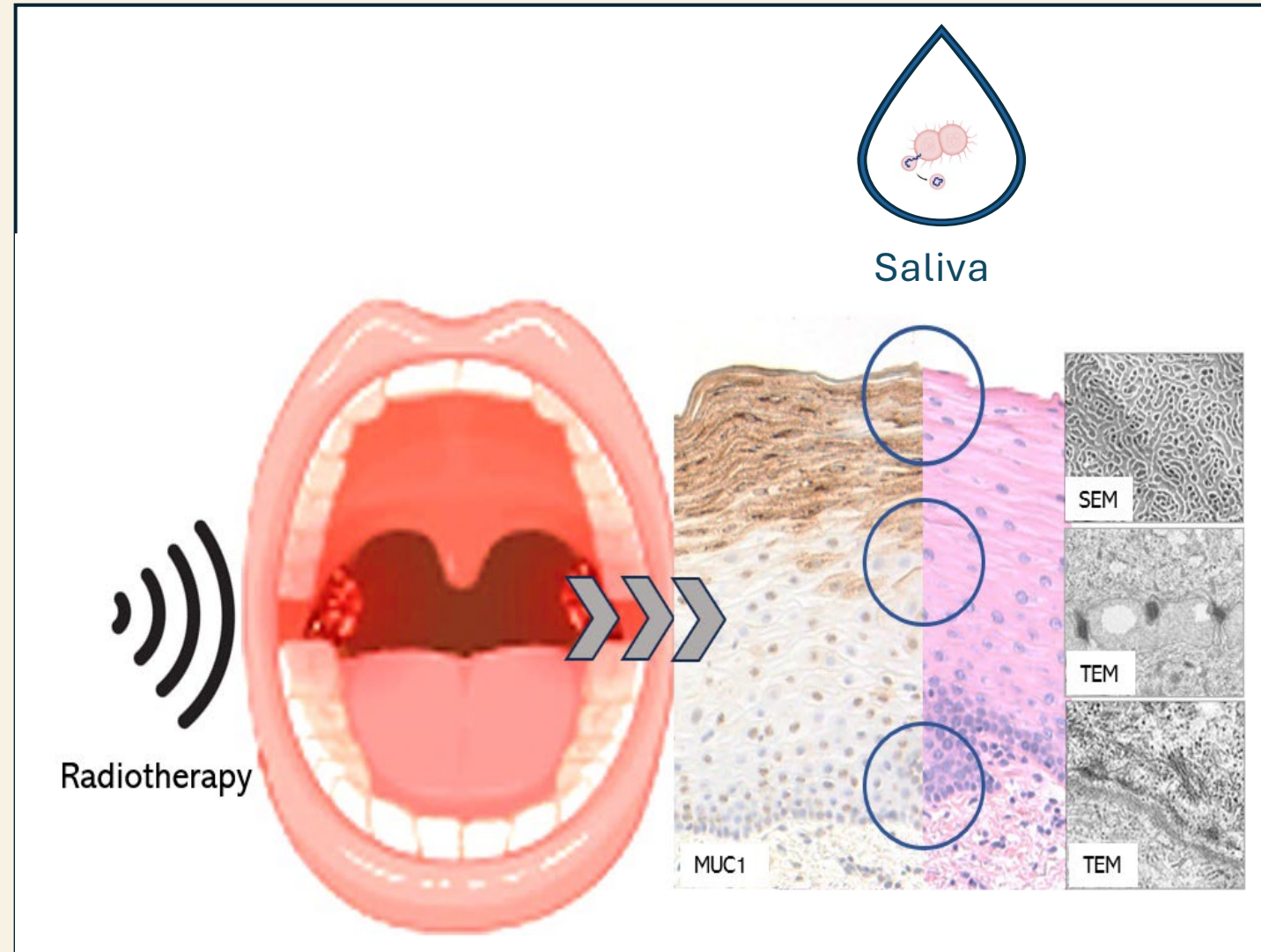


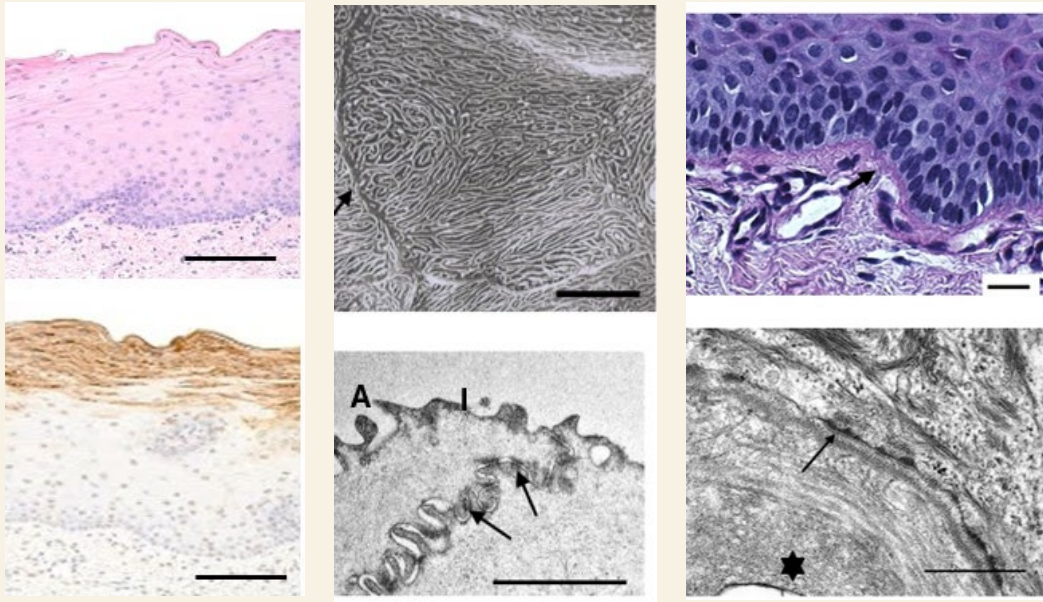
# Long-term changes of oral mucosa and epithelial barrier functions in patients with head and neck carcinoma after radiotherapy

Approximately 80 % of head and neck cancer patients receive radiation therapy as a part of their treatments. This study aimed to identify the long-term pathological changes in the oral mucosa of patients who have received radiation therapy.

The study group consisted of 87 patients who were divided into three groups: controls, irradiated and osteoradionecrosis patients. Samples from the patient's oral mucosa were collected and studied using histological, immunohistological and electron microscopical methods.

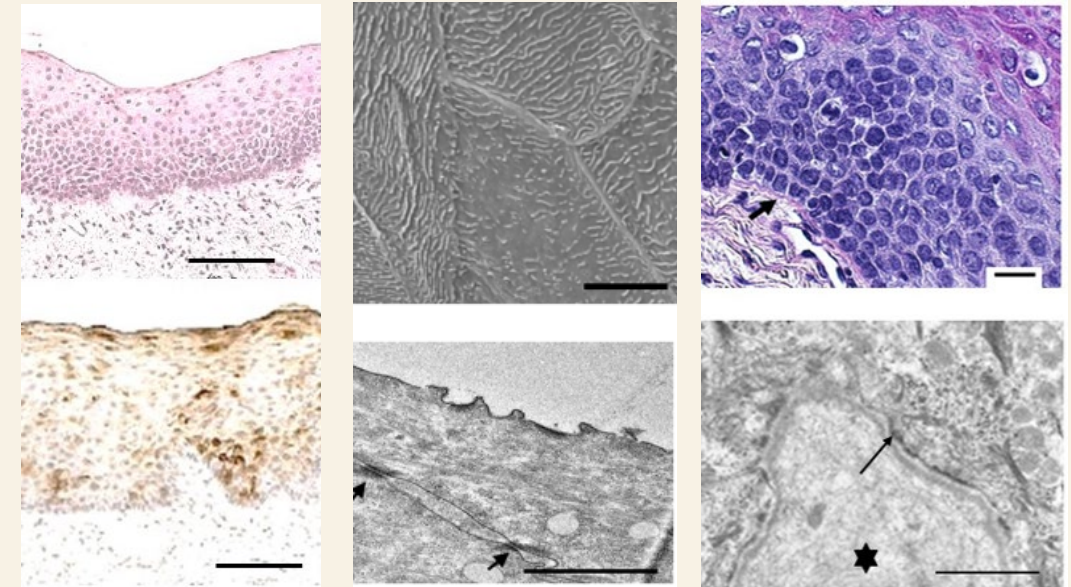


## Controls



Radiation therapy for head and neck cancer causes various long-term effects on the oral mucosa. Histological changes can be seen even after decades in irradiated patients. Histologically, the study found abnormal expression of MUC1, disintegration of cellular junctions, and disturbances in the basal cell layer. This study showed the importance of MUC1 as a part of the oral mucosal barrier complex.

## Irradiated



The time interval between RT and biopsy was linked to changes in the oral mucosa and demonstrated long-term changes in the oral epithelium. The oral mucosal state should be assessed and considered to improve the treatment planning and treatment outcome of head and neck cancer patients.

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Long-term changes of irradiated oral mucosa and epithelial barrier functions in patients with head and neck carcinoma

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