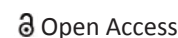


SHORT COMMUNICATION



Oral & maxillofacial pathology in dental education: a perspective

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ABSTRACT

Specialization has become a fundamental characteristic of contemporary medical practice. The designation “Oral and Maxillofacial Pathology” has traditionally been referred to all pathologies of oral and maxillofacial region. It has also been an important bridging specialty between dentistry and medicine. Although we continue to work within the same set of constraints provided by the product of our current educational and training programs, it is time to reconsider this product for sustained growth in the specialty of oral and maxillofacial pathology. We must give thought to innovation within advanced education programs, which would build on the traditional strengths of surgical oral and maxillofacial pathology, and to a greater emphasis on science and academic accomplishment in the form of laboratory-based research. The potential overall contributions of the versatile oral and maxillofacial pathologist to the health care delivery system must be emphasized. Contributions could include active participation in direct patient care for those with oral disease within both the hospital environment and dental school setting. Management of oral and maxillofacial diseases and conditions by the oral and maxillofacial pathologist must also assume a greater level of importance, not just in dentistry but within the health care delivery system as well. The preservation and growth of oral and maxillofacial pathology require greater emphasis on oral pathologist’s role and value within the educational community, the health care delivery system, and the research community. This paper highlights the new area and possible future scope for oral and maxillofacial pathology in dental health care system in India.

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Oral and maxillofacial pathology is the specialty of dentistry that deals with the nature, identification, and management of diseases affecting the oral and maxillofacial regions. It is a science that deals with causes, processes, and effects of these diseases; thus, it is an important specialty that links dentistry and medicine. The practice of oral pathology includes research and diagnosis of diseases using clinical, radiographic, microscopic, biochemical, or other examinations, and management of patients [1].

The profession of oral and maxillofacial pathology officially started in 1946 with the inception of American Academy of Oral Pathology (AAOP). AAOP served as the parent organization of an emerging specialty of dentistry and was approved as such by the American Dental Association in 1950. The official name was changed from Oral

Pathology to Oral and Maxillofacial Pathology in 1995 [2].

The specialty of oral and maxillofacial pathology encompasses a wide range of activities ranging from laboratory services, clinical patient care, basic science research, clinical and translational research, and teaching. Based on the unique training and experience, oral pathologists are capable of providing specialized services that cannot be found anywhere else in the dental health care system [3].

The number of dental institutions and the level of dental care are increasing around the world, indicating that the need for dental care is also on the rise. Modern day dentistry has improvised many of the original clinical procedures. The present day dental courses are giving significant importance to clinical aspects of dentistry, and the

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rate of advancement is more evident in the clinical branches. However, subjects such as oral and maxillofacial pathology still need to have sufficient space for greater incorporation and expansion. Involvement in clinical diagnosis and management of patients should be emphasized by universities to students to ensure advancement in oral and maxillofacial pathology [4].

For oral and maxillofacial pathologist, it is time to come out from set of constraints provided by our current educational and training programs and reconsider present training programs for the sustained growth in the specialty. The preservation and growth of oral and maxillofacial pathology require greater emphasis on oral pathologist's role and value within the educational system, the health care delivery system, and the research community [5,6].

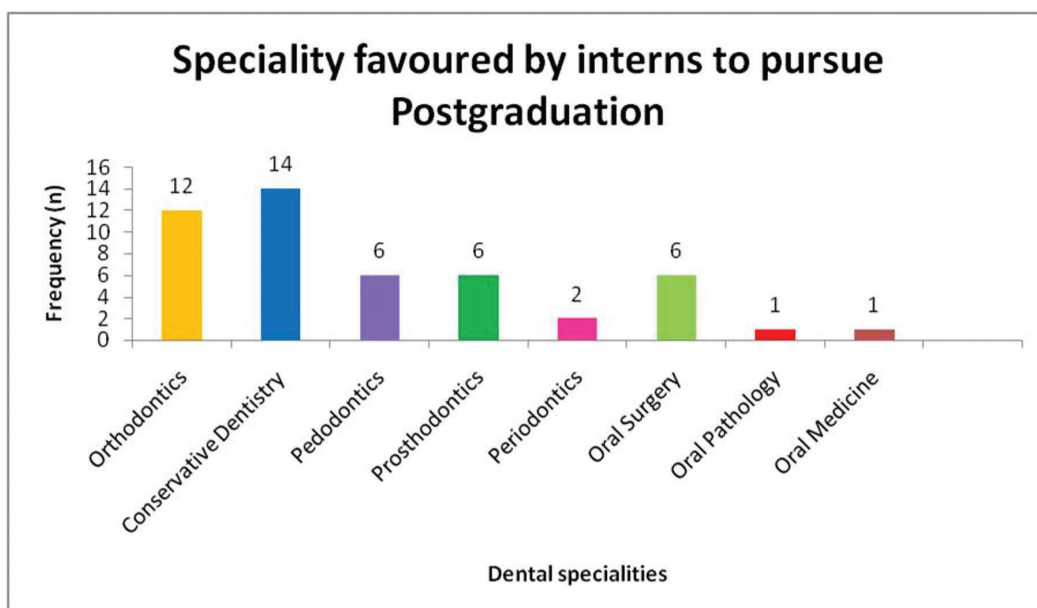
Considering the overall incidence of oral cancer, other head and neck diseases, and also increase in awareness of general public towards these diseases, expertise of disease diagnosis and management will definitely has to have a greater opportunity. Understanding of disease at the microscopic level enables oral and maxillofacial pathologist to translate that knowledge and expertise to the clinical level and will have an opportunity to get included in the patient management team [3,4,7].

At present, a career in oral pathology is something that only a minority of aspiring dentists will ever consider. This situation is due to the lack of job opportunities and drastic increase in the number

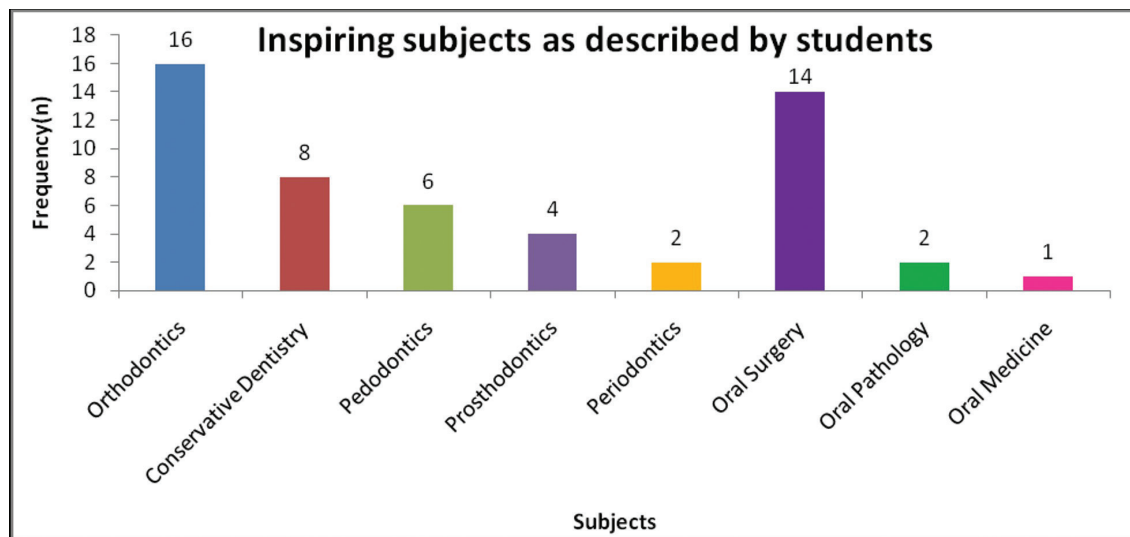
of graduating oral pathologists outnumbering the requirement. An institutional based pilot study conducted among 48 students and 53 interns revealed that oral pathology was the least inspiring among all the subjects and those interested in pursuing post graduation in oral pathology is very low [Graphs 1 and 2].

At present, oral pathology laboratories are restricted to dental institutions only and majority of the services of oral pathologist's are utilized by oral surgeons. It is a known fact that there is a minimum utilization of oral pathologists by dental specialists in their private dental practice, although all of them are aware of the importance of diagnosis. Most of the biopsy specimens handled by oral pathologist's are related to oral cancer and precancers, whereas large numbers of other lesions are being ignored [8]. To preserve the glory of the profession, there is a need for a radical change in our curriculum and training.

Generating demand for oral pathology services is the prime requirement to sustain the growth of the profession. There is a need to create awareness about the significance of utilization of oral pathologist's service in the clinical practice. Oral pathologists should actively get involved in the clinical diagnosis and management of patients. Histopathological examination of every tissue removed from the oral cavity should be made mandatory, so that all dentists realize their responsibility to utilize post-extraction soft tissues and other tissues removed from the oral cavity for better diagnosis, treatment, and



Graph 1. Inspiring subjects as described by students.



Graph 2. Speciality favored by interns to pursue Post graduation.

prognosis of the patient. There is a need for modification of training programs; innovation within advanced education programs and increasing the competence of oral pathologists which has a major role in generating demand, cope with advances in the diagnosis as well as clinical and therapeutic research output. Forming a local group of oral pathologists as a consulting panel can be made, so that the delay in diagnosing because of referral or second opinion can be avoided and also, to improve the quality of reporting.

Oral pathologists need to come in direct contact with the patient for diagnostic evaluation with active participation in direct patient care within both the hospital environment and dental school setting, and play an active role in cancer screening by performing biopsy and cytology procedures themselves. Addition of immunohistochemistry and gene sequencing has strengthened diagnostic pathology in recent years [9]. To achieve this, extensive clinical posting and training have to be made mandatory during postgraduate training.

Management of oral and maxillofacial diseases and conditions by the oral and maxillofacial pathologist must also assume a greater level of importance, not just in dentistry but within the health care delivery system as well. Potential overall contributions of the versatile oral and maxillofacial pathologist to the health care delivery system must be emphasized.

In India, dermatology is one of the leading medical specialties. We must embrace new ideas in a healthy, constructive manner in an effort to expand our scope by blending diagnostic and therapeutic components, similar to dermatology [5].

More clinical exposure is required by involving in direct patient care for diagnosing and managing oral mucosal diseases and soft tissue diseases whose primary treatment is non-surgical or minor surgical procedure.

Research is a critical component of the academic world. However, each of us possesses a different set of capabilities when it comes to such scholarly activities. For some oral pathology academicians, basic science research is the major duty that occupies most of their daily jobs. Other oral pathologists have duties and interests more attuned to the arena of clinical patient care, with research being emphasized to a lesser degree. Ph.D. programs for the oral and maxillofacial pathologist should be redesigned, so that students receive the necessary training to begin a research-based career in oral disease after graduation.

Oral pathologists need to take lead role in all research activities of dental institutions which include clinical and basic research in the areas of cell and molecular biology, stem cell research, immunology, and genetic studies for various kinds of oral diseases such as developmental, inflammatory, neoplastic, and metabolic disorders.

Oral pathologists should be encouraged to learn clinical aspects of dentistry through short courses during post graduation programs. Oral pathologists make good dentists as they have a good knowledge of disease and its diagnosis which always makes oral pathologists to practice quality general dental practice.

Diagnostic and investigative labs have a good scope in India. Curriculum needs to be modified to train oral pathologists to be able to establish and

manage microbiology, hematology, biochemical, and oral pathology labs single handedly.

As forensic odontology is much needed specialty in India, the creation of forensic odontology as a separate specialty may initially create job opportunities to oral pathologists as a member in forensic team. However, in the long run, the position occupied by oral pathologists will be replaced by qualified forensic odontologists. Hence, oral pathologists should also be a part of the forensic team, which requires extensive training in all aspects of forensic sciences during post-graduation. To remain in the forensic team, the curriculum needs to be modified and framed in such a way that oral pathologist should be able to handle the major part of the case independently.

To conclude, one must remove barriers that serve to isolate us from other components of the health care system, while reinforcing the importance of oral and maxillofacial pathology to members of our own profession. We must also embrace new ideas in a healthy, constructive manner in an effort to expand our scope by blending diagnostic and therapeutic components. Oral and maxillofacial pathology is in a position to lead our profession, but educational programs must be redesigned to allow innovative growth and the development of skills in our graduates that will be valued by the research community on one hand and the health care delivery system in the 21st century.

This vision for oral and maxillofacial pathology, if planned properly, may lead to a bright future

for training oral and maxillofacial pathologists in India.

Conflict of Interest

Authors do not have any conflict of interest.

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