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Oral Cancer Screening Practices in General Medicine

Rosette J[1], Drouet J[2], Lasne A[3], Babin E[4,5,6], Benateau H[1,5,6] and Veyssiere A[1,5,6]*

[1]Department of Maxillofacial and Plastic Surgery, Caen University Hospital, France

[2]Department of Maxillofacial and Plastic Surgery, Francois Baclesse Cancer Centre, France

[3]Department of ENT, Francois Baclesse Cancer Centre, France

[4]Department of ENT, Caen University Hospital, France

[5]Normandie Univ, Unicaen, Bioconnect, France

[6]Department of Medecine, University of Caen Basse Normandie, France

Abstract

Introduction: Oral cavity cancers are common. Squamous cell carcinoma is the main histology and cigarette smoking and alcohol drinking are the two established risk factors. The diagnosis is late even if a visible precancerous lesion often precedes oral cavity cancers. General Practitioners (GPs) often overlook this pathology and screening is rarely carried out.

Material and Method: The Maxillofacial Surgery and the ENT Departments of both University Hospital and Francois Baclesse Cancer Centre in Caen (France) conducted a survey on the screening of oral cavity cancers by intraoral examination practices among GPs. A medical sheet was also developed for consultation assistance when the GP finds out an intraoral lesion during screening.

Results: 332 GPs answered the survey. 217 (65.4%) GPs have already discovered an oral cavity suspicious lesion incidentally or during a screening. In most cases, GPs search for an oral lesion only if the patient complains of an oral symptom. 139 (64%) of GPs who already discovered oral lesions report difficulties in dealing with this kind of lesions.

Discussion: Only a few GPs perform endo-oral screening whereas early diagnosis and treatment remain the key to improve survival of patients. Face to the difficulties described by GPs, it is important to find effective support to help GPs and to train them to perform high-quality endo-oral examination. Mouth self-examination is easy to perform, non-invasive and a low-cost method for early detection which should be learned to patients with risk factors.

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Correspondence:
Jeanne Rosette, Department of Maxillofacial and Plastic Surgery, Caen University Hospital, 14000 Caen, France,
E-mail: rosette-j@chu-caen.fr

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Introduction

According to the World Health Organization, cancer is the second leading cause of death in the world [1]. Oropharyngeal cancers represent about 10% of all cancers, and almost a quarter of oropharyngeal cancers are oral cavity cancers. There are squamous cell carcinoma in 90% of the cases [2,3]. Cigarette smoking and alcohol drinking [4] are the two main established risk factors.

Only 30% of oral cavity cancers are diagnosed at an early stage [5] whereas a visible precancerous lesion often precedes them. These precancerous lesions such as leucoplakia, erythroplakia or oral lichen planus enable early detection and treatment. Usually, any mucosal lesion persisting for two weeks after removal of possible local irritants (such as prosthetic devices or broken teeth) must be biopsied [6].

Generally, patients do not seek medical help until they describe symptoms such as pain, bleeding, mandibular fracture or palpable lymphadenopathy. The diagnosis is late, although it is clearly established that prognosis worsens as the disease becomes more advanced. It seems that an early diagnosis can greatly increase the five-year survival rate from 50% to 80% [5].

Early detection by systematic screening of the oral cavity is most of the time carried-out by dentists, but many patients do not consult their dentists regularly, whereas the GP is the doctor whom patients are most likely to go to. Nevertheless, GPs often overlook this pathology and screening for this type of lesion is rarely carried out during a GP's consultation.

According to these observations, we carried out a survey on the screening of oral cavity cancers by intraoral examination practices among GPs. Our second objective was to develop a medical sheet for consultation assistance when the GP finds out an intraoral lesion during screening.

Material and Method

The Maxillofacial Surgery and the ENT Departments of the University Hospital of Caen and the Maxillofacial Surgery and ENT Departments of Francois Baclesse Cancer Centre in Caen, France conducted a survey addressed to GPs.

A form with open-ended and multiple-choice questions was sent by post to GPs in three departments of Normandy (Calvados, Manche, Orne). The survey was also published on a social network (Facebook©) through three different closed groups entitled "Remplacements Médecine Générale Calvados", "Remplacements Médecine Générale Manche" and "Remplacements Médecine Générale Orne".

Responding to the survey takes about three minutes. GPs could answer by post or directly online through a QR code.

At the end of the survey, a file is proposed to download. This is a medical sheet for consultation assistance when the general practitioner finds out an intraoral lesion during screening. The purpose of this sheet is also to act as a consultation report which can be sent directly to the specialist. This sheet was approved by the Maxillofacial Surgery and the ENT Departments of both University Hospital of Caen and Francois Baclesse Cancer Centre in Caen.

Data was collected from September 2020 to January 2021. It was analyzed on Microsoft© office Excel and Epi Info™. Chi-square test was applied on data to try to make a link between an oral lesion discovery and GP's characteristics and the screening frequency. P-value was fixed at 0.05.

Results

The first part of the results concerns descriptive results according to the survey's responses.

Concerning the responses, 332 GPs answered the survey.

In total 176 (53%) of respondents are men and 156 (47%) women. The distribution within Normandy Departments is the following: 206 (62%) come from Calvados, 98 (29.5%) from Manche and 42 (12.7%) from Orne.

Concerning the ages of the respondents, 107 (38.9%) are younger than 35, 97 (28.9%) are aged between 35 and 50 and 129 (32.2%) are older than 50.

261 (78.6%) have their own practices and 71 (21.4%) are replacement doctors. 258 (77.7%) work in a town of fewer than 25,000 inhabitants.

The first questions of the survey concern tobacco smoking and alcohol-drinking patients' practices. Globally, during a consultation 216 (65%) GPs regularly ask their patients about tobacco smoking and 82 (24.7%) of them ask systematically. Concerning alcohol consumption, 194 (58.4%) ask regularly and 25 (7.5%) systematically. 33 (9.9%) of them systematically carry out alcohol and tobacco prevention, and 203 (61.1%) do so regularly.

Concerning the discovery of a suspicious lesion of the oral cavity 217 (65.4%) GPs have already discovered one incidentally or during a screening. In most cases, 216 (65%) GPs search for an oral lesion among patients without any risk factors only if the patient complains of an oral symptom.

Among patients with risk factors, 27 (8.1%) of GPs search systematically for an oral lesion during a classic consultation, but 113 (34%) searches only if the patient complains of any oral symptom.

Concerning the endo-oral examination, 57 (17.1%) GPs perform an endo-oral palpation systematically or regularly. Dental examination is made systematically by 98 (29.5%) GPs and 296 (89.2%) perform palpation of cervical lymph node areas systematically.

When they discover an oral lesion, 234 (70.5%) GPs refer their patients to ENT, 53 (15.9%) to an oral surgeon or and 45 (13.9%) to a maxillofacial surgeon. 25 (7.5%) GPs prescribe a radiological assessment before referring their patients to a specialist. 7 (2.1%) GPs have already performed a biopsy before referring their patients. 139 (64%) of GPs who reported already discovering oral lesions report difficulties in dealing with this kind of lesions. Such difficulties are described as follows, namely:

- Difficulty telling the difference between a benign and a malignant lesion.
- Difficulty obtaining a consultation with a specialist.
- Difficulty localizing and describing the lesion.
- Not knowing what radiological assessment to prescribe.

Finally, 296 (89.2%) GPs think that a "consultation help file" could be useful.

The second part of the results concerns Chi-square test's results.

According to GPs' characteristics, men discovered more suspicious oral lesions than women did (p=0.021). It is the same for older GPs (p=0.00015) or practice-based GPs (p=0.037) with statistically significant differences.

The number of inhabitants of the town where the GPs work was not statistically linked to the number of suspicious oral lesion discoveries (p=0.47).

Among patients without any risk factors, the number of suspicious oral lesions discovered was greater, with statistically significant differences, when the endo-oral examination was systematically or regularly done (p=0.0016).

Among patients with risk factors, the number of suspicious oral lesions discovered was also greater, with statistically significant differences, when the endo-oral examination was done systematically or regularly (p=0.000).

Discussion

Oral cavity cancer is a real clinical, social and economic burden in our society [1].

This pathology is often overlooked by GPs and another difficulty is to follow patients with risk factors such as tobacco smoking or alcohol drinking.

Many oral mucosal disorders with an increased risk of malignancy are described and are listed as Oral Potentially Malignant Disorders (OPMD) [7]. The majority of these disorders may be asymptomatic in the early stages of their evolution and may be detected after a routine oral examination. It is essential therefore, that health professionals are knowledgeable of the clinical features and diagnostics. In addition, early diagnosis and treatment remain the key to improve survival of patients [8], because as yet oral cancer has a poor prognosis and is often detected at a late stage [9]. Yet, patients seek medical attention only at an advanced stage [10].

Our survey has obtained 332 answers, allowing for a good representation of GPs practice in carrying out endo-oral examinations in Normandy. But our study concerns only three French Departments.

However, the response rate is difficult to evaluate. Indeed, the national council of the medical order identifies 2171 GPs in Normandy (practice-based or replacement GPs). We sent our survey by post only to practice-based doctors, meaning 1200 GPs. That is why we also published our survey on a social network, to try to target replacement doctors.

Tobacco smoking and alcohol drinking are the two main established risk factors [4] for oral cavity cancer and they seem to have a synergistic effect [2] in the etiology of oral cancer, which makes oral cavity cancer one of the most common preventable cancers in the world [10]. GPs seem to ask their patients easily about smoking habits, but alcohol consumption habits are likely to be more taboo.

Many GPs practice tobacco or alcohol prevention during consultation, but our survey did not ask GPs how they do so.

Among patients with risk factors, only 8.1% GP search systematically for a suspicious oral lesion, and among patients without risk factors, they usually do an endo-oral examination only if the patient is symptomatic. Therefore, only a few GPs perform endo-oral screening.

Few GPs perform a complete endo-oral examination that combines inspection and endo-oral palpation. Yet it may be argued that palpation should be done systematically during endo-oral examination, as this allows for detection of submucosal lesions and allows for an accurate assessment of the disease's extent, of the presence of bone invasion or of a skin breakdown [2].

Nearly 90% of GPs perform palpation of cervical lymph node areas systematically.

Only 7.5% of GPs prescribe radiological assessment before referring their patients to a specialist: Two different points could be discussed. On the one hand, prescribing radiological assessment before consulting a specialist allows most of the time for swift care if the suspicious lesion is found to be malignant. In addition, as the specialist often does a biopsy, it is a way of doing the imagery before the biopsy, so that images have a better quality. On the other hand, radiological assessment should be reserved for patients with malignant lesions, to avoid irradiating patient who merely have benign oral lesions, but telling the difference between benign and malignant lesions is one of the difficulties reported by the surveyed GPs.

Referring their patients to a specialist is also a difficulty reported by GPs: Many of them do not know where to refer their patients, and they often have difficulty getting a quick appointment. Indeed, only 13.9% of GPs refer their patient to maxillofacial surgeons, meaning that this specialty either is not really well known by GPs or is underrepresented in Normandy.

According to our statistical results, GPs who screen patients with or without risk factors found more suspicious endo-oral lesions, which proves the importance of screening.

Most of the GPs in the survey report many different difficulties in dealing with this kind of pathology, meaning that it is important to find effective support to help GPs and to train them to perform high-quality endo-oral examination.

This is why we offer at the end of the link, a downloadable file to help GPs when they discover a suspicious lesion of the oral cavity. The purpose of this file is to help them during consultation, to locate the lesion and determine, according to the criteria of the lesion, whether to refer the patient urgently to a specialist. It can also be used directly as a referral letter to the specialist, and the contacts of the referring medical departments of the region are indicated above. It is also specified to provide indications as to what anticoagulants should be administered in view of a specialized consultation for a possible biopsy.

It could also be offered to general medicine interns or even to practice-based GPs in their practical training sessions, as a means to promote high-quality endo-oral examination.

Strengthening the links between GPs and specialists also seems essential for allowing generalists to quickly seek specialist insight for timely patient care.

It may also be interesting to carry out prevention with patients with risk factors, by better educating about lifestyle-related risk factors [2] and by explaining the benefits of going regularly to their general practitioners or dentists for an endo-oral control examination. Furthermore, high-risk patients usually belong to lower socioeconomic groups, a factor that is also correlated to less frequent attendance at dental clinics [11]. Therefore, health education for oral self-examination through printed as well as visual media is crucial and should be provided publicly. Indeed, oral cavity cancer usually occurs at accessible sites, that lend themselves to early detection by visual inspection and palpation. Mouth self-examination is easy to perform, non-invasive and a low-cost method for early detection [10]. An Australian experimental study even showed that mouth self-examination reduced the morbidity and mortality of oral cavity cancers [11].

In our study, we were able to demonstrate the importance of oral cancer screening through quality endo-oral examination. Only but a few GPs practice this screening and even the ones who do often find themselves in difficulty upon discovering a suspicious endo-oral lesion.

We offered a consultation help file to doctors, but we do not have any feedback for the moment. It also seems essential to make patients aware of mouth self-examination as a means of quickly alerting their doctor in the event of the discovery of a suspicious lesion.

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