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EXPLAINABLE AI FOR CYTOLOGY ANALYSIS AND BRUSH BIOPSIES FOR HR-HPV DETECTION FOR PREVENTION AND EARLY DETECTION OF ORAL CANCER

Medverkande i forskargruppen
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Introduction: This project is a cross-professional team work to develop automated AI cytology and hrHPV analysis to identify individuals at risk for developing oral cancer. A national screening program for detection of HR-HPV and cell changes would enable earlier detection of oral cancer and give chance for early treatment.

Aim:
Will brush sampling give the same diagnosis performed by the team in general dentistry as for the specialist? Will brush sampling give the same diagnosis as for biopsies?

Methods: 5 clinics in general dentistry will include 100 patients with lesions for brush samples and then refer to a dentist specialized in Oral Medicine for control brush and biopsy.

Results: Preliminary results indicates good correlation between manual annotation and automated analysis based on computerized image processing.

Conclusions: Brush biopsy, a non-invasive method is painless, easy to handle, heals directly, and is cost-effective for both the health care system as the patient.