

CASE REPORT: TONSILLAR CANCER

Eva Stojković, Tanja Stefanović

HEALTH CENTER NOVI SAD, OCCUPATIONAL HEALTH SERVICE

Summary: INTRODUCTION: Tonsillar cancers are most commonly squamous cell carcinomas, followed by lymphomas, mostly non-Hodgkin's type. The disease often remains asymptomatic for a long time, and patients typically present with odynophagia, dysphagia, and enlarged lymph nodes in the neck. It is increasingly seen in younger populations, with the most common cause being proven infection with high-risk types of human papillomavirus. CASE REPORT: A 62-year-old patient presented to their primary care physician complaining of ear pain and difficulty swallowing. Examination revealed an enlarged left tonsillar fossa with grayish deposits extending towards the soft palate. Biopsy confirmed squamous cell infiltrating carcinoma of the tonsil. HPV typing demonstrated the presence of human papillomavirus type 16. An oncology consultation first included two courses of chemotherapy, resulting in partial improvement in the patient's general condition, followed by bio-radiotherapy. After bio-radiotherapy, the patient experienced pain relief, denied swallowing difficulties, and the tumor mass was significantly reduced, barely visible. Further monitoring and treatment continued as per the recommendations of the Oncology Consultation.

Keywords: tonsillar carcinoma, HPV type 16, HPV vaccination.

INTRODUCTION

Oropharyngeal carcinomas are classified based on their localization into tonsillar carcinomas, which are the most common, carcinomas of the pharyngeal wall, and carcinomas of the soft palate and uvula. Tonsillar carcinomas account for about 90% of cases and are predominantly squamous cell carcinomas, followed by lymphomas. The most common risk factors for the development of this carcinoma include human papillomaviruses (HPV), smoking, alcoholism, Epstein-Barr virus, as well as a diet low in fiber, tobacco chewing, asbestos exposure, marijuana smoking, and certain genetic mutations. In recent years, the etiology of oropharyngeal carcinoma has changed significantly. While smoking and alcoholism are significant contributing factors, HPV infection, especially type 16, is the most common cause. HPV-related tonsillar carcinomas are more common in men, nearly three times more, with the average age at diagnosis being 55-60 years. This can be attributed to sexual behavior trends, increased oral sex at an earlier age than in previous generations, and differences in smoking habits.

Malignant tumors of the tonsils represent about 0.5% of all malignancies in humans, and if diagnosed early, it is a curable disease. However, in advanced stages, the average survival rate is less than 50%. Therefore, it is crucial to work on educating the population and increasing the HPV vaccination rate to reduce the incidence of oropharyngeal carcinomas and cervical carcinomas.

CASE REPORT

The patient, aged 62, has been smoking for 40 years, consuming 20 cigarettes a day, occasionally consuming alcohol, and has benign prostatic hyperplasia, receiving medication from a urologist.

In October 2023, he presented to his primary care physician due to a burning sensation in the throat and pain deep in the left ear, lasting almost a month, along with recent difficulty swallowing. He used locally administered dexamethasone-neomycin drops and azithromycin capsules 500mg without improvement. Examination revealed swollen left tonsillar fossa with grayish deposits spreading towards the soft palate. Otoscopic findings were normal bilaterally. He was referred to an otolaryngologist at the Health Center, who confirmed the same changes and referred him to a laryngologist. A biopsy conducted by the laryngologist at the Clinical Center revealed squamous cell carcinoma keratodes focalis infiltrativum. CT scan of the head and neck showed affected lymph nodes. Meanwhile, the patient experienced severe pain, increasing difficulty swallowing, even liquids. HPV typing isolated HPV type 16.

The Oncology Board recommended chemotherapy, two cycles following a schedule he received in November during his first hospitalization at the Institute of Oncology of Vojvodina, and additional cycles in December 2023. Between cycles, he experienced worsening difficulty swallowing, even water, with pain and occasional bloody sputum. Following chemotherapy, he felt significantly better, experiencing less pain, improved sleep, and examination revealed a reduction in the tumor mass in the left tonsillar fossa.

In January 2024, he was hospitalized at the Institute of Oncology to initiate bioradiotherapy of the oropharynx, per the recommendation of the oncology commission, including brachytherapy and Cetuximab. He developed erythema with pustules on his face due to the treatment, treated with doxycycline and a local cream with urea. In March, he received a reduced dose by 20% due to skin cancer. After completing bioradiotherapy, he reported feeling much better, without throat pain, denying swallowing difficulties, with minimal changes in the left tonsillar fossa, and non-palpable lymph nodes. A follow-up with a new head and neck CT scan and laboratory tests is planned for May.

DISCUSSION

Evidence from studies has shown that the prognosis of tonsillar carcinoma depends on the HPV status of the tumor, with HPV-positive tumors having a better prognosis, with a longer five-year survival rate of 71%, compared to 48% in HPV-negative tumors. Mortality rates are higher in smokers positive for HPV compared to non-smokers. Other factors influencing survival include the occurrence of carcinomas in younger patients without comorbidities, smaller tumor size, and absence of neck lymph node involvement, all of which lead to a better prognosis. There are currently no studies comparing survival differences between patients treated solely with surgical or oncological protocols.

In addition to advising patients to quit smoking and reduce alcohol consumption, raising awareness about the importance of HPV vaccination is crucial. While numerous studies have demonstrated the vaccine's significance in reducing gynecological diseases, there are still limited studies on its effectiveness in preventing oropharyngeal carcinomas. There is great hope that the vaccine will reduce the prevalence of oropharyngeal carcinomas in Australia, Canada, and the USA.

The rate of tonsillectomies has significantly decreased in recent decades, by up to 50%. A 2015 study demonstrated that tonsillectomy, previously mainly performed in childhood, is a preventive factor for tonsillar and oropharyngeal carcinomas in individuals under 60 years old, but increases the incidence of base of tongue carcinomas in those over 60. Due to significant heterogeneity among studies, firm conclusions cannot be drawn, and it is hoped that randomized trials on the immune-oncological role of tonsillectomy will be conducted.

Therapeutic effects of biological therapy for head and neck carcinomas, as well as other regions, are improving, with significant efforts being made to transform carcinomas into chronic and curable diseases. It is hoped that large, future studies will soon demonstrate this.

CONCLUSION

Approaching a patient with tonsillar carcinoma must be multidisciplinary. The most crucial aspect is to diagnose the condition in its early stages when the tumor is small, without local or distant metastases. A 62-year-old patient presents with throat burning, pain deep in the left ear, and difficulty swallowing. The diagnostic process is efficiently conducted. Examination reveals an enlarged left tonsillar bed with grayish deposits extending towards the soft palate. Biopsy confirms squamous cell infiltrating carcinoma of the tonsil. HPV typing confirms the presence of human papillomavirus type 16. CT scan of the head and neck shows affected lymph nodes. The oncology team initiates two courses of chemotherapy, resulting in partial improvement in the patient's overall condition, followed by bioradiotherapy. After bioradiotherapy, the patient experiences pain relief, denies swallowing difficulties, and the tumor mass is significantly reduced, barely visible. The patient continues with follow-up appointments and treatment as per the oncology team's recommendation.

In Serbia, a nonavalent HPV vaccine is available, proven to be effective against cervical cancer and oropharyngeal carcinoma. However, due to false and unverified information about vaccines in general disseminated in public media and social networks, vaccination coverage remains inadequate. Therefore, in the 21st century, the scientific community still faces a challenging and laborious process of educating the population for the benefit of humanity as a whole.

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