Original Article

Awareness about oral pathology specialty among medical professionals in hospitals under Kerala Health Services Department in Malappuram district in Kerala, India

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Abstract

Background and Aim: There is a paucity of information about awareness about oral pathology speciality among medical professionals. To the best of my knowledge, this is the first study to be reported in literature. This study aimed to assess and create awareness of oral pathology specialty among medical professionals in hospitals under Kerala Health Services Department in Malappuram district in Kerala. **Materials and Methods:** The study was conducted between January 2018 and April 2018. The printed and validated questionnaire regarding oral pathology specialty was supplied to medical professionals in hospitals under Kerala Health Service Department in Malappuram district. The questionnaire comprised of the demographic data of the participants, including age, gender, position, and years of experience, and basic facts about oral pathology speciality. **Results:** Most participants surveyed (91.7%) were aware of the oral pathology specialty. In total, 77.8% of medical professionals refer oral pathology cases to general pathologists for histopathology report. However, 41.7% of medical professionals know about the new terminology potentially malignant oral disorders and their histopathological interpretation. Approximately, 33.33% of medical doctors were aware about common oral cancer (squamous cell carcinoma) grading. **Conclusion:** Medical professionals are aware of oral pathology specialty. The stance of referring and consulting oral pathologists for oral pathology cases for histopathology report is poor.

Keywords: Awareness, India, Kerala health service department, medical professionals, oral pathology specialty

Introduction

Oral pathology is the branch of dental science dealing with pathology affecting the oral and maxillofacial regions.[1] The information about the current scenario of oral pathology specialty and its future perspective is evident in the literature.[2-4] Oral pathology forms a crucial link between basic dental sciences and clinical dental sciences.[5,6] More recently, dental traits of congenital syphilis, bilaterally impacted maxillary and mandibular impacted canines, Stensen's duct sialolith, and eruption cyst associated with right maxillary deciduous first molar were reported from our dental department referred by medical professionals in our institution.[7-10] It was known from my medical collegues working in hospitals under Kerala Health Services that they are dealing with oral pathology cases and are referring to general pathologists in private sector for histopathology report. There is a paucity of information about awareness about oral pathology speciality among medical professionals in India. This printed and validated questionnaire study aimed to assess and create awareness of oral pathology specialty among medical professionals in hospitals under Kerala Health Service Department in Malappuram district. To the best of my knowledge, this is the first study to be reported in literature around the globe.

Materials and Methods

The printed and validated questionnaire regarding oral pathology speciality was supplied to medical professionals in Kerala Health

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Service Department in Malappuram district. The questionnaire comprised of the demographic data of the participants, including age, gender, position, and years of experience, and basic facts about oral pathology speciality [Figure 1]. The study was conducted between January 2018 and April 2018. All incomplete answered questionnaires were excluded from the study. The questionnaire was supplied to 100 medical professionals, but completely filled questionnaire was received from 36 medical professionals. The study was approved by the ethics committee of Government Taluk Head Quarters Hospital, Malappuram, India (THQHMPM Reference 1/Dental/2018). This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Participants in the study

Designation wise, the participants were grouped into general cadre (Assistant Surgeon/Casualty Medical Officer and Civil Surgeon) and speciality cadre (Junior Consultant and Consultant). Assistant Surgeon/Casualty Medical Officer constitutes medical undergraduates with basic Bachelor of Medicine and Bachelor of Surgery (MBBS) degree working in entry cadre. Civil Surgeon is the promotion post of Assistant Surgeon/Casualty Medical Officer. Junior Consultant constitutes medical professionals with postgraduate degree or diploma working in entry cadre. Consultant is the promotion post of Junior Consultant.

Speciality wise, the participants were grouped into medical undergraduates with basic MBBS degree working as Assistant Surgeon/Casualty Medical Officer and Civil Surgeon and medical professionals with postgraduate degree or diploma working as Junior Consultant and Consultant.

Inclusion criteria

Medical professionals working in general cadre (Assistant Surgeon/Casualty Medical Officer, Civil Surgeon) and speciality cadre (Junior Consultant, Consultant).

Exclusion criteria

Medical professionals working in administrative cadre (District Medical Officer of Health, Deputy District Medical Officer, Superintendent, Deputy Superintendent, and Resident Medical Officer).

The data were analyzed using descriptive statistics.

Results

The demographic data of the participants and participant's response to basic questions to oral pathology are summarized in Table 1.

Discussion

This study was conducted among medical professionals working in Government hospitals in Malappuram district, Kerala to assess

Proforma

Title: Awareness about oral pathology specialty among medical professionals in Hospitals under Kerala Health Services Department in Malappuram district in Kerala, India

1. Name:
2. Age:
3. Sex:
4. Qualification and speciality:
5. Designation: Assistant Surgeon /Casualty Medical Officer / Civil Surgeon/Junior Consultant / Consultant
6. Location:
7. Years of practice:
8. Have you ever heard about oral pathology speciality Yes/No
9. Whom do you refer for histopathological report in pathology in oral cavity
a) General Pathologist b) Oral Pathologist
10.Do you know the new terminology Potentially malignant oral disorders and their histopathological appearance Yes/No
11. Do you know the histopathological grading of common oral cancer (oral squamous cell carcinoma) Yes/No
12. Do you know the significance of cytology in the diagnosis of oral lesions Yes/no
13. Do you know the significance of Immunohistochemistry in the diagnosis of oral lesions Yes/no
14. Do you know the significance of Immunofluorescence in the diagnosis of Oral Lesions Yes/No
15.Do you know the significance of special stains in the diagnosis of oral lesions Yes/No

Figure 1: Proforma

and create awareness about oral pathology speciality. Age wise, majority of responses received from 31–40 age group (55.5%) and 41–50 age group (25%). Sex wise, majority of responses received from males (58.3%) compared to females (41.7%).

Designation wise, majority of responses were received from Junior Consultant (58.3%) and Assistant Surgeon/Casualty Medical Officer (25%). Specialty wise, majority of responses were received from medical undergraduate (19.4%), general medicine (13.9%), pediatrics (11.1%), and general surgery (11.1%).

Most medical professionals surveyed (91.7%) were aware of the oral pathology specialty. Approximately, 77.8% of medical professionals refer oral pathology cases to general pathologists for histopathology report. However, 41.7% of medical doctors know about the new terminology potentially malignant oral disorders and their histopathological interpretation as detailed in literature.[11,12] Moreover, 33.33% of medical doctors were aware about common oral cancer (squamous cell carcinoma) grading as given in literature.[13,14] Regarding the awareness of various histopathological diagnostic measures in oral lesions, the medical professionals showed maximum responses to cytology (77.8%) and immunohistochemistry (72.2%). Cytology is usually employed in oral potentially malignant lesions, oral cancer, and lymphoproliferative lesions of oral cavity.[15-18] Immunohistochemistry is routinely used for oral cancers, odontogenic tumors, and spindle cell neoplasms.[19-21] The role

Table 1: The demographic data of the participants and participants response to basic questions to oral pathology

A. Demographic data (number, percentage)
Age wise response
21-30 age group- 4 (11.1%)
31-40 age group- 20 (55.5%)
41-50 age group- 9 (25%)
51-60 age group- 3 (8.3%)
Sex wise response
Male-21 (58.3%)
Female-15 (41.7%)
Designation wise response
Assistant Surgeon/Casualty Medical Officer-9 (25%)
Civil Surgeon-2 (5.5%)
Junior Consultant-21 (58.3%)
Consultant-4 (11.1%)
Speciality wise response
Medical undergraduate-7 (19.4%)
General medicine-5 (13.9%)
Pediatrics-4 (11.1%)
General surgery-4 (11.1%)
Gynaecology-3 (8.3%)
Orthopedics-3 (8.3%)
Otorhinolaryngology-3 (8.3%)
Dermatology-2 (5.5%)
Ophthalmology-2 (5.5%)
Pulmonology-1 (2.8%)
Anesthesia-1 (2.8%)
Microbiology-1 (2.8%)
Years of practice
1-5 years-14 (38.9%)
6-10 years-8 (22.2%)
11-15 years-6 (16.7%)
16-20 years-3 (8.3%)
21-30 years-5 (13.9%)
B. Participants response to basic questions to oral pathology
Heard about oral pathology
Yes-33 (91.7%)
No-3 (8.3%)
Reference of histopathology report of pathology in oral cavity
General pathologist-28 (77.8%)
Oral pathologist-8 (22.2%)
New terminology potentially malignant oral disorders and histopathological appearance
Yes-15 (41.7%)
No-21 (58.3%)
Aware about histopathological grading of common oral cancer (squamous cell carcinoma)
Yes-12 (33.3%)
No-24 (66.7%)
Aware of cytology in oral lesions
Yes-28 (77.8%)
No-8 (22.2%)
Aware of immunohistochemistry in oral lesions
Yes-26 (72.2%)
No-10 (27.8%)
Aware of immunofluorescence in oral lesions
Yes-19 (52.8%)
No-17 (47.2%)
Aware of special stains in oral lesions
Yes-19 (52.8%)
No-17 (47.2%)

Contd...

Table 1: Contd...

of immunofluorescence and special stains in the diagnosis of oral lesions is highly appreciated in the literature.[22,23]

More recently, National Accreditation Board for Testing and Calibration Laboratories (NABL) has come up with amendment for oral pathologists to practice histopathology and cytopathology of oral and maxillofacial region and hematology in India.[24] With the above amendment of NABL, the oral pathology services may be instituted in dental department under hospitals in public and private sector that will promote more job opportunities for the graduating oral pathologists in India.

The following strategies should be implemented in Government or private sector to promote oral pathology specialty:

a. Clinicopathologic club or workshops regarding oral cancer grading, immunofluorescence, and special staining techniques in oral lesions should be instituted
b. The stance of referring and consulting oral pathologists for oral pathology cases for histopathology report should be improvised
c. The use of dental informatics as a major tool in teaching about the specialty oral pathology may be introduced[25]
d. The oral pathology services for histopathology reporting should be instituted in dental department under hospitals under Kerala Health Services Department, so that referral from medical professionals regarding oral and maxillofacial pathologies will be improvised and it will be beneficial for the patients attending tertiary care. It will enhance the strengthening of dental units in public health sector and also improvising the revenue of public health sector. There is also a provision for posting of postgraduate students of oral pathology specialty from public and private sector as peripheral center posting in dental department with oral pathology services for histopathology reporting in Kerala Health Services Department
e. It is important that after implementing oral pathology services for histopathology services under dental department under District Head Quarters Hospital, the primary health care providers, family physicians, and medical professionals under various postgraduate disciplines of medicine working in Primary Health Center and Community Health Center can refer oral pathology cases pertaining to oral cavity for biopsy and histopathology report. It may be anticipated that oral pathology services for histopathology services under dental department may be initiated in 14 district head quarters hospitals in Kerala, and it will be beneficial for the patients attending tertiary care.

The limitations of the present study include smaller sample size, and the participants are selected only from government sector.

After implementing the above strategies in Government sector to promote oral pathology as detailed above, the study with larger sample size will be carried out through out the State.

Conclusion

This paper may be considered as a baseline study regarding awareness about oral pathology speciality among Government medical professionals in Malappuram district in Kerala. Although medical professionals are aware of oral pathology speciality, their stance of referring and consulting oral pathologists for oral pathology cases for histopathology report is poor.

Research highlights

- First study on awareness about oral pathology specialty among medical professionals
- Medical professionals are aware of oral pathology specialty
- Approximately, 77.8% of medical professionals refer oral pathology cases to general pathologists for histopathology report
- However, 41.7% of medical professionals know about the new terminology potentially malignant oral disorders
- Moreover, 33.33% of medical doctors were aware about common oral cancer (squamous cell carcinoma) grading
- The stance of referring and consulting oral pathologists for oral pathology cases for histopathology report is poor.

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Conflicts of interest

There are no conflicts of interest.

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