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*Brief Research Report*

# Effectiveness of Identafi® in Evaluation of Precancerous Oral Lesions

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**ABSTRACT**

**Aim**
To examine the role of the Identafi® device in early diagnosis of the nature of oral lesions.

**Results**
Buccal mucosal lesions that diagnosed Kreatosis were the most seem lesion in oral area.

**Conclusion**
It has been observed that the indentative device provides convenience to the physician in the early diagnosis of precancerous oral lesions and some tissue formations that may be overlooked can be reached.

**Keywords**
Identafi®; Oral lesion; Precancerous; Early diagnosis; Tobacco; Alcohol.

## INTRODUCTION

Oral cancers; It is a type of cancer that has been diagnosed with lesions in areas such as the floor of the mouth (under the tongue), lips, gums, tongue, inner faces of cheeks, palate.[1-3] Its Mortality rate has increased significantly in recent years.[4,5]

Identafi® is an feasible, ancillary, veiling equipment aspecting three distinct flashes that are practiced subsequently to explore oral ornaments. In addition to a flash transmitting diode (light-emitting diode (LED)) white flash, the equipment also contains violet flash of 405 nm wavelength and a 545 nm wavelength green-amber flash. The violet and green-amber flashes activate ornament fluorescence and reflectance spectroscopy variously.

Looking at the early diagnosis statistics of oral cancer, it is seen that it creates serious differences in terms of survival.[6] Although there is a great responsibility for doctors in early diagnosis, some problems that vary from patient to patient can make early diagnosis difficult.[7] Based on these problems, we conducted this study, which examined the role of the Identafi® device in early diagnosis, on cases we observed suspicious on cases in Eskişehir and encountered remarkable results.

### Purpose

The aim of this study is to provide early diagnosis of precancerous oral lesions in the mouth and to determine how it will affect the prognosis in early diagnosis by testing the Identafi® device that will help the physician for this purpose.

## MATERIALS AND METHODS

The present study included the patients whom applied to Otorhinolaryngology Department of Yunus Emre Goverment Hospital and City Hospital of Eskişehir between 2011-2019. An initial oral screening was done by otorhinolaryngologists and dentists. The suspected cases were subjected to Identafi® Oral cancers sreening device.

This device is designed for light; it uses the energy it broadcasts at different wavelengths by combining it with different reflection feature between malignant and bening tissue. The device, by its design, has many features that will make it easier to scan the restrictive oral area. Thus, the findings required for early diagnosis can be easily detected even in hard-to-reach areas.

## RESULTS

The identification device has been tested in cases of suspected suspicion and numerical data have been obtained that can be classified according to cigarette, alcohol, spicy food use, age and gender, oral location (Tables 1, 2, 3, 4, 5 and 6).

**Table 1.** *Distribution of Study Subjects by Gender*

| Gender | n (%) |
|---|---|
| Male | 284 (47.3) |
| Female | 317 (52.7) |
| Total | 601 (100) |

**Table 2.** *Distribution of Subjects Based on Consumption of Smoke*

| Status | n (%) |
|---|---|
| Smoker | 48 (8) |
| Non-smoker | 553 (92) |
| Total | 601 (100) |

**Table 3.** *Distribution of Subjects Based on Consumption of Alcohol*

| Status | n (%) |
|---|---|
| User | 284 (47.3) |
| Non-user | 317 (52.7) |
| Total | 601 (100) |

**Table 4.** *Distribution of Study Subjects by Gender*

| Lesion Type | n (%) |
|---|---|
| Leukoplakia | 149 (24.8) |
| Erythroplakia | 8 (1.3) |
| Lichen planus | 217 (36.1) |
| Fibrosis | 165 (27.5) |
| Keratosis | 209 (34.8) |
| Total | 601 (100) |

**Table 5.** *Distribution of Study Subjects Based on the Site of the Lesions*

| Site | n (%) |
|---|---|
| Palate | 2 (0.4) |
| Floor of mouth | 1 (0.2) |
| Tongue | 25 (4.2) |
| Buccal mucosa | 573 (95.2) |
| Total | 601 (100) |

**Table 6.** *Distribution of Study Subjects Based on the Site of the Lesions*

| | Lesion | Without Lesion | *p* | Odds Ratio |
|---|---|---|---|---|
| Tobacco user | 45 | 3 | 0.001 | 14.310 |
| Tobacco nonuser | 7 | 546 | | |
| Alcohol user | 23 | 4 | 0.001 | 9.612 |
| Alcohol nonuser | 2 | 572 | | |

## CONCLUSION

The conclusion of this study; it has been observed that the indentative device provides convenience to the physician in the early diagnosis of precancerous oral lesions and some tissue formations that may be overlooked can be reached.[8,9]

There liability of the device would depend upon further studies which can reveal its specificity and sensitivity.[8,9] The effectiveness of this devise when proved and reduction of the cost of the device would make it a popular and common screening tool among dentists and dental schools in the detection of oral cancer in the community. Studies have shown a strong relationship between the use of tobacco and alcohol in the development of precancerous lesions.[6-9] This study also presents that tobacco was a capable prognosticator for improvement of precancerous lesions.

The gains of the Identafi® equipment is it is modest, firm extent deuced with a twisted diagnosis reflector which grants customers to obviously observe tough-to-grasp fields, such as beneath the tongue, and behind of the pharynx.

The government authorities should provide training to rural health workers to enable them to screen patients for oral precancerous lesions and refer them for biopsy and further management at higher centres. The health authorities should provide regular health education on the hazards of tobacco use to school children thereby deterring them from adopting the habit of tobacco use.

## CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

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