

=Abstract=

Treatment and diagnosis of oral pain without identifiable oral mucosa lesion

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Objectives : Oral pain without identifiable oral mucosa lesion is probably multifactorial origin, which include burning mouth syndrome (BMS), oral candidiasis and so on. The aim of this study was to analyze the characteristics of oral pain without identifiable oral mucosa lesion and to evaluate treatment outcome of those patients. **Materials and Methods :** We reviewed 50 patients without identifiable oral mucosa lesion who were complaint of oral pain. The patients were analyzed according to the sites, associated symptoms, laboratory tests and fungus culture. The questionnaire included questions on their current diseases, smoking and alcoholic history, psychological factors, and symptoms. **Results :** The average age of patients was 60 years old. The most frequently involved site was tongue (92%), followed by palate, lower lip, oropharynx, and gingiva. 60% of the patients has psychological disorder as self reported. Culture for Candida was positive in 36% of patients and serum zinc deficiency was present in 60% of patients. Serum iron, vitamin B12, hemoglobin, folic acid deficiency were present in 6-2% of patients. Seventeen patients (65%) with BMS and twelve patients (66%) with oral candidiasis were improved after treatment. **Conclusion :** We recommend oral candida culture to oral pain patients without oral mucosa lesion. Zinc supplementation of zinc depletion patients may be helpful whereas other laboratory tests have no diagnostic values.

Key Words : Burning mouth syndrome, oral candidiasis, zinc

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cholordiazepoxide, nystatin, pyridoxine, , capsaicin

1)8)9)

가 10)11)

26%

12)

2005 3 2006 4

50

(2-13)

가

가

(0), (1), (2), (4), (5)

Table 1. Patients characteristics (N=50)

Characteristics	Number of patients (%)
Gender	
Male	12/50 (24)
Female	38/50 (76)
Age (years)	
Mean	60 (20-83)
Past Medical History	
HTN	14/50 (28)
DM	3/50 (6)
Social History	
Alcohol	8/50 (16)
Smoking	7/50 (14)
Psychological problem (as self-reported)	30/50 (60)

50 (76%), 12 (24%), 38 (76%)

60 (76%), 20 (24%), 83 (76%)

3 (6%), 14 (28%), 8 (16%)

7 (14%), 30 (60%)

(Table 1).

가 17 (34%), 7 (14%), 5 (10%) (Table 2).

가 46 (92%), 가 11 (22%)

Table 2. Associated symptoms with oral pain (N=50)

Associated symptoms	Number of patients (%)
Dry mouth	17/50 (34)
Taste change	7/50 (14)
Dry mouth and Taste change	5/50 (10)

Table 3. The sites of oral pain (N=50)

The sites	Number of patients (%)
Tongue	46 (92)
Palate	8 (16)
Lip	7 (14)
Oropharynx	7 (14)
Gingiva	5 (10)

8 (16%), 7 (14%), 7 (14%),
5 (10%) (Table 3). 50 18
(36%)가 ,
32 (64%)

(Table 4).

Table 4. Reference value (normal ranges) for laboratory test performed in the present study

Laboratory test	Conventional units
Zinc, serum	70-150 ug/dL
Iron, serum	50-130 ug/dL
Vitamin B12, serum	211-911 pg/ml
Folate, serum	5.4ng/ml
Hemoglobin, serum	12-16 g/dL
ESR	0-20 mm/hr
T3	98-180 ng/dL
TSH	0.4-5.0 uU/ml
Free T4	0.8-1.9 ng/dL

가
20 (40%) 13 ,
7 .
76.5ug/dL (52-116) 가
20 (40%) 46.3ug/dL .
12
1 , B12 가 가 2 ,
가 1 .
가 (Table 5).

18 (100%),
26 (81%) .

12 (66%), 17
(65%)가 (Fig. 1).

Table 5. Abnormal laboratory variables with oral pain (N=50)

Laboratory test	Number of patients (%)
Candida culture positive	18/50 (36)
Zinc, serum	20/50 (40)
Iron, serum	3/50 (6)
Vitamine B12, serum	2/50 (4)
Folic acid, serum	1/50 (2)
Hemoglobin, serum	1/50 (2)
Ferritin, serum	0/50 (0)
ESR, serum	0/50 (0)
Thyroid function test	0/50 (0)

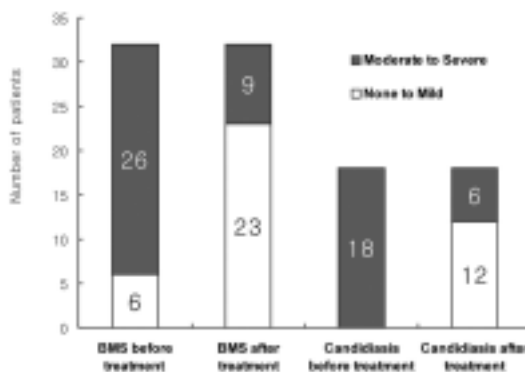


Fig. 1. Change of oral pain after treatment

7:1 가
3:1 가 가
60 Choung 13) 56.4 가
가

7)13) 8)12)14)

60%가 Andrea¹²⁾ 가 B12, 92%, 63% 가 B12, 가¹²⁾¹⁵⁾ 가⁵⁾ 가 40% 가 가 2/3,¹³⁾ 가 (16%), (14%), 가 92% 가 (14%), (10%) 가 Osaki¹¹⁾ 가 , Terai¹⁰⁾ 가 가 Sardella¹²⁾

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