Clinical identification of tongue cancer: a case report series

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ABSTRACT

Background: *Dentists play an important role in oral cancer case finding. Dentists in the first line of healthcare can make identification through history taking and clinical examination.*
Case: *The first case; a 40-year-old female complained of tongue ulcers sinces 2 months. The patient had articulation changes and clinical examination results of T2 N2a. The second case; 43-year-old male complained of tongue ulcers sinces 5 months. The patient had articulation changes and the clinical examination result was T2 N2a. The third case; 65-year-old male complained of tongue ulcers sinces 2 years. The patient had changes in articulation and clinical examination results T2 N2a. All patients were referred to an oncological surgeon.*
Conclusion: *The change in the patient's voice, the discovery of extraoral lymphadenopathy (N), and the description of intraoral lesions (T), formed the basis of the patient's referral to an oncological surgeon.*

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INTRODUCTION

The prevalence of oral cancer in 2015 - 2019 was 14,197 people or 5.19% of overall cancer cases in Indonesia. Oral cancer is ranked 17th in the discovery of new cancer cases, and is ranked 15th as the cause of death due to cancer.[1,2] Dentists play an important role in the discovery of oral cancer cases. Routine examination of the clinical condition of the oral cavity, can identify oral mucosal lesions suspected of oral cancer.[3] Dentists have competence in procedural skills for identification, initial treatment, and referral of oral cancer patients.[4]

Oral cancer can be identified through history taking, general physical examination and stomatognathic system, and supporting examination.[2,5] Supporting examinations can only be carried out by dentists who have received training and carried out in adequate health facilities. Dentists in the first health service can make identification through history taking and clinical examination. Clinical findings and anamnesis results can be the basis for referral to an oncological bursar specialist for further examination and treatment. The author will report the discovery of 3 (three) cases of oral cancer and their management.

CASE 1 (1ST author case)

A 40-year-old woman complained of mouth ulcers due to biting, then a lump on the lateral tongue sinces 2 months. The patient could perform verbal communication (autoanamnesis), but there was a faint change in the pronunciation of the letter "R". Extraoral examination found lymphadenopathy in the submandibular region dextra with a diameter of ± 1cm. The patient could open the mouth nomally. On intraoral examination, there was limited tongue movement, on the lateral tongue dextra there was a tumour with a diameter of ± 3cm and there was a major ulcer on the surface. The patient was referred to an oncological surgeon, with a diagnosis of suspected tongue cancer and a clinical condition of T2 N2a.

Figure 1. Clinical Photo of Case 1

CASE 2 (1st & 2nd authors case)

A 43-year-old man complained of difficulty eating due to pain caused by ulcers on the tongue since 5 months ago. The sores appeared due to friction with sharp teeth. The patient was not fluent in verbal communication, so the anamnesis process was carried out by autoanamnesis and aloanamnesis with the accompanying family. The patient had difficulty pronouncing the letter "R". Extra oral examination found lymphadenopathy on the submandibular dextra with a diameter of ± 3cm. Intra oral examination showed that the tongue was difficult to move, on the lateral tongue dextra there was a tumour with a diameter of ± 3cm accompanied by a major ulcer at the apex of the lesion. There was lymphadenopathy on the sublingual dextra with a diameter of ± 5cm. The patient was referred to an oncological surgeon, with a diagnosis of suspected tongue cancer and clinical condition T2 N2a.

Figure 2. Clinical Photo of Case 2

CASE 3 (1st & 3rd authors case)

A 65-year-old male complained of difficulty eating due to pain from mouth ulcers on the tongue since 2 years ago. Aloanamnesis was conducted with the patient's family. The patient could not communicate verbally clearly, only a hoarse voice was heard and the pronunciation of the letter "R" was not heard. Extra oral examination found lymphadenopathy on the submandibular dextra with a diameter of ± 3cm. Intra oral examination showed that the tongue was difficult to move, on the lateral tongue dextra there was a tumour with a diameter of ± 3cm accompanied by a major ulcer at the apex of the lesion. There was lymphadenopathy on the sublingual dextra with a diameter of ± 5cm. The patient was referred to an oncological surgeon, with a diagnosis of suspected tongue cancer and a clinical condition of T2 N2a.

Figure 3. Clinical Photo of Case 3

DISCUSSION

CLINICAL EXAMINATION

Speech impairment is one of the indications of tongue cancer patients.[6,7] Tongue cancer damages the structure of the tongue and interferes with pronunciation.[7] Speech disorders are detected during the history taking process between the doctor and the patient.[6,7] Swallowing disorders and speech disorders are symptoms that are often found in patients with head and neck cancer.[8]

To strengthen the suspicion of oral cancer, extra oral and intra oral clinical examinations are necessary. Clinical examination is focused on examining the lymph nodes (N) to find the presence of lymphadenopathy and the clinical picture of intra oral lesions. The clinical picture in question is the presence of a clinical picture in the form of a tumour (T) either clinically visible or not clinically visible, but palpable on digital examination using a finger (*depth of invasion*). The combination of lymph node examination and the clinical picture of intra oral lesions results in the prediction of the clinical stage of oral cancer.[9]

Lymph node examination is performed by standing with the patient's back to the patient. The patient is asked to bow and tilt the head, so that the sternocleidomastoid muscle relaxes. Palpation is performed on the lymph node region, to identify the presence of lymphadenopathy.[10] Lymph node examination includes the following regions: submental, submandibular, pre-auricular, post-auricular, parotid, occipital, jugulodigastric and posterior.[10,11]

Figure 4. Illustration of the Lymph Node Examination Position.[10]

Figure 5. Illustration of the Lymph Node Examination Region.[11]

Table 1. Extra oral lymph node examination table.[9]

Condition Category Extra Oral Lymph Nodes	Description
N 0	No lymph node abnormalities found
N 1	Single unilateral lymphadenopathy ≤3 cm in diameter
N 2a	Single unilateral lymphadenopathy 3 - ≤6 cm in diameter
N 2b	Unilateral multiple lymphadenopathy ≤6 cm in diameter
N 2c	Bilateral or contralateral lymphadenopathy ≤6 cm in diameter
N 3a	Lymphadenopathy >6 cm in diameter
N 3b	Lymphadenopathy accompanied by ENE. ENE (extranodal extension) = Clinically obvious lymphadenopathy

Table 2. Intra oral lesion examination table.[9]

Condition Category Oral Lesion	Description
T1	Lesion diameter ≤ 2cm and DOI (Deep of Invasion) ≤ 5mm
T2	Lesion diameter ≤ 2cm and DOI 5 - ≤ 10mm, or Lesion diameter 2 - ≤ 4cm and DOI ≤ 10mm
T 3	Lesion diameter > 4cm, or DOI > 10mm

Table 3. Clinical Stages of Oral Cancer.[9]

Clinical Stage	Description
1	T 1 - T 2 accompanied by N 0 - N 1
2	T 3 or N 2
3	T 4 or N 3
4	There is metastasis (M1)

REFERRAL AND PALLIATIVE CARE

Dentists are competent for the identification and initial treatment and referral of patients with squamous cell carcinoma disease.[4] Patients who have symptoms and signs of clinical stages of oral cancer are referred to an oncological surgeon. The contents of the referral to the oncological surgeon are the results of the patient's clinical examination and provisional diagnosis. The results of the patient's clinical examination can be written with the code T N, for example: T2 N2.[2,5,12]

Palliative treatment can be given in the form of giving anti-pain drugs in the form of drugs; non-steroidal anti-inflammatory, opioids, non-opioids, and adjuvants (corticosteroids, antidepressants, antiepileptics, *muscle relaxants, antispasmodics*). IEC (Educational Information Communication) procedures can be provided in the form of; warm compress instructions, avoiding activities that aggravate pain, psychological assistance, and *psychotherapy*).[13–15]

Table 4. Table of Pain Treatment in Cancer Patients.[13]

Pain	Analgesics	Drug of choice	Other drugs
Lightweight	Non opioid +/- Adjuvant	**NSAID***	**Paracetamo**l 500mg - 1000mg every 4hours Max: 4grams per day
Medium	Weak opioids +/- Adjuvant Non opioid +/- Adjuvant	**Codein** 0.5-1mg/kg/day Max: 60mg Side effects: sedation, hypotension, nausea, vomiting, constipation	**Tramadol** 2mg/kg/day Max: 8 mg/kg/day Side effects: nausea, vomiting, shortness of breath
Weight	Strong opioids +/- Adjuvant Non opioid +/- Adjuvant	**Morphine**	**Fentanyl**

Table 5. Table of Non-Steroidal Anti-Inflammatory Group Drugs for Cancer Patients.[13]

NSAID drugs orally	Adult Dose (mg)	Interval (hour)	Maximum dose/day
Celecoxib	100 - 200	12 - 24	400
Diclofenac	25 - 50	8 -12	150
Ibuprofen	200 - 400	6 - 8	2400
Ketoprofen	50 - 100	6 - 12	200
Ketorolac (max 3 days)			
Age < 65 years	10	4 - 6	40
Age > 65 years	10	6 - 8	30 - 40
Mefenamic acid	500	8	1500
Meloxicam	7,5 - 15	24	15
Piroxicam	10 - 20	24	20

CONCLUSIONS

Dentists have the competence and play an important role in the discovery of oral cancer cases. Routine extraoral and intraoral clinical examination is the key to identifying and referring oral cancer cases. Changes in voice and pronunciation during the history taking process can be used as an initial suspicion of oral cancer. The finding of lymphadenopathy on extraoral lymph node examination and the morphology of intraoral lesions are the basis for writing a patient referral to an oncological surgeon.

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