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Quality of life and oral potentially malignant disorders: Critical appraisal and prospects

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Abstract

Quality of life (QoL) is a vital and often required health outcome measure that is relevant to patient care. A healthy oral cavity enables person to perform daily activities without any limitations. However, any disturbance may result in impaired QoL. The oral health-remains an essential element of people's health and well-being. In recent years, the tradition of clinical practice and research has been changed by incorporating QoL assessment, as it helps in assessment of patients' needs and monitoring treatment responses. Oral potentially malignant disorders (OPMDs) are a group of chronic disorders including oral leukoplakia (OL), oral lichen planus and oral submucous fibrosis (OSF). It is evident that patients with OPMDs experience significant health-related symptoms, functional limitations and psycho-social impairment, compromising their QoL. Moreover, the worsening of QoL has been associated with advanced stages of OPMDs. Despite of increasing number of OPMD cases in recent decades, limited literature is available regarding QoL in this population. Although, there is higher prevalence of habit-related OPMDs, particularly OSF and OL in Southern Asian countries, only a few studies have been performed in these populations. Moreover, these studies administered generic QoL instruments, which offer less sensitivity to clinical changes. However, condition-

specific instruments are more sensitive and allows better measurement of QoL. As the impacts of different conditions on OHRQoL may vary, the development and validation of a QoL instrument specific to each clinical entity of OPMDs is currently needed.

Key words: Quality of life; Oral potentially malignant disorders; Oral submucous fibrosis; Oral lichen planus; Oral leukoplakia

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Core tip: The quality of life (QoL) assessment has become an essential tool in clinical practice to better understand patient reported outcomes in recent years. It definitely helps to better understand the impact of oral health on the lives of patients with oral potentially malignant disorders (OPMDs) and their families and to monitor the outcomes of treatments. It is a foremost pre-requisite to employ the best available QoL instrument when treating OPMDs. In view of the scarcity of research on QoL assessments in OPMDs, the development and application of condition-specific QoL instruments can allow them to become tools to better understand and shape the state of clinical practice, dental research and dental education.

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INTRODUCTION

The World Health Organization (WHO) has defined quality of life (QoL) as "an individual's perception of his position in life in the context of the culture and value system in which he lives and in relation to his goals, expectations and standards and concerns"^[1]. In recent years, OHRQoL has become increasingly important in patient care and extensively applied as a part of daily practice^[2]. A healthy oral cavity empowers an individual to perform routine daily activities without any physical and psycho-social limitations. However, any disturbance related with the oral cavity may disturb normal oral functions. Persistent discomfort and a functionally impaired oral cavity may subsequently result in decreased self-confidence and social communication of the individual, compromising his or her QoL. It is well-known that OHRQoL remains an essential element of people's health and well-being and helps in assessment of patients' needs and to monitor treatment responses^[3,4]. Even though the impacts of oral diseases can be assessed by traditional methods, there is growing trend of availing patients' perspectives. Therefore,

the new era demands QoL assessment using patient reported outcomes (PROs) and experiences (PREs) as a part of day-to-day practice^[5]. Moreover, deciding proper treatment protocols and measuring treatment outcomes based on PROs and PREs is definitely helpful and has changed the tradition of clinical practice, surveys and research in recent years.

Oral potentially malignant disorders (OPMDs) are a group of chronic disorders with increased morbidity and mortality due to cancerous changes^[6]. Per recent literature, the values of the malignant potential of oral leukoplakia (OL), oral lichen planus (OLP) and oral submucous fibrosis (OSF) are 3.5% (range, 0.13-34.0%)^[7], 1.1%^[8] and 7%-13%^[9], respectively. Careful monitoring of these lesions by an experienced specialist is highly recommended to identify any malignant changes in the early stages to reduce the cancer burden. It has been documented that patients with OPMDs experience significant health-related symptoms affecting their QoL^[10]. Moreover, OPMD patients shown psychological impairment due to their fear of developing cancer^[11]. These patients also reported to have social and emotional imbalance. Although oral cancer (OC) and OPMDs presents relatively similar health comorbidities; compromising the QoL^[12], the available OHRQoL instruments are OC/head and neck cancer specific, and thus, the OHRQoL of patients suffering from OPMDs is seldom assessed. Moreover, the literature on QoL assessment in this population is scanty in contrast to the plentiful literature on QoL in OC/head and neck cancer patients^[13,14].

OSF is an OPMD that is highly prevalent in Indian subcontinents and South-East Asia, affecting 5 million people in India alone^[9]. Its etiology is multifactorial but arecoline in the areca nut is the main causative agent in initiating the disease process. OSF is clinically characterized by a early sign and a symptoms of burning sensation, vesiculation and ulceration in the oral cavity and lately followed by blanching of the oral mucosa. This results in to increasing stiffness and marked rigidity of the tissues leading to reduced mouth opening, significantly compromising the patient's QoL. It is evident that OSF have detrimental effects on OHRQoL and the worsening of QoL has been associated with advanced stages of OSF^[15].

OLP is a chronic inflammatory disorder with etiopathogenesis that is still poorly understood. OLP affects approximately 1%-2% of the population worldwide^[16] and is more prevalent in middle-aged females. It is characterized by outbreaks or flares of different types of clinical presentations, which has been categorized by Eisen^[17] into three subtypes: (1) reticular form; (2) erosive/atrophic form; and (3) ulcerative form. Even though the reticular form is asymptomatic, erosive and ulcerative forms are often painful and disabling and are variants with burning sensations of the oral mucosa. The persistent painful symptoms can have a significant negative impact on daily life activities including eating, swallowing or speaking. Moreover, OLP has been linked

with impaired psychosocial morbidity and QoL^[4,18].

The prevalence of OL is approximately 1%, with a greater number of cases seen in adults. The etiology of OL includes chewing or smoking of tobacco and related products. Clinically, OL can be classified into homogenous and non-homogenous subtypes, with the highest malignant potential reported in proliferative verrucous leukoplakia and speckled leukoplakia. OHRQoL of patients with OL was evaluated in a few past studies^[19,20].

Our recent systematic review demonstrated that the QoL of patients affected by different OPMDs has been studied and successfully assessed by various authors using different QoL instruments in European countries. However, most of these studies have focused on QoL in patients with OLP, which is not at all applicable to all OPMDs^[21]. Despite the fact that habit-related OPMDs, such as OSF and OL are highly prevalent in Southern Asian countries^[22], surprisingly, only a few studies have assessed QoL in patients with OSF and OL in this population to our knowledge. Moreover, all these studies administered QoL instruments, namely the Oral Health Impact Profile (OHIP), University of Washington Quality of Life Questionnaire (UW-QoL), Chronic Oral Mucosal Disease Questionnaire (COMDQ) and Oral Health Related Quality of Life-UK (OHRQoL-UK). However, these instruments are generic to a range of chronic oral mucosal diseases and are not condition-specific. The generic questionnaires offer less sensitivity to clinical changes than disease-specific tools^[23], as they are applicable to a wide variety of population and disease states. In contrast, it is well-known that condition-specific instruments allow for better measurement of QoL than generic questionnaires, as they evaluate the effects of a concerned disease on life quality of an individual. A condition specific QoL tool for OPMD, *i.e.*, the OPMDQoL questionnaire study, observed a significant impact of OLP and OSF compared to OL on the QoL of affected patients especially in the subscales of "physical impairment and functional limitations"^[24]. Recently, we developed and validated a condition-specific instrument for OSF patients. This was found reliable in QoL evaluation tool in an Indian population^[25].

We believe that QoL assessment has become a necessity to determine the feelings and perceptions of patients as well as to increase effective communication between health care professionals and patients. This definitely provides clues not only to better understand the influence of oral diseases on the patients and their families but also to monitor the outcomes of the treatments provided. Currently, increased incidence of OPMDs specifically OSF and OL in South Asian countries, is an alarming situation as far as oral cancer is concerned. This might be due to the increased popularity of commercially available areca nut and tobacco preparations, especially in India. In addition, an increasing number of young people are becoming addicted to this ancient, socially acceptable habit due to easy access, effective price changes and marketing strategies. In view of the scarcity

of research on QoL assessment in OPMDs, there is a dire need for more studies to better understand this situation. It is evident that researchers have been continuously focusing on improving the QoL of affected individuals. Therefore, it is a foremost pre-requisite to employ the best available QoL instrument in OPMDs. Furthermore, due to differences in their pathogenesis and clinical presentations and thus, differing impacts on OHRQoL, the development and validation of a QoL instrument specific to each clinical entity of OPMD separately is needed. Such condition-specific instruments can become tools of choice in future researches and help to improve QoL of affected individuals.

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