مقالات
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کانسر های سر و گردن

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Background

Little is known about the molecular signature of the rare tumor sinonasal squamous cell carcinoma (SNSCC). The purpose of this study was to comprehensively assess various molecular biomarkers in SNSCC.

Methods

We chose 13 markers for this study, which have been known as prognostic markers in head and neck squamous cell carcinoma. Expression of these markers was examined by either in situ hybridization or immunohistochemical methods on tissue microarrays made from 70 SNSCC specimens and 28 matched-pair normal tissues from patients who underwent surgical resection at our institution. Expression data were correlated with patient clinicopathologic parameters and survival.

Results

Of the 13 markers, only epidermal growth factor receptor (EGFR) protein expression was associated with significantly shorter disease-free survival (DFS; $p = .01307$). EGFR expression
was also associated with shorter overall survival (OS), but the difference was not statistically significant.

Conclusion
Targeted inhibition of tumor EGFR expression may be a new approach to treating SNSCC.

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**Background**
Resection of the primary tumor followed by sentinel node biopsy (SNB) for the clinically N0 patient has been implemented in our Head and Neck University Center. The purpose of this study was to report on the outcome for patients with negative SNB.

**Methods**
From April 2007 to October 2009, 53 consecutive SNB-negative patients with oral cavity squamous cell carcinoma (SCC) T1 to T2 were accrued. Follow-up was done continuously with the most recent examination in October 2011. The location of the sentinel lymph nodes was determined using dynamic and planar lymphoscintigraphy and single photon emission CT (SPECT)-CT. Intraoperatively, a hand-held gamma probe was applied. The harvested sentinel lymph nodes underwent histopathologic examination using step-serial sectioning at 150-μm intervals and immunohistochemistry. In the follow-up period, we
observed and examined the SNB-negative patients for recurrence, morbidity, and mortality.

Results

Fifty-three SNB-negative patients were identified. Eight patients received adjuvant radiotherapy (RT) because of incomplete excision on the T site after the primary operation. An additional 2 patients received RT because of recurrences on the T site and N site. One patient died of recurrence on the T site and N site without having received additional treatment. Six patients died of nonrelated causes. During follow-up, 3 patients with both T-site and N-site recurrence were found. No case of isolated recurrence on the N site only was found. Thirty-six SNB-negative patients treated only surgically with a median follow-up of 37 months (range, 25–52 months) and no recurrence remain under active review.

Conclusion

Only 3 of the SNB-negative patients subsequently developed recurrence in the T site and N site. The remaining 36 patients had no N-site recurrence at median follow-up of 37 months.

3. Psychosocial functioning and vascular endothelial growth factor in patients with head and neck cancer

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Background

Psychosocial functioning is associated with vascular endothelial growth factor (VEGF) in various patient populations. This study examined whether psychosocial functioning in patients with head and neck squamous cell carcinoma (HNSCC) is associated with tumor VEGF expression, a protein that stimulates angiogenesis and is associated with poor prognosis.

Methods
Forty-two newly diagnosed patients completed assessments of psychosocial functioning (ie, depressive symptoms, perceived stress, anxiety, social support) before surgery. Tumor samples were obtained for VEGF analysis and human papillomavirus (HPV)-typing.

**Results**

Poorer psychosocial functioning was associated with greater VEGF expression controlling for disease stage (odds ratio [OR], 4.55; 95% confidence interval [CI], 1.72–12.0; \( p < .01 \)). When examined by HPV status, the association between psychosocial functioning and VEGF remained significant among patients who were HPV negative (OR, 5.50; 95% CI, 1.68–17.3; \( p < .01 \)), but not among patients who were HPV positive.

**Conclusion**

These findings inform our understanding of the biobehavioral pathways that may contribute to poor outcomes in non-HPV-associated HNSCCs.
Background
Prolonged radiation treatment time (RTT) in head and neck squamous cell carcinoma (HNSCC) is associated with inferior tumor control in patients treated with radiation therapy (RT) alone. However, the significance of prolonged RTT with concurrent chemotherapy is less clear.

Methods
We reviewed outcomes for 171 patients with primary HNSCC treated with curative intent RT and concurrent drug therapy from 2001 to 2009. The effects of RTT and other variables on local control and survival were analyzed.

Results
Patients with RTT >7 weeks had a significantly increased risk of local failure (hazard ratio [HR], 2.6; \( p = .018 \)) and death (HR, 1.9 \( p = .035 \)). These results retained significance even after adjustment for tumor stage (age was not significant).

Conclusion
For patients treated with concurrent chemoradiotherapy (chemoRT), prolonged RTT may compromise tumor control as has been established in the setting of RT alone. Symptoms of patients with HNSCC undergoing definitive chemoRT should be managed aggressively to limit treatment interruptions.
Background

Cervical cancers have been shown to increase the risk of cancers at distant sites, including the head and neck region. This study investigated the relative risk of developing head and neck cancer subsequent to cervical cancer in an Australian population.

Methods

Cervical cancers, head and neck cancers, and cervical dysplasias among women registered with the Queensland Oncology Repository were identified for the period 1982 to 2008.

Results

Over the 26-year period, 3328 women were diagnosed with a cervical cancer and followed up for 30,375 person-years at risk. Eighteen women (0.5%) developed head and neck cancer within a mean time of 8.1 years (SD = 5.56). The relative risk of head and neck cancer development subsequent to cervical cancer was 6.7 (95% confidence interval [CI], 4.06–10.91).

Conclusion

This study demonstrates that women with cervical cancer were almost 7 times more likely to develop head and neck cancer compared to the general female population.
6. Comparison of oncologic and functional outcomes after transoral robotic lateral oropharyngectomy versus conventional surgery for T1 to T3 tonsillar cancer

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Background

We performed transoral robotic surgery (TORS) or conventional surgery via a transoral or mandibulotomy approach in patients with tonsillar cancer and prospectively analyzed the oncologic outcomes and functional recovery of the 3 groups.

Methods

Between May 2008 and October 2011, 57 patients were enrolled in this prospective study.

Results

Although there was no significant difference in the survival rate of the TORS group (100%) and the conventional surgery group (96.7%), a higher rate of margin negativity was observed in the TORS group, especially in cases in which the tumor extends inferiorly.

Patients who received TORS or conventional transoral procedures showed more rapid recovery of swallowing, shorter hospitalization, and shorter operation time than the mandibulotomy group.

Conclusion

Despite the weakness of this nonrandomized trial and the differences in T classification, TORS seemed to have distinct advantages over conventional transoral surgery and other conventional open surgery, but further studies are needed.
7. Mutation frequency in 15 common cancer genes in high-risk head and neck squamous cell carcinoma

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Background

With prior studies having looked at unselected cohorts, we sought to explore the mutational landscape in a high-risk group of head and neck squamous cell carcinoma (HNSCC) tumors.

Methods

A multiplexed polymerase chain reaction (PCR) assay evaluating 68 loci in 15 genes was performed on 64 patients with high-risk HNSCC. Because of the frequent PIK3CA and AKT1 mutations in patients with oropharyngeal carcinoma, we evaluated the relationship between mutation status and both clinical/pathologic variables and tumor control in this subgroup.

Results

Seventeen of 64 patients harbored mutations in the assayed loci: 16% in PIK3CA, 9% in TP53, 2% in AKT1, and 2% in epidermal growth factor receptor (EGFR). The frequency of PIK3CA/AKT1 mutations in oropharyngeal and
 sinononal primaries was increased compared to other primary sites (35% vs 6%; \( p = .005 \)). There was no relationship between mutation status and overall survival (OS), disease-specific death, or progression in the oropharyngeal cohort.

**Conclusion**

We identified frequent PIK3CA mutations in patients with high-risk HNSCC confined predominantly to the oropharyngeal and sinonasal subsites; for the first time, mutation in AKT1 has been identified in HNSCC.

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**8. Risk of cancer in patients with medically diagnosed hay fever or allergic rhinitis**

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Data on allergic conditions as risk or protective factors for cancer are controversial probably because most studies have used self-reported data on mixed groups of allergies in a case–control setting. We define cancer risks in medically diagnosed hay fever/allergic rhinitis patients in a nationwide cohort study. A total of 138,723 hay fever/allergic rhinitis patients were identified from three Swedish health care databases and standardized incidence ratios (SIRs) were calculated for subsequent cancers identified from the Swedish Cancer Registry. Overall cancer risk was not changed (SIR 1.03). For individual cancers, the highest SIR was observed for nasal cancer (SIR 2.63), followed by testicular (1.46) and endocrine tumors (1.42), and kidney (1.31),
prostate (1.18) and breast (1.11) cancers. The results were consistent in the three sources of data and all SIRs were above unity, albeit mainly not statistically significant. The SIRs for nervous system tumors were above unity and of borderline significance. SIRs were decreased for esophageal (0.50), liver (0.62) and lung (0.78) cancers, and the three sources of data agreed in the direction of the effect. The increased risks for testicular, renal, prostate and endocrine cancers may be explained by immunological mechanisms. Excess risk for these cancer accounts for a significant population attributable fraction. Nervous system cancers showed a borderline increase and none of the histological types were significantly decreased, providing strong evidence against the published case–control studies, which have reported protective effects. The reasons for the reduced risks for esophageal, liver and lung cancer remain to be explained.
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