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RESEARCH ARTICLE

EVALUATION OF CLINICAL AWARENESS IN UNDERGRADUATE AND POSTGRADUATE DENTAL STUDENTS BY PERSUING THEIR OPINIONS ON COMMON ORAL MUCOSAL LESIONS THROUGH QUESTIONNAIRE

[1,*]Gadadasu Swathi, [2]Tatapudi Ramesh, [3]Roja Reddy, [4]ThumulaReshmi, [5]Madamalasuvarna and [6]Sureshsanikommu

[1]Post graduate student, Department of Oral Medicine and Radiology, Vishnu Dental College
[2]Professor, Department of Oral Medicine and Radiology, Vishnu Dental College
[3,4,5]Post graduate student, Department of Oral Medicine and Radiology, Vishnu Dental College
[6]Head, Department of community dentistry, Vishnu Dental College

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ABSTRACT

Early detection of Oral mucosal lesions plays a vital role in diagnosing and prevention of many dreadful diseases. Photographs taken with high quality cameras serve good purpose of exposure and helps in explanation of rarely encountered mucosal lesions. These photographs can also be used to assess knowledge of students regarding awareness of mucosal lesions. The aim of this study is to evaluate awareness of common oral mucosal lesions in undergraduate, postgraduate students using images. **Materials and methodology:** A total sample of 200 dental students who are 100 Undergraduate students 100 Postgraduate students were taken. They were supplied with blank answer sheets and a total of 25 slides with clinical pictures with brief history. Each question was projected one by one and students were asked to write their opinions. All the questions were categorized into basic, medium and difficult based on frequency of occurrence. **Results:** The highest mean score was obtained by post graduates in basic and medium levels and undergraduates had scored in difficult level. On intra group comparison, oral and maxillofacial surgery had scored highest in basic level and oral medicine students had scored highest in rest of categories. **Conclusion:** Knowledge of oral mucosal lesions was not at satisfied level both in undergraduate and post graduation levels. More emphasis has to be kept on differentiation and diagnosis of different mucosal lesions to ensure higher levels of knowledge in students.

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INTRODUCTION

Visual examination is the prime diagnostic clinical step in dentistry and oral medicine. Thorough clinical examination of any mucosal lesion can provide clear idea about type of lesion. Photography in field of medicine helps in identification and recording of oral mucosal lesions. Photographs taken with high quality cameras serve as good purpose for recording and making rare lesions accessible for all students in the process of learning. Many systemic diseases make their firstclinincal presentation in oral cavity implies significance for careful examination of entire oral mucosa.

Corresponding author: **Gadadasu Swathi**
Post graduate student, Department of Oral Medicine and Radiology, Vishnu dental college
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Normal variants of oral mucosa cannot be mis-interpretated as pathology for which oral physicians have to be capable of that differentiation. On a whole, emphasis has to be ascertained on oral mucosal lesions as they can act as a mirror to systemic health of individual. Such emphasis has to be inculcated into students from undergraduate level and has to be enhanced at post graduate level. Undergraduates has to be emphasized on importance of mucosal lesions and identification of systemic disease from oral cavity. Post graduates of all specialities have to elucidate their knowledge of mucosal lesions and improve their basic knowledge from under graduation level. However, despite to this content, oral medicine post graduates will be dealing with oral mucosal lesions on daily basis, post graduates of other specialities do not have that much exposure this study is performed to be evaluate dental students and their knowledge in mucosal lesions. Torres-Pereira *et al*. found that when two practitioners evaluated photographs of oral mucosal diseases, they only gave the correct diagnosis from a clinical

image in 60% of the cases (Torres-Pereira, 2008). Scully noted that the clinical evaluation of potentially malignant disorders is difficult and emphasizes the importance of clinical experience for accurate diagnosis (Scully, 2008). Moreover, despite the consent regarding the significance of identification of oral mucosal lesions, the literature does not provide any information on studies evaluating and comparing knowledge of dental undergraduate and post graduate students on oral mucosal lesions. With this context, this study was planned with an aim to evaluate knowledge of oral mucosal lesions of dental undergraduate and post graduate students using their opinions on photographs of various commonly encountered lesions which are being projected on to the screen. The objectives of this study are to assess the knowledge, attitude and perception of oral mucosal lesions in undergraduate and postgraduate students.

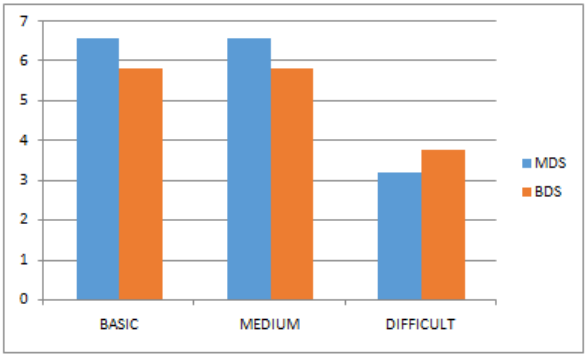
Participants: A total of two hundred students had taken part in this study out of which hundred undergraduates and post graduate students of different specialities. A total of twenty oral medicine students, twelve oral pathology students, six oral surgery students, sixteen peridontology students, ten pedodontology students, thirteen prosthodontics students, twelve endodontics students, eleven orthodontics students were involved in this study.

Image presentation and questionnaire: A powerpoint presentation was prepared with a clinical pictures of common mucosal lesions combined with brief history. All clinincal pictures were taken using high quality digital single lens reflex camera (DSLR). A total of twenty five questions were prepared. Students were assembled and had been given answer sheets which contain questions numbers. Then powerpoint presentations were displayed onto screen and students were asked to give diagnosis based on brief history and associated clinical picture provided onto screen. Answer sheets were collected and assessed. All correct answers were calculated .Questions were classified into basic knowledge, medium knowledge and high knowledge based on difficulty levels and frequency of occurrence of different mucosal lesions.

Statistical analysis: All correct answers were calculated and results were assessed using unpaired t test for intergroup comparison and ANOVA for intra group comparison.

RESULTS

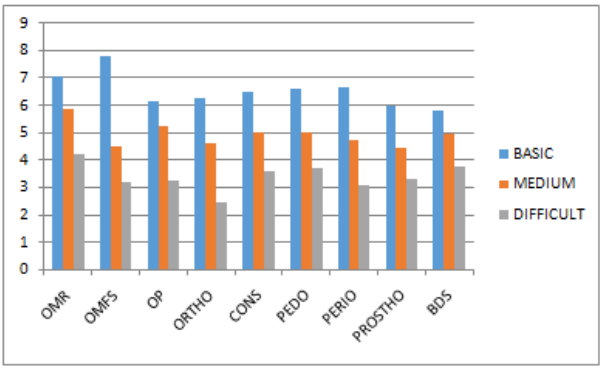
On inter group comparison mean of undergraduate students in different levels are 5.8, 5.8,3.7 respectively. Postgradaute students mean values are 6.6,6.6 and 3.2. respectively Undergraduate students knowledge when compared in basic and medium levels is slightly lower to post grauduate students. Undergraduate students exhibited higher performance in difficult stage when compared to all r post graduates. Basic and difficult stages showed statistical significance in unpaired t test (Table 1). On intra group comparison, by comparing different specialities and undergraduate students, varied results were obtained. In basic knowledge criteria, highest mean was obtained by oral and maxillofacial surgery followed by Oral Medicine, Periodontics, Pedodontics, Conservative And Endodontics, Orthodontics and Prosthodontics. In medium knowledge criteria highest mean was obtained by Oral medicine, followed by Oral Pathology, Conservative And Endodontic Dentistry, Periodontics, Orthodontics, Oral And Maxillofacial Surgery and Prosthodontics.



Graph 1. Values of means comparing undergraduate and post gradute students

Table 1. Unpaired t test significane in intergroup comparison

	UG/PG	Mean	P (Unpaired t test)
Basic	MDS	6.60	0.003
	BDS	5.82	
Medium	MDS	6.60	0.569
	BDS	5.82	
High	MDS	3.21	0.002
	BDS	3.78	



Graph 2. Intra group comparison of different specialisations in three stages of questions

In difficult level criteria, Oral Medicine had secured highest mark followed by Pedodontics, Conservative and Endodontics, Prosthodontics, Oral And Maxillofacial Surgery, Periodontics and Orthodontics. On all over there were mixed performances, between undergraduate and different groups of post graduate students. Department of oral medicine had given better performance than all other specialities.

DISCUSSION

Dental undergraduate program in India is about 5 years in which students will be taught about different oral lesions in their fourth year. The examination will be conducted by assay questions at the end of fourth year and after which students will enter their internship for 1 year in which they may or may not encounter these mucosal lesions. Knowledge of mucosal lesions is very important despite of under/post graduation of any department. Many of systemic diseases have their presentation in oral cavity prior to their systemic involvement like kopliks spots in case of measles. Highly infectious and occult diseases like syphilis and AIDS can be easily suspected and identified by careful examination of oral cavity (Burket *et al*., 2008). The systemic conditions that can cause oral ulceration include infection (e.g. syphilis (Jones *et al*., 2012), tuberculosis (Chauhan *et al*., 2012), HIV/ AIDS (Umoru *et al*.,

2012), viral infection including herpangina and primary herpetic stomatitis including herpes simplex virus causality (HSV-1 or 2) (Westley, 2011) candida and other fungal organisms (e.g. mucormycosis or histoplasmosis (Terai *et al*., 2012), autoimmune disease (e.g. lupus, pemphigus and paraneoplastic pemphigus, lichen planus, inflammatory bowel disease, thyroid disease, malignancy/ haematologic disease, cyclic neutropenia, allergy and other drug reactions,and vascular inflammatory disease (Mays *et al*., 2012). Sound knowledge of these lesions is necessary for any dental professional for early diagnosis and preventive care has to be taken to prevent iatrogenic and nasocomial infections.

In this present study, the mean scores for diagnostic capability of basic and medium level knowledge was best performed by postgraduate students. The undergraduates had scored higher score in difficult level criteria than post graduates. This can be explained as they were well versed with subject and are in more contact with subject than post graduates. Post graduation limits student to be specialised in particular speciality only neglecting other aspects of dentistry. In post graduates group, oral medicine group had given better performance in all categories. Oral and maxillofacial surgery had scored highest in basic knowledge criteria and Oral Medicine group had topped medium and difficult level criteria. The results of present study were in accordance with study conducted by Yehuda *et al*. They conducted a study to evaluate efficacy of different dental specialities to identify prognosis of different lesions in consecutive appointments in which oral medicine specialists performed well than other dental specialities (Yehuda Zadik, 2012). M Shoorabhi *et al* performed a study to evaluate clinical skills in evaluation of mucosal lesions in medical interns. The mean score of diagnostic skills ranged from 3.83-3.97 (Shooryabi, 2013). Ali M *et al*l performed a study in dental college to identify the efficacy of dental intern students in which they were more competent in detecting carious lesions than in detecting mucosal lesions which was rechecked by faculty members in which only 47.5% students detected correctly (Ali *et al*., 2015).

Arnout *et al*. conducted a study for 70 undergraduate dental students regarding awareness of oral cancer, stated unsatisfactory levels of knowledge among students. Dental students have to be emphasized more for proper examining oral cavity (Arnout, 2016). Ina study conducted by Bhagavathula A et, a high majority of these students claimed that they failed to screen the highriskpatient groups, which implies the gaps in their knowledge regarding oralcancer risk factors and students who regularly examined the oral mucosa performed better in identifying lesion than those who don't (Bhagavathula *et al*., 2015). Our study is the first of its kind including both undergraduates and post graduates dental students . The merits of our study is including considerable number of students belonging to all dental specialities and comparing results with undergraduate level in which undergraduate scored higher than their counterparts. This can be explained as they expose to these lesions in higher frequency compared to other dental specialities. The demerits of our study were unequal sample in different dental specialities and small sample size. Such studies when performed in higher sample can yield accurate results than pertaining to geological area. Despite importance is given in knowledge of oral mucosal lesions in medical field, students still finding difficult to identify or diagnose a lesion.

Conclusion

Awareness of mucosal lesions is not at a satisfied level in dental students which may be due to lack of sufficient clinical exposure to such mucosal lesions in undergraduate level. Even in post graduation these mucosal lesions has to be emphasized. Undergraduate dental students has to be trained to differentiate between normal and abnormal conditions of oral cavity, postgraduates have to be emphasized on differentiating different abnormal conditions of oral mucosa. Today's students are tomorrow's dental practitioners. They have to be trained not only to save the lives, but also on early diagnosis that can prevent morbidity of patient., failure of which can sometimes deteriorate quality of life of patient.

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