Pathophysiology and the Role of Squamous Cells in Tongue Cancer

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Description

On the surface of the tongue, squamous cells typically grow into tumors or lesions as a result of tongue cancer. The most ob-vious signs are pain, a sore that won't go away, and red or white patches on the tongue. One variety of mouth or oral cancer is tongue cancer. The tongue has two potential sites for cancer growth. The front of the tongue is where tongue cancer forms, whereas the back of the tongue is where oropharyngeal can-cer forms. It can be challenging to recognize some of the early symptoms of mouth cancer from those of other diseases, like mouth or tongue ulcers. Some people may not have any early cancer symptoms. Alcohol abuse and smoking are two things that can raise our risk of getting tongue cancer [1-5].

Pathophysiology of Tongue Cancer

The overexpression of oncogenes and silencing of tumour sup-pressor genes constitute a key, albeit oversimplified idea in oncogenesis. DNA damage results from lifetime exposure to known carcinogens in the oral cavity, and as a result of the ac-cumulation of genetic events, carcinoma eventually develops. Even though many genetic changes have been associated with the emergence of cancer, our knowledge of the connections be-tween these genetic changes and their relative significance in carcinogenesis is still quite limited. Mutations in the tumor sup-pressor gene *p53* and overexpression of the Epidermal Growth Factor Receptor (EGFR) oncogene are two of the most well-known genetic changes that cause tongue cancer and head and neck squamous cell carcinoma in general.

Symptoms of Tongue Cancer

Initial symptoms of tongue cancer might not be present. In cer-tain cases, a doctor or dentist will discover it while performing a routine check-up and looking for signs of cancer in the mouth. The intial sign of tongue cancer in the mouth is frequently a sore on the tongue that doesn't heal. Other signs could be a tumor or thickening on the tongue, as well as pain or bleeding in the mouth. Swollen lymph nodes in the neck may be the initial symptom of tongue cancer that has spread to the throat. Oth-er signs may include ear ache, weight loss, and bloody cough-ing. A lump in the neck, throat, or back of the mouth is another possibility. Other signs of tongue cancer may include: An area of the tongue or mouth's lining that is red or white, Persistent throat discomfort, a sensation of having something stuck in our throat, A change in voice, numbness in the tongue or mouth, pain or difficulty swallowing, chewing, or moving the jaws or tongue.

Risk factors of Tongue Cancer

Anyone can develop tongue cancer. The majority of cases are associated with significant alcohol and cigarette usage. The eas-iest strategy to prevent tongue cancer is to abstain from using any tobacco products and to consume alcohol in moderation. Other risk factors for developing tongue cancer include being male and being older than 40. It's essential to visit our den-tist regularly, especially if we're at an elevated risk for tongue cancer, as many tongue cancers are initially identified during standard dental exams.

Diagnosis of Tongue Cancer

Anyone can develop tongue cancer. The majority of cases are associated with significant alcohol and cigarette usage. The eas-iest strategy to prevent tongue cancer is to abstain from using any tobacco products and to consume alcohol in moderation. Other risk factors for developing tongue cancer include being male and being older than 40. It's essential to visit our dentist regularly, especially if we're at an elevated risk for tongue can-cer, as many tongue cancers are initially identified during stan-dard dental exams. This is typically carried out at our doctor's office under local anesthesia. Our doctor might perform a brush biopsy, a more recent type of biopsy, in place of an incision biopsy. The suspected malignant tissue will be softly brushed during the biopsy. This causes slight bleeding, which enables our doctor to gather cells for analysis. Both types of biopsies will have their cells sent to a lab for testing. If we have tongue cancer, our doctor may perform a CT scan or MRI to determine its depth and extent.

Treatment of Tongue Cancer

The course of treatment for tongue cancer is determined by the size and extent of the tumor. We might just require one treat-ment, or we might require several. Treatment for early oral can-cer that hasn't spread typically involves a quick procedure to cut out the afflicted area. An operation called a partial glossectomy, in which portion of the tongue is removed, is typically required to remove larger tumors. We might need reconstruction surgery if doctors have to remove a significant portion of our tongue. In this procedure, our surgeon will reconstruct our tongue using skin or tissue taken from another area of our body. The remov-al of the malignancy while causing the least amount of mouth damage is the aim of both the glossectomy and the repair sur-gery. Serious adverse effects from a glossectomy can affect our ability to swallow, communicate, breathe, and consume. We can learn to adapt to these changes with the aid of speech therapy. Talk therapy can also assist us in coping. Surgery will probably be used to remove the lymph nodes if the cancer has spread there. We will likely require a combination of surgery to remove the tumor and radiation to ensure that all tumor cells are elimi-nated or killed if we have a large tumor in our tongue or the can-cer has spread. Side effects from this include a dry mouth and altered taste. Along with surgery, radiation and chemotherapy, doctors may advise it to treat our cancer[6-10].

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