

ORIGINAL ARTICLE

Attitude toward Oral Biopsy among General Dental Practitioners in Bhopal, Madhya Pradesh

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ABSTRACT

Aim: The aim of this study was to investigate the theoretical and practical skill levels of the general dental practitioners (GDPs) toward oral biopsy and to compare these results with other developed countries.

Materials and Methods: A total of 500 Bhopal GDP were conveniently sampled and included in this cross-sectional study. Participants were asked to complete a self-reported questionnaire that was specially designed to achieve the aims and objectives of this study.

Results: Results demonstrated that a significant difference exists between the perceived theoretical knowledge related to oral biopsy and the clinical practical application of this knowledge among the participant dentists.

Conclusion: A significant difference present between the theoretical information related to oral biopsy and the practical application of this information among the GDP.

Keywords: Oral biopsy, Oral cancers, Oral mucosa, Tumors.

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INTRODUCTION

The dentist will usually form the basis of a successful judgment and diagnosis.^[1] In some cases, to reach accurate diagnosis, certain and reliable tests could be done to

confirm or exclude some diseases. A wide array of procedures and techniques is available to assist in the diagnosis of oral disease.^[2] The clinical and radiographic examinations may provide sufficient information for the diagnosis of certain entities.^[3] However, lesions of the oral cavity, and especially those affecting mucous membranes, may present bizarre clinical and histopathological patterns. This is essentially true because of the salivary environment and the complex organization of the various oral membranes.^[4-6] The correlation of the clinical findings with the histopathological observations is useful, if not fundamental, for diagnosing certain oral lesions. The treatment decisions based on a definitive pathologic diagnosis, the biopsy is the most dependable technique that can establish the accurate diagnosis of a clinical lesion.^[7] The aim of this study was to investigate the theoretical and practical skill levels of the general dental practitioners (GDPs) toward oral biopsy and to compare these results with other developed countries.

MATERIALS AND METHODS

This study was a cross-sectional study, which utilizes a well-structured and modified questionnaire from other similar questionnaires that were developed in other countries. The study questionnaire consisted of two item blocks to meet the requirements and aims of the present study. The first item block addressed professional and geographic aspects including years of professional activity, country of qualification, work setting, and geographic area of work. The second explored attitudes toward oral mucosal lesions through 23 questions which cover multiple-related subjects, which include whether or not the dentist ever diagnoses such lesions, the use of biopsies as a diagnostic method; whether the dentist personally performs such biopsies or refers the patients to other professionals, reasons for not performing biopsy, where the specimen is sent for microscopic diagnosis; and whether the dentist is interested in increasing the knowledge regarding oral biopsy and the estimation by the dentist of the general public knowledge about the oral biopsy and its importance. Questionnaire variables were as follows: Gender, years of professional experience, country of qualification, ability to diagnose oral lesions, methods used to confirm the

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diagnosis of an oral mucosal lesion, knowledge, indications, diagnostic importance and ability to perform an oral biopsy, reasons for not performing an oral biopsy, how many times an oral biopsy was performed, referral to a specialist to perform an oral biopsy, with reasons for doing it or not, whether or not the removed oral lesion is sent for histopathological examination, estimation of the need to perform an oral biopsy to reach a diagnosis or as a follow-up procedure, attendance of courses or lectures related to oral biopsy, preferable methods to improve knowledge about oral biopsy, estimation of the general public knowledge about the oral biopsy and its diagnostic importance, estimation of the need to increase the general public awareness about the oral biopsy and its diagnostic importance. Filter-type questions to filter out respondents lacking sufficient information, and close-ended questions that provide the respondent with several predefined options to respond were mainly used in this questionnaire. Questionnaire reliability was measured by calculating a statistical variable known as Cronbach's alpha, which ranges between 0 and 1, and the measurement tool is considered to be reliable if the value of Cronbach's alpha is higher than 0.60. In this study, if Cronbach's alpha was found to be 0.82, the questionnaire in this study was rated as good and is considered reliable. The data were entered into a Microsoft Office Excel 2007 spreadsheet, version 12 (Microsoft Corporation, USA) in a personal computer. All statistical calculations and data analysis were carried out using the Statistical Package for the Social Sciences (SPSS®) version 13.0 (SPSS Inc., Chicago, USA). Analysis included the use of descriptive statistics (frequencies and tables) and according to the analytical data needed; multiple tests were used (Chi-square test, ANOVA, *t*-test and Scheffe test). Statistical significance was assessed at a level of $P = 0.05$.

RESULTS

The total number of the sample included in the study was 500 GDPs working in the different sectors. To estimate the theoretical skills of the GDPs with regard to oral biopsy, it was shown that 94% of the GDPs had the ability to diagnose oral soft tissue lesions, 96% indicated that they know what is an oral biopsy, 69% they do know the indications to perform an oral biopsy, and 94% appreciated the diagnostic importance of oral biopsy; these findings were statistically significant results ($P < 0.05$). More than 90% of the GDPs had never attended any courses or lectures related to oral biopsy after graduation. When those, whose answer was more than 5 years or never, were asked about the reasons for their replies, 97% indicated that there are no available courses or lectures related to the subject, 2% thought

no need for such courses or lectures, and 1% had no time to attend, which was a statistically significant result in favor for lack of available courses or lectures ($P = 0.000$).

DISCUSSION

The issue of who should perform the oral biopsy remains controversial, studies on whether GDPs should perform oral biopsies, some argue that GDPs should be competent to do the majority of oral lesions but stress that suspicious lesions should be immediately referred.^[7-10] Others encourage GDPs to biopsy suspicious lesions, thus assisting in the early detection of oral cancer, surgeons discourage the GDPs to perform oral biopsy, while other surgeons desire to see the oral lesions intact and not affected by healing scars from a previous biopsy.^[11] GDPs must, therefore, be aware not only of where, when, and how to perform a biopsy, but also of when to refer the patient to a specialist.^[12]

CONCLUSION

The results of this study suggest among the study sample, a significant difference presents between the perceived theoretical knowledge related to oral biopsy and the practical application of this knowledge clinically. Future studies will focus on continuous education and training workshops on oral biopsy, and its importance should be provided to the GDPs by the various dental organizations.

REFERENCES

1. Kowalski LP, Franco EL, Torloni H, Fava AS, de Andrade Sobrinho J, Ramos G, *et al.* Lateness of diagnosis of oral and oropharyngeal carcinoma: Factors related to the tumour, the patient and health professionals. *Eur J Cancer B Oral Oncol* 1994;30B:167-73.
2. Napier SS, Cowan CG, Gregg TA, Stevenson M, Lamey PJ, Toner PG, *et al.* Potentially malignant oral lesions in Northern Ireland: Size (extent) matters. *Oral Dis* 2003;9:129-37.
3. Scott SE, Grunfeld EA, McGurk M. Patient's delay in oral cancer: A systematic review. *Community Dent Oral Epidemiol* 2006;34:337-43.
4. Kalmar JR. Advances in the detection and diagnosis of oral precancerous and cancerous lesions. *Oral Maxillofac Surg Clin North Am* 2006;18:465-82.
5. Lingen MW, Kalmar JR, Karrison T, Speight PM. Critical evaluation of diagnostic aids for the detection of oral cancer. *Oral Oncol* 2008;44:10-22.
6. Studdert DM, Mello MM, Gawande AA, Gandhi TK, Kachalia A, Yoon C, *et al.* Claims, errors, and compensation payments in medical malpractice litigation. *N Engl J Med* 2006;354:2024-33.
7. Woolgar JA, Beirne JC, Vaughan ED, Lewis-Jones HG, Scott J, Brown JS. Correlation of histopathologic findings

- with clinical and radiologic assessments of cervical lymph-node metastases in oral cancer. *Int J Oral Maxillofac Surg* 1995;24:30-7.
8. López Jornet P, Velandrino Nicolás A, Martínez Beneyto Y, Fernández Soria M. Attitude towards oral biopsy among general dentists in Murcia. *Med Oral Patol Oral Cir Bucal* 2007;12:E116-21.
 9. Downer MC, Moles DR, Palmer S, Speight PM. A systematic review of measures of effectiveness in screening for oral cancer and precancer. *Oral Oncol* 2006;42:551-60.
 10. Czerninski T, Nadler C, Kaplan I, Regev E, Maly A. Comparison of Clinical and Histologic Diagnosis in Lesions of Oral Mucosa. Essay Presented at: San Antonio, Texas: Annual Meeting of the American Academy of Oral and Maxillofacial Pathology; 2006.
 11. Fischer DJ, Epstein JB, Morton TH, Schwartz SM. Interobserver reliability in the histopathologic diagnosis of oral pre-malignant and malignant lesions. *J Oral Pathol Med* 2004;33:65-70.
 12. American Association of Oral and Maxillofacial Surgeons. Parameters and Pathways: Clinical Practice Guidelines for Oral and maxillofacial Surgery; Diagnosis and Management of Pathologic Conditions. Chicago: American Association of Oral and Maxillofacial Surgeons; 2001.