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Research Article

PERCEPTION AND UTILIZATION OF ORAL PATHOLOGISTS IN DIAGNOSING ORAL LESIONS: INSIGHTS FROM GENERAL PATHOLOGISTS

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ABSTRACT

This study aimed to assess the perception of oral pathologists by general pathologists and their role in diagnosing oral lesions within the diagnostic challenges. A survey was conducted among qualified general pathologists, covering topics such as the involvement of oral pathologists in identifying and managing oral lesions. Both inferential and descriptive analyses were performed on the collected data, including comparisons based on work experience regarding referrals of oral tumors and cysts. A significance level of $p < 0.05$ was used for determining statistical significance. A total of 250 pathologists participated in the survey, with 232 indicating awareness of oral pathology. The majority (198) believed that oral pathologists are adept at diagnosing oral, jaw, and salivary gland pathological lesions. However, 137 participants reported avoiding referrals to oral pathologists. Interestingly, each participant expressed willingness to undergo training in oral pathology, highlighting the perceived importance of this specialization. There was a consensus among participants regarding the inclusion of oral pathologists in multidisciplinary teams for handling challenging cases. The findings indicate that general pathologists acknowledge oral pathology as a specialized field and recognize the value of oral pathologists' opinions in diagnosing oral lesions. However, referrals to oral pathologists were not common among most participants. Nonetheless, it is evident that complex cases necessitate the expertise of oral pathologists within histopathology laboratories.

Keywords :- Oral pathology, General pathologists, Diagnostic challenges, Oral lesions, Referral patterns

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INTRODUCTION

Clinical and radiological studies have highlighted the importance of oral and maxillofacial pathology (OMFP), which is recognized as a subspecialty dedicated to diagnosing and treating head and neck disorders by the AOCFP. OMFP integrates medical and dental knowledge to address oral and maxillofacial diseases, with a specific focus on oral pathology. Despite its historical decline in clinical relevance, oral pathology remains crucial in assessing both visible and microscopic disease characteristics, particularly with advancements in molecular-based technologies, immunology, and genetics. Oral pathologists acquire expertise through extensive experience, utilizing microscopes for oral histology. Linking pathological findings to clinical presentations allows for precise facial pathology diagnoses. However, variations in OMFP training and specialization exist among countries, necessitating accurate and updated information from dental or medical authorities. The scarcity of head and neck pathologists has resulted in general histopathologists handling these cases, contributing to misdiagnoses, particularly in malignancies.

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Prompt identification of oral and maxillofacial diagnoses, aided by clinical examination and surgical guidance, underscores the importance of professional assistance. Despite the wealth of evidence supporting this, referral behaviors to oral pathologists among general pathologists remain unchanged, highlighting the ongoing need to recognize oral pathology as a specialized field and utilize oral pathologists in diagnosing oral lesions.

METHODOLOGY

Duration of Study: The survey spanned four months, during which 250 pathologists were sampled using Open-EPI software, resulting in a response rate of 34.5%.

Observational Study:

An observational study with 80% power was conducted to assess awareness of oral pathology as a specialty, utilizing a survey developed by Barret and Speight.

Survey Design and Distribution:

A well-structured questionnaire comprising 13 questions was emailed to general pathologists nationwide.. Online platforms such as LinkedIn®, IMO Messenger®, Facebook®, and WhatsApp® were utilized for distribution.

Questionnaire Reliability and Validation:

Face and content validity were established through consultation with two general pathologists. A pilot study involving 30 participants was conducted to validate the construct among the target population. Feedback from participants during the questionnaire filling process was obtained to identify any issues regarding clarity, response options, and format. The reliability of the questionnaire was assessed through pilot data collection, yielding an internal consistency of 0.82 using Cronbach's alpha.

Statistical Analysis: Data were analyzed using SPSS software, version 25, employing descriptive statistics to present results in numbers and percentages. Chi-square tests were conducted to analyze the relationship between work experience and the referral of cysts and tumors, with significance set at $P < 0.05$.

RESULTS

In our cross-sectional study, 250 pathologists practicing in major cities of Pakistan were included. The majority of participants were private practitioners (29%), followed by senior residents (25%), and assistant professors (19%). According to Table 1, most participants had 0–5 years (34.2%) and 11–15 years (29%) of work experience. Of the total participants, 23 were aware of oral pathology, while 18 were not. There was general agreement regarding the necessity of oral pathologists for diagnosing oral and salivary gland pathologies, although 52 participants disagreed. Additionally, approximately 38.4% and 33.2% of respondents reported that their laboratories handled 2000–5000 specimens annually, with less than 100 specimens being dental-related. Regarding referrals, 137 participants did not refer cases to oral pathologists, while 113 did. Among those who referred cases, 71 referred more than 10 cases per year. Specifically, 108 general pathologists referred cases to oral pathologists for odontogenic cyst diagnosis, while 137 participants did not refer patients for odontogenic tumors. However, 107 participants did refer patients for odontogenic tumors. Each participant expressed willingness to undergo brief training in oral pathology, and it was agreed that oral pathologists should be involved in complex head and neck cases. Work experience was found to be statistically significantly associated with referrals for odontogenic cysts and tumors, with a p-value of 0.001. This indicates that referrals depend on the pathologist's work experience.

Table 1: Aspects of the Respondents socio demographic profile

Variables	***N*** (*n*=250)	**%**
Designation		
Professor	86	18.2
An associate professor	72	15.4
An assistant professor	112	23.4
Senior resident	90	19.0
Private practitioner	140	29.0
Work experience		
0–5 years	142	34.2
6–10 years	108	27.8

Table 2: Case referrals for odontogenic cysts and tumors

Work experience	Referral of odontogenic cysts		*p*-Value	Referral of odontogenic tumor		*p*-Value
	Yes	No	0.001	Yes		
0–5 years	18	65		16		
6–10 years	32	35		32		
11–15 years	42	28		42		
>16 years	16	14		17		
Total	108	142		107		

DISCUSSION:

Oral pathology plays a crucial role in diagnosing and treating oral health conditions, yet there is a lack of awareness among general pathologists in Pakistan regarding the necessity of oral pathologists. Studies have shown that general pathologists recognize the importance of oral pathology but may not always refer cases to oral pathologists. This highlights the need for interventions to increase awareness and improve collaboration between general and oral pathologists. Dental graduates receive extensive training in oral pathology, making them well-equipped to diagnose oral diseases accurately. However, there is a low referral rate for dental specimens to pathologists, indicating a need to raise awareness among dental professionals about the importance of pathological analysis in diagnosis. Despite the importance of oral pathology, a significant number of general pathologists do not refer odontogenic cysts and tumors to oral pathologists, possibly due to a lack of exposure to oral pathology. Collaboration between medical and dental professionals is essential to ensure comprehensive and accurate diagnosis and treatment of oral lesions. In the field of oral pathology, pathologists often encounter challenges in diagnosing lesions, leading to discrepancies and the need for second opinions. However, there is a shortage of oral pathologists, highlighting the importance of training and increasing the number of specialists to meet the growing demand in this field. General pathologists often lack extensive training in diagnosing dental disorders and oral lesions, leading to misdiagnosis or missed diagnoses. Specialist oral and maxillofacial pathology (OMFP) expertise is essential for accurate diagnosis of cysts, tumors, and salivary gland disorders. Bridging this gap requires enhanced postgraduate education in oral pathology. Experience significantly influences the referral of odontogenic cysts and tumors, as demonstrated by various studies. Work experience plays a crucial role in determining referral likelihood for these conditions, highlighting the importance of ongoing education and training for general pathologists. Studies have shown that general pathologists are receptive to short-term posts in oral pathology as part of their training. This underscores the need for modifications in postgraduate general pathology training to incorporate interdisciplinary components and collaboration with oral pathology departments. While this study provides valuable insights into the perspectives of general pathologists in Pakistan, there are limitations to consider. The small sample size and exclusion of other healthcare providers and stakeholders may limit the generalizability of the findings. Further research, including multi-center studies and interviews with different stakeholders, is needed to fully understand the barriers and facilitators to accessing oral pathology services and their impact on patient outcomes and healthcare resource utilization.

CONCLUSION

General pathologists widely recognize the significance of consulting oral pathologists and possess a good understanding of oral pathology. However, they infrequently refer head and neck cases to oral pathologists. It is recommended that head and neck histopathology laboratories consider hiring oral pathology specialists to diagnose complex cases and bridge the gap between the two disciplines. To facilitate this collaboration, modifications to postgraduate oral pathology training may be necessary.

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