Examination of the Patient with Head and Neck Cancer

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KEYWORDS

• Oral cavity • Larynx • Nasopharynx • Oropharynx • Neck • Salivary • Malignancies

KEY POINTS

- The head and neck is a complex region, with many anatomic sites.
- A thorough detailed head and neck examination can adequately evaluate and stage patients with head and neck cancer.
- Endoscopic evaluation is an important complement to the head and neck examination.

Head and neck cancer typically refers to epithelial malignancies of the upper aerodigestive tract, which include the oral cavity, the oropharynx, larynx/hypopharynx, nasopharynx, nasal cavity, and paranasal sinuses. In addition, the term may also include neoplasms of the thyroid, salivary glands, and soft tissue, bone sarcomas, and skin cancers.[1,2] Head and neck cancer accounts for an estimated 3% to 5% of all cancer in the United States.[3] Two-thirds of patients present with advanced disease involving regional lymph nodes at the time of diagnosis.[4] In view of the broad range of disease and discrete anatomic relationships, a thorough history and detailed examination of the patient with head and neck cancer are often required to define the clinical problem. This careful examination is integral to oncologic staging and treatment planning.

This article begins with an overview of the head and neck examination (with special attention to detailed findings with clinical implications), followed by a discussion of the major head and neck subsites, and clinical pearls surrounding the examination.

HISTORY TAKING IN THE HEAD AND NECK

Evaluation of the patient with head and neck cancer begins with the patient's history. This history should be solicited, with attention to time course of symptom onset and progression. Symptoms such as shortness of breath, hoarseness, dysphagia, odynophagia, otalgia, globus sensation, hearing loss, aural fullness, epiphora, or trismus may be elicited

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while obtaining the history and often direct the examiner to the primary malignancy. A mass in the neck, or of the face, scalp, mouth, or nose, may be the presenting complaint.

A detailed history of previous malignancies and previous treatments should be obtained. Patients with a previous head and neck malignancy harbor substantial risk for developing a second primary lesion. The annual risk of patients with head and neck cancer developing a metachronous second primary malignancy is estimated between 1.5% and 5.1%.[5,6] In addition, a variety of tumors can metastasize to the head and neck, with melanoma, breast, lung, kidney, and gynecologic malignancies having been reported in the literature.[7,8]

In addition to the patient's comorbid conditions, a family history should be obtained. Birthplace and ethnicity may play a role in head and neck cancer because of ethnic and regional predilections of some diseases. For example, nasopharyngeal carcinoma (NPC) is an uncommon malignancy in most countries of the world, with an average annual incidence of less than 1 per 100,000 per year. However, in the central region of Guangdong province of southern China, the incidence is more than 24 cases per 100,000 per year.[9,10] Increased incidence of NPC is observed in patients from North Africa, the Middle East, and the Arctic.[9,10] Although the risk of NPC among Chinese individuals who immigrate to North America remains high, American-born Chinese have significantly lower rates of NPC, approaching the geographic average.[11]

Substance Abuse and Occupational Risk Factors

A focused social and occupational history should be secured. Tobacco use and alcohol consumption account for an estimated 74% of squamous cell carcinoma (SCC) of the head and neck (SCCHN).[12–14] In individuals who smoke 2 or more packs of cigarettes a day and drink 4 or more alcoholic beverages, there is a 35-fold increased risk in the development of oropharyngeal cancer.[12] Similarly, smokeless tobacco products, such as chewing tobacco and snuff, are well-established risk factors in the development of oral and oropharyngeal cancer.[13,15] Betel quid, with and without tobacco, which is commonly used by South Asians, is a risk factor in the development of oral cavity as well as larynx, esophageal, liver, and pancreatic cancer.[16] Occupational exposures to asbestos, cement dust, and arsenic are also known risk factors for head and neck cancer.[17,18] Nickel refining and exposure to wood and leather dust are established risk factors for the development of sinonasal cancers.[19]

OVERALL FUNCTION

It is important to assess the patient's baseline functional status and recent changes in their ability to perform activities of daily living (ADLs). The Eastern Cooperative Oncology Group performance status scale is a commonly used clinical tool for patient assessment.[20] Because head and neck malignancies affect eating, drinking, breathing, swallowing, and talking, progressive disease often has a dramatic impact on performance status, as a result of trouble eating, weakness, and inability to perform ADLs. A patient's performance status influences treatment planning. Low performance status suggests a poor surgical candidate, problems completing radiation, or an inability to tolerate high-dose cisplatin chemotherapy. Such information informs the patient's treatment plan.

It is important to assess the patient's nutritional status, inquiring about weight loss and dysphagia. Dysphagia is an independent predictor of poor survival outcomes.[21] A variety of validated questionnaires, such as EAT-10 (eating assessment tool-10) and SWAL-QOL (swallowing quality of life) , can be used in the office to assess baseline dysphagia.[22–24] Patients with severe dysphagia and weight loss may need nutritional support, which may include tube feeding.