A REVIEW OF EPIDEMIOLOGICAL STUDIES OF ORAL CANCER AND PRECANCER IN MALAYSIA


ABSTRACT

This paper attempts to review epidemiological studies of oral cancer and precancer in Malaysia. The definitions of prevalence, incidence, risk habits and oral cancer and precancers were discussed to better understand the different types of studies conducted, which would be important in making comparisons between studies.

Currently, epidemiological data on oral cancer in Malaysia are sketchy. The only incidence data for oral cancer in Malaysia was reported by Hirayama in 1966, 35 years ago. He estimated that 3.1 new cases per 100,000 population were diagnosed for the year 1963.

A number of histopathological data of oral and maxillofacial biopsies were reported. Oral cancer accounted for one-fifth of all oral biopsies. A national study on oral mucosal lesions in Malaysia carried out in 1993/4 reported that there was a variation seen in the occurrence of oral premalignancy among the ethnic groups. The Indians and the indigenous people of Sabah and Sarawak were identified as high risk groups for oral cancer and precancer. It was also observed that both of the ethnic groups chewed betel quid.

In conclusion, the epidemiological studies have provided useful data, which may be used in planning for future oral health programmes and research towards enhancing Malaysia’s on-going effort in preventing the occurrence of these diseases.

Key words: Oral cancer, oral precancer, epidemiological studies.

INTRODUCTION

‘Oral cancer epidemiology’ is a study of the distribution of oral cancer in human populations, which is undertaken primarily for two purposes. Firstly, epidemiological studies aim to search for the determinants of oral cancer. Well designed epidemiological studies have established that the risk of oral cancer varies with time, place and individual population characteristics. This has led the researchers to search for more defined environmental exposures acting in the pathogenesis of oral cancer or the differential susceptibility of a population to such exposures. Secondly, epidemiological data provides a strong basis for the rational planning of healthcare activities. This information validates the prioritisation of healthcare services within a community. With tailoring of healthcare provision, it is possible to monitor the results and impact of secondary preventive interventions on the scale and trend of the disease in a population over time.

From a global perspective, epidemiological studies have indicated that oral cancer (140-145, ICD-9) is fast becoming an important form of cancer. In many parts of Asia, oral cancer continues to be a major health problem, where it constitutes one of the most common forms of cancer reported annually (1). The Ministry of Health Malaysia in 1996, reported that lip and oral cancer were the third most common cancer deaths in government hospitals (2). Therefore it can be regarded as an important health problem in Malaysia.

Over the years, numerous epidemiological studies of oral cancer have been conducted in Malaysia. These studies have contributed significantly to the current understanding of the disease and successfully highlighted specific risk factors affecting different sections of the population.

With the turn of a new century, it would be useful to trace and reflect upon the passage and development of oral cancer epidemiological research in Malaysia so as to provide a coherent basis for future researchers in this field. This paper summarises aspects of descriptive and analytical epidemiology derived from published literature on oral cancer and precancer in Malaysia. In addition, this review also touches upon pertinent methodological issues that have significant bearing in the planning, performing and outcome of epidemiological studies.

GENERAL CONSIDERATIONS

Malaysia at a Glance

Malaysia is situated in Southeast Asia and abuts the neighboring countries of Thailand, Indonesia and Singapore. The total expanse of Malaysia covers a land area of 329,758 square kilometres. Malaysia is often referred to as being made up of two main geographical...