



AWARENESS AMONGST UNDERGRADUATE STUDENTS & INTERNS ABOUT THE INVESTIGATIONS DONE IN ORAL PATHOLOGY DEPARTMENT – A ONLINE SURVEY

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ABSTRACT Chair side investigation are simple, require inexpensive equipment and rapidly doing procedures. They do not required specialized training. It is carried out conveniently in a clinic or dental set up. Undergraduate students should be aware of the investigations, which may be required to established diagnosis of various dental, medical and surgical problems and of the principles of treatment including drug prescriptions. The aim of this survey was to asses the knowledge and awareness of dental UG students & Interns about investigative procedures done in Oral Pathology Department.

KEYWORDS : Chair side investigation, lab procedures, awareness, dental students, knowledge, screening.

INTRODUCTION

Investigations of the patient includes chair side investigations, radiographic investigations and laboratory investigations. Investigation are extension of physical examination in which tissue, blood and other specimens obtained from patients are subjected to microscopic and microbiological examinations. The routine laboratory investigations are helpful in bringing awareness to the patient regarding the disease suffering from. Laboratory examinations are important and at times indispensable part of diagnostic process. Chair side investigations can be carried out conveniently in a clinic or dental set up.¹ They require only simple & relatively inexpensive equipment & can usually be performed with an acceptable degree of accuracy with put extensive specialized training The results of most of this investigations can be known almost immediately which may facilitate in quick & efficient management of the patients Minimally invasive interventions are critical to improving healthcare efficiency, enhancing the quality of care provided & reducing cost.

Data from these investigations provide information that help us to make early and definitive diagnosis which in turn leads to better therapeutic results. Laboratory examinations are important and at times indispensable part of diagnostic process². Chair side investigations can be carried out conveniently in a clinic or dental set up. They require only simple & relatively inexpensive equipment & can usually be performed with an acceptable degree of accuracy with put extensive specialized training¹. The results of most of this investigations can be known almost immediately which may facilitate in quick & efficient management of the patients³. Minimally invasive interventions are critical to improving healthcare efficiency, enhancing the quality of care provided & reducing cost⁶. Data from these investigations provide information that help us to make early and definitive diagnosis which in turn leads to better therapeutic results³.

AIM & OBJECTIVES

To asses the awareness amongst undergraduate dental students & interns about the investigations done in Oral Pathology Department.

MATERIALS & METHOD

The present study was conducted with the approval from Institutional Ethics Committee. This online based cross sectional questionnaire study was conducted between August and September 2023. A Pre-structured validated questionnaire consisting of 12 closed ended questions were prepared using Google forms and circulated amongst Undergraduate students and interns. The responses were tabulated for statistical analysis.

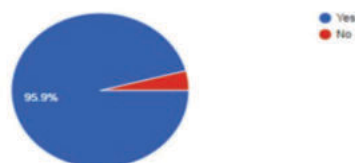
RESULTS

The present survey analysed that more then 75% students were aware

about the routine procedures, however only 35-40 % were aware about the advanced techniques.the results are interpreted as below.

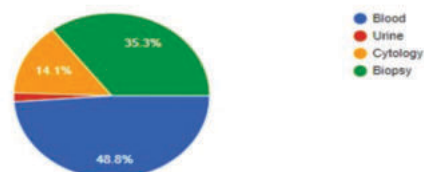
1. Are you aware about the pathological investigations done in oral pathology department?

170 responses



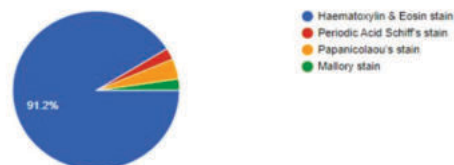
2. Which are the basic investigations?

170 responses



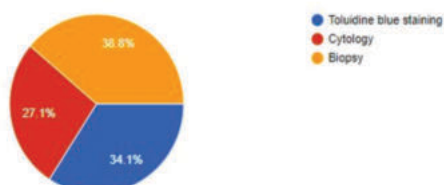
3. Which is the most common stain used in histopathology laboratory?

170 responses



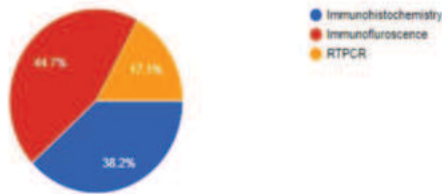
4. Which is the most common chair side diagnostic procedures?

170 responses



12. Advanced techniques done in oral pathology?

170 responses



Frequencies & Percentages

• Are you aware about the pathological investigations done?

	Frequency	Percent
No	7	4.1
Yes	163	95.9
Total	170	100.0

• Which are the basic investigations?

Investigations	Frequency	Percent
Biopsy	60	35.3
Blood	83	48.8
Cytology	24	14.1
Urine	3	1.8
Total	170	100.0

• Advanced techniques done in oral pathology ?

	Frequency	Percent
Immunofluorescence	76	44.7
Immunohistochemistry	65	38.2
RTPCR	29	17.1
Total	170	100.0

DISCUSSION

Undergraduate students and interns should have knowledge of routine investigative procedures in oral pathology department. This will help in early screening and timely referral and this can initiate effective management which can prevent aggressive outcomes and further lead to better prognosis^(1,7). This is possible only when the undergraduates and Interns are well aware of the Clinico-pathology of the lesions and investigative procedures^(1,8). There are few studies which reported the lack of accuracy of diagnosis, when the diagnosis is only based on clinical features^(1,9,10).

The present survey analysed that more than 75% students were aware about the routine procedures, however only 35-40 % were aware about the advanced techniques. Now a days, dental students are attending workshops, conferences and seminars regularly compared to the previous decade, this could be the reasons behind the improved awareness.

Even though the majority of the students were aware of the routine lab procedures, a significant proportion of them were not sure of the advanced techniques. This points to the lack of in- depth practical knowledge of the procedures. The usefulness of these routine techniques like cost effectiveness, easiness of use in emergency & compromised cases has to be highlighted among the undergraduate students.

Hence more futuristic studies are needed which may have an impact on early stage diagnosis and which can aid in better prognosis.

CONCLUSION

The present study results suggest that majority of the students were aware of the various basic investigative procedures however many students were not aware about the advanced techniques done in the Oral Pathology Department. This gap in knowledge can be brought down by expanding BDS curriculum by incorporating hands on training. Seminars should be conducted at Institutional level regarding the routine and newer techniques¹. Investigations help in the diagnosis of various disease states & thus serve in the treatment of the disease.

One should have the basic knowledge of these various investigations. These investigations give us options to narrow down to a particular diagnosis & exclude out the differential diagnosis². Hence a detail knowledge and awareness of various investigations are necessary for

appropriate diagnosis and treatment and hence leading to the welfare of the patient³.

Online survey- Questionnaire

Tick as may correct answers possible :

- Are you aware about the pathological investigations done in oral pathology department? Yes/No
- Which investigations are basic?
 - Blood
 - Urine
 - Cytology
 - Biopsy
- Which is the most common stain used in histopathology laboratory?
 - Haematoxylin & Eosin stain
 - Periodic Acid Schiff's stain
 - Papanicolaou's stain
 - Mallory stain
- Which is the most common chair side diagnostic procedures?
 - Toluidine blue staining
 - Cytology
 - Biopsy
- Which are the most routine blood investigations
 - Haemoglobin estimation
 - Bleeding & Clotting Time
 - Complete Haemogram
 - Blood sugar
- Which are the other routine investigations done in the department?
 - Urine analysis
 - Histopathology
 - Cytology
 - Blood sugar
- Which is the most common solution used as a fixative?
 - Formalin 10%
 - Gluteraldehyde
 - Absolute alcohol
 - Saline
- Which is the most common solution used for decalcification?
 - 5% nitric acid
 - Sulphuric acid
 - Acetic acid
 - None of the above
- What are the common methods used for studying teeth?
 - Decalcified sections
 - Ground sections
 - Haematoxylin & Eosin stained sections
- Which are the most common biopsy procedures?
 - Incisional biopsy
 - Punch biopsy
 - Excisional biopsy
 - Laser
- Types of microscopes used in oral pathology department
 - Light microscope
 - Fluorescent microscope
 - Stereo microscope
 - Dark field microscope
 - Phase contrast
 - Polarising microscope
- Advanced techniques done in oral pathology
 - Immunohistochemistry
 - Immunofluorescence
 - RTPCR

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