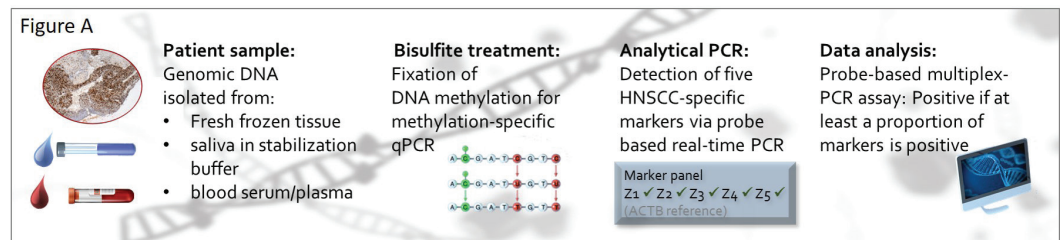


Figure A: HNSCC patient specimens collected at the Department of Otorhinolaryngology, Jena University Hospital.

Results

	Z1	Z2	Z3	Z4	Z5	1 / 5
Tissue	100%	43%	100%	100%	100%	100%
Saliva	94%	0%	6%	78%	17%	100%

Table I: Detection rate of epigenetic biomarkers in different specimen from HNC patients. Sample set: primary tumor tissue (14x), saliva tumor patient (18x)

	Z1	Z2	Z3	Z4	Z5
Matching pairs	13 / 14	8 / 14	0 / 14	10 / 14	1 / 14
percentage	93%	57%	0%	71%	7%

Table II: Matching results of saliva with tumor tissue. Sample set of matching specimens: primary tumor tissue (14x), saliva tumor patient (14x)

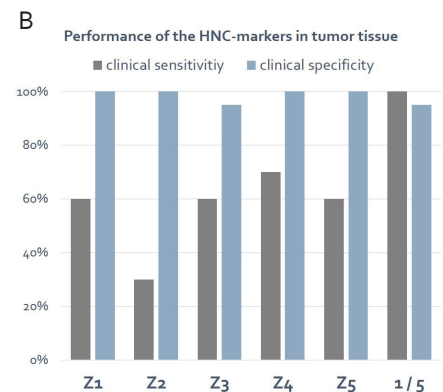
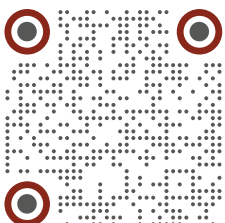


Figure B: Clinical sensitivity and specificity for epigenetic markers in validation sample set (20x HNSCC tumor tissue, 20x non-malignant tissue control)

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Conclusion

Preliminary results from first patient samples included in OncSaliva support our study hypothesis which envisages a robust detection of HNSCC markers in both, tissue and saliva. Results of the control group are not yet available. Saliva provides an easy to collect diagnostics sample for application in a cancer-specific multiplex assay which will be useful as an in vitro diagnostic strategy in secondary and tertiary prevention.

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