



Original Research

The incidence of oral squamous cell carcinoma (OSCC) and its relationship with orofacial pain in oral cancer patients in West Java Province, Indonesia

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ABSTRACT

Objectives: Oral carcinoma including oral squamous cell carcinoma (OSCC) is known for its detrimental and lethal effect. Therefore, a study regarding its epidemiology and related factors is of importance. The current study aimed on revealing the incidence of OSCC and its correlation with orofacial pain in Indonesia's patient sample.

Methods: Nine hospitals that are located at the province of West Java, Indonesia were randomly selected. From these hospitals, we collected a number of patients who visited the Oral Surgery outpatient clinic from July 2014 to June 2015 and were diagnosed with OSCC. The location of OSCC, age, sex, and the presence of orofacial pain were collected and cross tabulated. Significant correlation was analyzed by using Pearson correlation.

Results: Based on its location, the most commonly found OSCC in an Indonesian sample is located in the buccal area (26 cases) with a percentage of 27.4%. Eighty-four patients out of ninety-five patients with OSCC experienced pain due to the development of OSCC. There was a significant association between the anatomic site of OSCC and orofacial pain ($p = 0.00$) whilst a significant and positive correlation was found between orofacial pain experienced by OSCC patient ($p = 0.03$) and age. As for sex and the location of the OSCC, no significant correlations were found.

Conclusion: The high number of OSCC cases accompanied with orofacial pain in West Java Province, Indonesia indicated an immediate yet effective treatment requirement for OSCC in Indonesia

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1. Introduction

Cancer, based on the data released by the Center for Disease Control and Prevention (CDC), USA, in 2013, is still the second leading cause for death [1], and includes oral carcinoma. Based on its location and clinicopathological consideration, there are three types of oral carcinomas, which are carcinomas of the oral cavity, carcinomas of the lip vermilion, and carcinomas arising in the oropharynx [2]. According to the World Health Organization's (WHO)

Classification of Tumors of the Oral Cavity and Oropharynx, the types of oral carcinoma include the following: malignant epithelial tumors, salivary gland tumors, soft tissue tumors, hematolymphoid tumors, mucosal malignant melanoma, and secondary tumors [3].

Based on the histological appearance, the most frequent type of oral carcinoma is oral squamous cell carcinoma (OSCC). It was reported that 90% of oral carcinomas are OSCC [4,5]. Histologically, there are several types of OSCC, which are conventional, verrucous, spindle, basaloid, adeno-squamous, papillary, and muco-epidermoid and acantholytic type [6,7]. Sites of the oral region in which OSCC are most likely to be found are the tongue and floor of the mouth, with a percentage of 20–40% and 15–20%, respectively [8].

The significance of oral carcinoma including OSCC includes its mortality, survival rate, and dysfunction related to treatment [9–11], as the treatment of oral cancer might cause changes in the facial appearance of the patient. There is some variability concerning survival rate of OSCC, depending on the severity and location of

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