Ph.d.

Salivary gland carcinoma in Denmark 1990-2015: A national study with focus on diagnostic imaging, surgical treatment of the neck and prognosis

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The PhD thesis investigated salivary gland cancer in Denmark from 1990 to 2015.

A total of 1,682 patients were diagnosed with primary salivary gland cancer in Denmark during the period. The most common subtype was adenoid cystic carcinoma (25%). Most tumours (52%) were in the parotid gland. The mean age at diagnosis was 62 years (range, 6–102 years). There was an increase in crude incidence of 1.5% annually, but when adjusted for age, the incidence was stable across the period. The 5-, 10-, and 20-year survival rates were 68%, 52% and 35% for overall survival; 77%, 69% and 64% for disease-specific survival; and 75%, 64% and 51% for recurrence-free survival, respectively.

Diagnostic imaging with PET/CT was compared with conventional diagnostic imaging (MRI/X-ray) in patients with suspected salivary gland carcinoma. There was no difference in the diagnostic accuracy of the primary salivary gland lesion, but the results indicated that PET/CT may be beneficial for evaluating regional lymph nodes, distant metastases, and synchronous cancer.

Patients with high-grade histological subtypes and T3/T4 tumours had the highest risk of occult regional metastases. Based on the results from our study and a systematic literature review, we recommended elective neck dissection of lymph nodes for patients with high grade or unknown histology tumours and/or T3/T4 tumours.

Three different prognostic scoring models for predicting the risk of recurrence were tested and one of them agreed well with the observed recurrence-free survival in the Danish patient cohort. This model could be implemented when planning individualised follow-up strategies.

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