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ORIGINAL ARTICLE

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Correlation between symptoms and course duration of upper aerodigestive tract cancer at early and advanced stages

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Abstract

There still are many clinical and biological aspects of the natural history of cancer of the upper aerodigestive tract to be unveiled; which in Brazil is a direct consequence of the failure of systematic prevention and early diagnosis campaigns.

Objective: To analyze the signs and symptoms presented by patients with the disease at initial and advanced stages. Other variables such as disease duration, general and nutritional status were considered.

Method: A historical cohort study with a cross-section involving 895 subjects with cancer of the upper aerodigestive tract.

Results: Clinical findings were not statistically correlated with disease progression, nor with the disease in early stages, but it showed rapid disease development.

Conclusion: The results suggest a disease of insidious onset in the early stages and fast course afterwards. The long disease duration - greater than three months, was associated with worsening in general and nutritional states of patients.

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INTRODUCTION

Head and neck cancer is the sixth most prevalent primary malignant neoplasm in the world, accounting for 5% of all cancers in men and 2.5 % in women[1], being epidemiologically important in many countries worldwide, including Brazil[2,3].

The most affected anatomical site by head and neck cancer in the upper aerodigestive tract, distributed among the oral cavity (35%-40%), oropharynx (30%), larynx (25%) and hypopharynx (7%)[4]. The most prevalent histological type of cancer located in the upper aerodigestive tract is the Squamous Cell Carcinoma (SCC) in 90% of the cases, and its main etiological factors are tobacco smoking and alcoholic beverages drinking[5-7], although infection by the human papilloma virus (HPV) has been responsible for at least 10% to 30% of oropharyngeal cancers[8].

Clinical staging at the time of diagnosis is the most important prognostic factor affecting survival, but it is advanced around 75% of cases, especially in developing countries. As a result, about 40% to 60% of patients with SCC have locoregional recurrence and 20% to 30% progress with distant metastases[8]. After treatment, the overall mortality rate stands at around 40% to 60% in developed countries, with a global average around 46%[9]. The reasons described in the literature to justify this high incidence in advanced phases are distributed in a miscellany of situations: cultural and economic factors, poor social support, lifestyles, demographics and geographic factors, as well as difficulties in having access to healthcare[10-13]. There is no consensus in the literature regarding barriers to the early diagnosis of SCC.

Studies in Brazil show that the population is unaware of the risk factors associated with these cancers[14,15]. This is partially due to low levels of schooling and low household per capita income[16,17]. Another study suggests that the early diagnosis of SCC may be hampered by the fact that the initial lesions, with few symptoms, are not appreciated either by the individual or by healthcare workers[12]. They also suggest that these symptoms can be confused with other common diseases affecting the population. More so when these symptoms have never been presented to them as cancer harbingers[18,19]. Modern health thinking is based on the co-responsibility of the individual for his own health[20].

In Brazil, there are selective campaign against oral cavity or laryngeal SCC and most of them have been highly ineffective, suggesting the need for further understanding the biological and epidemiological processes behind these types of cancer[15,16,21], hence the finding of a carcinogenic lesion remains the most effective clinical intervention[22,23]. In terms of research, much emphasis has been given to the risk factors and their causal relationships, and less has been done regarding its natural clinical history.

Finally, the disease remains challenging because of its diagnoses in advanced stages, its high morbimortality[24] and hence the negative impact on budgets. There are very few correlational studies between the various symptoms, clinical staging and disease course vis-à-vis the initial diagnosis, since it may help to understand human behavior in different regions of the world and outline an epidemiological profile with specific health actions concerning the population exposed to certain risk factors.

SCCs may be considered as a separate disorder in the four anatomical sites and traditionally focused on the specialist's view or be presented as a single disease[25,26]. In this approach, there is a strong increase in its incidence, taking into account similar epidemiological aspects, and there may be a convergence of combined health actions with cost reduction - vision focused on public health. With both approaches, the present study has the "overall objective" to describe the sociodemographic, behavioral, and clinical characteristics of the sample. The "secondary objectives" are to associate disease course with its staging in initial and advances stages, as well as establish the temporal relationship of the signs/symptoms with the patients' general and nutritional status at the time of diagnosis.

METHOD

Historical Cohort Cross-Sectional Study - it follows the same characteristics of the longitudinal cohort study, however establishing a restricted time point (cut) to assess the elements studied, with no follow-up over time. For the study we selected 895 patients with SCC, between March 1996 and January 2009, seen at the head and neck surgery clinics located in Montes Claros/Minas Gerais - Brazil. We used standard patient charts from only one specialist. This study was approved (Resolution 131 - CEPEX/2008, Ethics Board under protocol # 005/2008) and did not receive funding for its execution. The variables used are described below.

Sociodemographic variables (gender, marital status, age group, place of residence and occupation) and lifestyle habits harmful to health, such as smoking and drinking alcoholic beverages, in addition to the following clinical variables: anatomical sites and