

### Delayed Presentation of Oral Cancer: A Case Report

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#### Received

27<sup>th</sup> February 2021

#### Received in revised form

15<sup>th</sup> June 2021

#### Received in final revised form

28<sup>th</sup> July 2021

#### Accepted

22<sup>nd</sup> August 2021

#### Published

1<sup>st</sup> September 2023

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## ABSTRACT

Non-healing, persistent mouth ulcer is a risk for cancer. At an early stage, oral cancer is usually painless and may lead to delayed diagnosis. Herein we describe an adult, with a chronic non-healing tongue ulcer, who presented to a dentist and multiple general practitioners (GPs) and had a delayed appointment to see the tertiary healthcare centre for a diagnostic work-up. The patient's lack of awareness of his oral ulcer's risk and his condition's urgency further added to the delay. The delay in the diagnostic work-up could be improved by having an organized well-defined effective pathway to confirm or disprove the suspicion of cancer. Initial radiological imaging indicated a localized mass with no distant metastasis, and pathological findings confirmed squamous cell carcinoma. The patient underwent a partial glossectomy followed by chemotherapy and radiotherapy. Unfortunately, cancer progressed and advanced to stage 4, and the patient succumbed to cancer complications one year after the initiation of treatment. This article aims to create awareness among primary healthcare professionals to recognize the potential benefits of early intervention, thus minimizing unfortunate late presentation instances.

**KEYWORDS:** Mouth ulcer, Squamous cell carcinoma, awareness, healthcare seeking behavior, late diagnosis

## INTRODUCTION

Early diagnosis and appropriate treatment of oral cancer are associated with improved survival and quality of life. Unfortunately, a large proportion of patients with oral cancer present late [1]. Patient-related factors are known reasons for delayed presentation. Mostly, patients who lack knowledge of head and neck cancers and those who do not expect cancer diagnosis are more likely to postpone their consultation follow up [2]. Additionally, primary healthcare professionals' ability to recognize early cancer signs and symptoms and proactively initiate a prompt referral to the tertiary centre are other contributing factors towards delayed cancer diagnosis [3]. An early cancer diagnosis is a continuum process and delays may occur along the entire pathway.

## CASE PRESENTATION

A 30-year-old man, a smoker, presented to the otorhinolaryngology clinic with a one-year-old referral letter from his general practitioners (GPs) about his chronic non-healing tongue ulcer. The history taken for this case write up was based heavily on the patient's recollection of events and the very brief referral letter. At the time when the patient attended the tertiary centre, the ulcer had been present for two years. His symptoms started with pain during chewing for four months. The pain was followed by the appearance of an estimated, 0.5 x 0.5 cm painful ulcer, white in colour, located at the right lateral aspect of his tongue. The ulcer started to develop into a small central shallow crater one month later. Thinking this could be due to friction from his tooth, he saw a dentist who removed his right lower



molar. Despite having his molar removed, the ulcer remained and never subsided. Following his tooth removal, he started to have an unexplained weight loss. He lost approximately 12 kg over a time duration, which he couldn't clarify. Losing that much weight had made him very worried and concerned about the persistent painful ulcer in his tongue. He decided to go to a traditional healer for symptomatic relief. The traditional healer provided him with some remedies but sternly informed him to see a doctor instead.

This nudged him to start seeking further care from nearby GPs. The patient was not sure when he first saw a GP and how many GPs he had visited. However, during all his visits to the different GP clinics, antibiotic and symptomatic treatment was dispensed for his unresolved painful tongue ulcer. Around seven months from when he started seeing the GPs, (one year from the time the initial pain started), the patient was able to see that the tongue ulcer had elongated to roughly  $2.0 \times 0.5$  cm (showing the length using his fingertip as a rough estimate of length). The elongated ulcer at that time was also felt hardened on its edges. During the last two GP

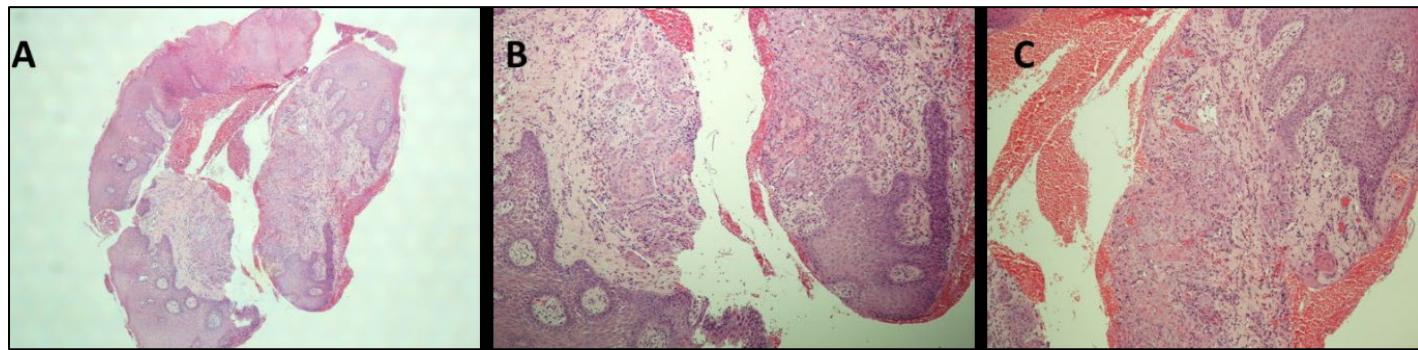
clinic visits (unable to clarify the time gap), the patient was informed of the probable diagnosis of tongue cancer and referral letters were given to him for him to go to the nearest tertiary healthcare centre. The patient attempted to make an appointment at the public tertiary government hospital but abandoned the effort due to a long waiting period for an appointment. There was no follow-up appointment given by the dentist or the GPs.

All along, the patient felt the ulcer was not a serious matter, and that cancer was a remote possibility. Roughly, five months after his first attempt to get an appointment at the tertiary centre, (two years from when the symptoms first appeared), he finally visited the hospital and says it was mainly due to the persuasion from his wife.

Based on the clinical record on his first otorhinolaryngology specialist clinic visit, the intraoral examination revealed a firm and indurated ulcer about  $3.0 \times 2.0$  cm at the tongue's right lateral border (Figure 1). A biopsy taken from the lesion confirmed the presence of malignant squamous cells with desmoplastic stroma infiltration (Figure 2).



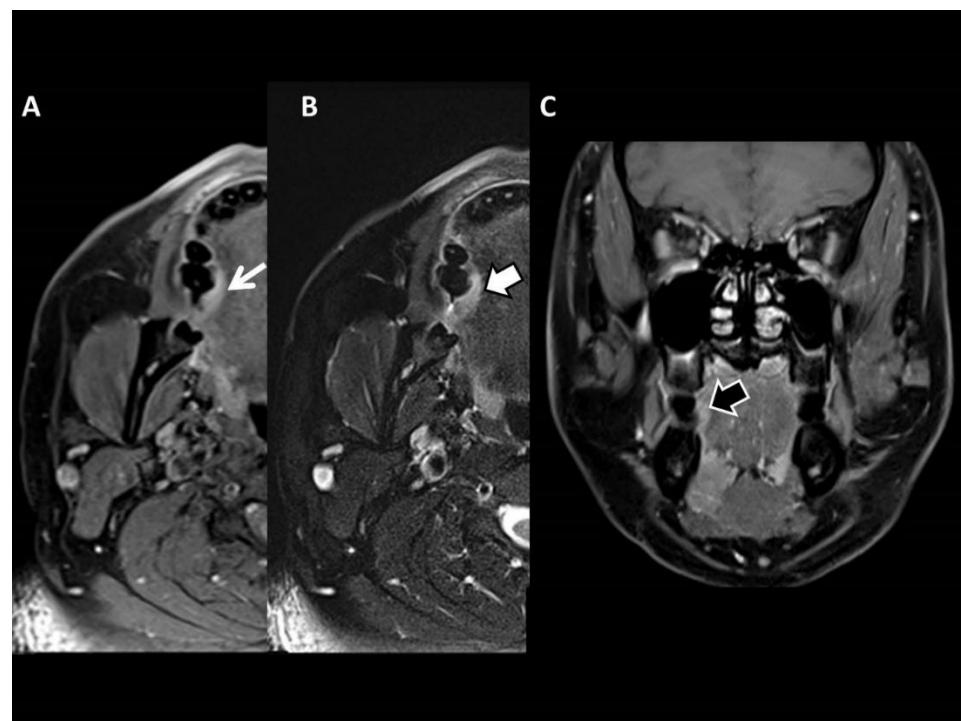
**Figure 1** Intraoral view showing an ulcer on the right lateral border of the tongue



**Figure 2** Histopathology findings from the biopsy taken from the lateral border of the tongue. Figure A showing a fragment of focally haemorrhagic tissue covered by thickened stratified squamous epithelium. The underlying desmoplastic stroma is infiltrated by malignant squamous cells. (H&E, x4). Figures B and C show at higher magnification (H&E x 20) the cords and clusters of malignant squamous cells infiltrating into the desmoplastic stroma

A contrast-enhanced computed tomography (CT) scan of the neck, thorax, abdomen and pelvis was performed, which revealed no evidence of distant metastasis. However, as the primary tumour was small, it was not demonstrable on the initial CT scan. A magnetic resonance imaging (MRI) of the tongue and neck was then performed. It revealed a small lesion in the right lateral aspect of the tongue, which exhibited hyper-intense signal on T1 weighted images (T1WI) and T2 weighted fat saturation images (T2WI),

and enhanced post contrast administration. The area of enhancement measured approximately  $1.5 \times 0.7 \times 1.3\text{cm}$  (Figure 3). The patient underwent a partial glossectomy on the right side of the tongue, followed by six chemotherapy cycles and 35 radiotherapy sessions. The patient received palliative chemotherapy and radiotherapy and succumbed to the complications of tongue cancer and heart failure roughly around three years from the time his symptoms first appeared.



**Figure 3** MRI of the patient with carcinoma of the tongue demonstrating a small lesion at the right lateral edge of the tongue, which showed hyperintense signal on T1-weighted fat saturation images (T1WI) (A), a hyperintense signal on T2-weighted fat saturation images (T2WI) (B), and enhancement post gadolinium administration on T1-weighted fat saturation images (C)

## DISCUSSION

Oral cancer can affect the lips and oral cavity and its incidence is highest in South-Central Asia. More than 90% of oral cancers are squamous cell carcinoma (SCC). There has been an increasing trend of oral SCC detected among those below 45 years of age, and tobacco is among the most common risk factors [1]. This case report is a confirmed case of SCC as evident from the histopathological results.

An early cancer diagnosis is a continuum process starting from the patients' presentation, which then links to the primary healthcare professionals and then to the specialist tertiary care. The public has to be mindful of the emergence of potential cancer symptoms and be able to proactively seek healthcare providers for further care. A common reason for late presentation among cases of oral cancer in Malaysia is the failure of the patient to identify the signs and symptoms of early oral cancer [3]. This results in delays by the patients in seeking [4] and consulting the doctors for their symptoms [5]. Patients' delays in consulting a doctor [6] are multifactorial [5,7,8]. Factors contributing to the delays include sociodemographic, health-seeking behaviour, previous health experiences, high-risk behaviours such as smoking and alcohol consumption. [5] and psychological factors [5,8]. However, locally, within the Malaysian context, seeking traditional healers as a health resource has been a contributing factor [4]. In our case, the patient first went to seek treatment from a traditional healer before he presented to his GPs. The patient treated his tongue ulcer as a minor ailment and felt he did not require immediate medical attention. Possible reasons to explain this could be that patients do not immediately interpret their symptoms as something sinister [7].

The identification of patients with possible cancer usually occurs in the primary care setting because it is the usual and most easily accessible first point of contact for patients. To reach a cancer diagnosis, the dentists and GPs must be able to recognize the early signs and symptoms of cancer or cancer in its early stages and initiate a prompt and appropriate referral to the tertiary centre for timely and high quality clinical and diagnostic assessment to confirm the diagnosis and for the delivery of a

personalized treatment plan [9]. Unfortunately, delays sometimes also occur in the referral pathway. Reflecting on this case, the patient presented to a community dentist immediately following the appearance of a shallow ulcer on his tongue following four months of pain on chewing. At that time, his molar tooth was removed presumably suspecting the molar tooth as a cause of his ulcer. The patient then attended to two different GPs for his continuing problem.

This case highlights the deficiency in the follow-up system at the primary healthcare professional, where the patient did not receive a concrete follow-up plan either from the dentist or the GPs. The GPs' and the dentist's role in navigating referrals, especially on matters related to the probable diagnosis of cancer, is crucial. In this case, two different GPs had issued referral letters directly to the patient for him to attend a tertiary healthcare centre for further management. However, the patient's reluctance led to a significant delay in him seeking timely treatment from a tertiary healthcare centre. This case did not identify any direct communication between the primary healthcare professionals with the tertiary team with regard to the patient's condition during this referral process. The lack of means of communication between the GPs and tertiary healthcare centre can further delay the patient's presentation to the specialist team. Non-healing oral ulcers that go beyond two weeks and with pain on chewing are red flag symptoms and necessitate early or urgent referral to the tertiary centre [3]. Some countries have a clear pathway and system put in place for the primary healthcare professionals to identify and refer patients to the tertiary centre. National Institute for Health and Care Excellence guideline recommends that a referral for an appointment for patients with suspected cancer should be done within two weeks for anyone who presents with a non-healing ulcer of more than 3 weeks duration [10]. Within a local system where there is no clear established automated referral system, the primary healthcare professional is best to take a proactive stance by calling the interested specialist to enable communication of their concerns and a sense of urgency to secondary healthcare professionals. Furthermore, direct communication allows a referral date to be established there and then for the patients to take notice of and to go to see the specialist [10].

However, the patient's attempt to make an appointment at the public tertiary healthcare centre was abandoned due to a long waiting period. The delay, in this case, highlights several shortcomings of the public healthcare services, including referrals, patient load, scheduling of investigations and treatment [7]. Patients who experience long waiting times at public hospitals report that they needed to resort to putting on an extra effort by getting up very early in the morning to arrive at the hospital to beat the queue. Even when they arrive before the counter opening time, there would already be a long queue waiting. Their experience showed that they had to face multiple queues at various counters, each lasting from minutes to hours [11]. This is not surprising as public hospitals cater the bulk of the population, estimated at 65% of the population [12]. These experiences discourage patients who have a busy work schedule, pose considerable stress to the patients, inevitably resulting in many patients abandoning their appointments [11]. A survey conducted on healthcare workers and others employees found that they perceived the long waiting time was due to a heavy workload, inadequate facilities, management and supervision problems and work process [13]. Since the different hospital settings may have their unique challenges, more research is needed to explore the issues regarding long waiting times so that amenable measures can be taken to reduce the waiting time. We know that there are regular ongoing audits conducted at each hospital setting to formulate strategies to improve the clinic waiting time within the constraints of the public healthcare delivery system. This quality improvement effort is one great continuous effort to improve and reduce waiting times.

As GPs are often the patients' first point of contact, the GPs must be proactive in handling suspected cancer cases. Thorough and careful clinical consultation is needed to identify signs and red flags of early cancer and spend adequate time breaking the news of probable cancer diagnosis and explaining the referral plan. Necessary actions may need to be taken to accelerate access for early diagnosis and treatment. Follow up should also be offered to monitor the patient's clinical progress and find out how the patient is coping in navigating through the healthcare system [7]. The GPs should be aware of the available cancer

service provisions within their practice setting. Effective communication between primary healthcare professionals and tertiary healthcare centres is vital for allowing the accurate transfer of patients' clinical data and expediting referrals [14] according to their urgency. It is important to take note that most of the history related to the patient's initial ulcer progression and interaction with the primary healthcare professionals was based on the patient's and his wife's recollection of the events. We are aware that people tend to remember past events unreliably and their recollection changes over the course of their lives but we tried our best to interview the patient several times after he presented to the ENT specialist, prudently gathering past information as accurately as we could without putting too much pressure on him and his delay in seeking treatment which seems to be due to his own reluctance and poor understanding of the problem that was exacerbated by the poor communication between the primary care providers and the tertiary healthcare centres.

## CONCLUSION

In conclusion, non-healing tongue ulcers should be treated with urgency. The dentists and GPs who commonly are the first point of contact with patients presenting with early signs of oral cancers should identify the red flag symptoms and initiate an urgent referral to the tertiary centre for prompt diagnosis and timely treatment initiation. There is a need for better communication between the primary care providers and tertiary healthcare centres to help in reducing patient-related delays.

## Consent

Consent has been obtained from the patient to publish the case report.

## Conflict of Interest

Authors declare none.

## Acknowledgements

The authors would like to thank the otorhinolaryngology specialists and other multidisciplinary team members from University Teknologi MARA and General Hospital Kuala Lumpur

who were involved in treating this patient while he was in the ward and when attending out-patient clinics.

### Authors' contribution

KAM performed the literature search. KAM, ABP, NKM and NDMA wrote and edited the manuscript. All authors approved the final version of the manuscript used for publication.

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