



Genesis of Oral Pathology as a Distinct Dental Specialty

Souparna Roy

ABSTRACT

Today, oral pathology as a subject has distinctly developed as a specialty of dentistry which impregnates other specialties like pathology, molecular biology and genetics. It has been christened now as oral and maxillofacial pathology and is an integral part of the dental curriculum providing the crucial link between basic sciences and clinical dentistry. Pathology of the dental and oral tissues has been there since the beginning of dentistry. It came to be recognized with importance in a period when Pierre Fouchard gained eminence though it was not a separate specialty during that time. The distinction that this subject gets today is certainly due to the tireless work of several individuals of the bygone days most of whom were medical and dental specialists, pathologists, general dentistry practitioners, academicians and researchers. This article gives the highlights of the earliest movements recorded in making 'oral pathology' a specialized branch of dentistry.

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INTRODUCTION

Today, oral pathology as a subject has distinctly developed as a specialty of dentistry which impregnates other specialties, like pathology, molecular biology and genetics. It has been christened now as oral and maxillofacial pathology and is an integral part of the dental curriculum providing the crucial link between basic sciences and clinical dentistry.¹ This specialty is also special because it is the unique meeting point of research and clinical dental practice.² Oral pathologists unlike their colleagues in other dental specialties cannot only observe and identify the gross manifestations of disease in the oral cavity but also have the capability to appreciate and understand its microscopic manifestations at the cellular level. One of the major accomplishments of oral pathologists (talking exclusively of the Indian context) is the creation of

Journal of Oral and Maxillofacial Pathology which has been noted to be of 'high standard comparable to any other international publication'.³

The distinction that this subject gets today is certainly due to the tireless work of several individuals of the bygone days most of whom were medical and dental specialists, pathologists, general dentistry practitioners, academicians and researchers. True as it is that no specialty can ever develop without the pioneering and meticulous contribution of several such individuals.

So, the question arises, how did this journey of creating a new distinct dental specialty named 'oral pathology' begin? This article gives the highlights of the earliest movements recorded in this regard and hopes to excite the interest of the oral pathology student and professional alike toward our subject while remembering the contribution of the pioneers.

FORMATION OF THE EARLIEST ACADEMY AND BOARD OF ORAL PATHOLOGY

Pathology of the dental and oral tissues has been there since the beginning of dentistry. It came to be recognized with importance in a period when Pierre Fouchard gained eminence though it was not a separate specialty then.⁴ The making of a separate specialty on its own right is an American phenomenon.

In 1932, the New York Institute of Clinical Oral Pathology was founded which conducted monthly conferences where dental interns participated, proceedings of which were published. Establishment of a pathologic laboratory and a course in clinical oral pathology in 1934 were also accomplished by the institute.⁵

The 'Registry of Dental and Oral Pathology' was established by the American Dental Association in the Army Medical Museum situated then in Washington DC.⁴ The coming into existence of the then Army Medical Museum which began in 1860 is a whole new story in itself, documented by Robert S Henry.⁶ The original purpose of the Registry was to create an interest of tissue biopsy among practicing dentists and obtain material which could be used for the purpose of research and teaching in dental schools. Colonel James B Mann was entrusted with the huge responsibility of being its first registrar.⁴

A meeting was held on 7th June 1946 to decide whether it was feasible to create an organization

Consultant Dental Surgeon

Calcutta Institute of Maxillofacial Surgery and Research
Kolkata, West Bengal, India

Corresponding Author: Souparna Roy, Consultant Dental Surgeon, Calcutta Institute of Maxillofacial Surgery and Research, 200 Rajdanga, Nabapally, Kolkata-700107, West Bengal, India, Phone: +919830712900, e-mail: roysouparna@gmail.com

specifically dedicated to a new branch of dentistry called oral pathology. Those present in the meeting were Kurt H Thoma, Donald A Kerr, Lester R Cahn, James Roy Blayney, Joseph L Bernier, Hamilton BG Robinson and Henry A Swanson (who represented the American Dental Association). The response was affirmative and the name American Academy of Oral Pathology was proposed for the organization. A draft of a constitution was made and it was decided that two levels of membership would be there in the Academy. The first group would be designated as Fellows consisting of those people who were already established in oral pathology as research workers or teachers. The second group would be designated as Members consisting of practicing dentists with an interest for oral pathology who could become Fellows by actively participating in the activities of the Academy and passing the Fellowship examinations.⁴

The American Board of Oral Pathology was announced on 6th February 1948, during the third annual meeting of American Academy of Oral Pathology, and incorporated on 8th November 1948.⁷

The final list of officers during the first year of the Academy included Kurt H Thoma, President; Lester R Cahn, President-elect; Donald A Kerr, first Vice President; James Roy Blayney, second Vice President; Hamilton BG Robinson, Editor; Joseph L Bernier, Secretary-Treasurer.⁴ Originally, there were 20 charter Fellows and 11 charter members a figure of 31 at the very beginning which rose to almost 100 in the first year. After the first annual session of the academy, it was decided to conduct slide seminars and case discussions.⁴

The American Dental Association started issuance of acceptances to certain dental specialties in 1948. Periodontia, orthodontia and oral surgery were the only dental specialties that got recognized at that time. It is interesting to note that after a series of discussions and correspondences with the secretaries of the Council of Dental Education of the American Dental Association by the then secretary of the Academy, Dr Joseph L Bernier, and appropriate forms filled and submitted, the response meted out was an unfavorable one. The Board of Trustees recommended the disapproval of oral pathology to be made a specialty subject. All the painstaking effort to make oral pathology a specialty seemed to go in vain. A dilemma cropped up among Dr Bernier and his colleagues whether to take the matter to the House of Delegates against the recommended disapproval given by the Board of Trustees because the consequences of such an action could have been positive as well as negative and the possibility of success minimal. Finally, Drs Henry Swanson, Joseph L Bernier, James Roy Blayney and Herbert Bunker successfully spearheaded the issue on the

floor of the House of Delegates which voted unanimously in favor of oral pathology to be made a specialty.⁴ The American Board of Oral Pathology got approval from the American Dental Association in 1950.⁷

EARLY CONTRIBUTORS AND CONTRIBUTIONS IN ORAL PATHOLOGY

The article by Lester R Cahn published in 1959 enlists many of the early contributions to the development of this branch of dentistry.⁸ The list starts with John Hunter who published 'The natural history of the human teeth: explaining their structure use formation growth and disease' in 1771. Hunter published a supplement 7 years later entitled 'A practical treatise on the diseases of the teeth intended as a supplement to the natural history of the Parts.' He was the first person to use terms 'cuspid', 'bicuspid' and 'molar'.⁸

Sir Charles Bell's greatest contribution at that time was showing the difference between the functions of the seventh and fifth nerves. Till that time it was generally accepted and believed that both nerves had the same function.⁸ John Fothergill was the first to describe in English symptoms and differential diagnosis of trigeminal neuralgia.⁸ John Tomes and De Morgan published a paper entitled 'Observations on the structure and development of bone' in 1853 as they were the first to call attention to the fact that resorption of bone and teeth was a process caused by cellular activity. Their observations came 20 years before Kolliker named the cells 'osteoclasts'. Tomes contributions were manifold. He designed many extraction forceps, took active participation in the passage of Dentist's Act which was the first act to regulate dental practice in England and was also the first dentist to sign in the dental register in 1878.⁸

Sir Jonathan Hutchinson at the age of 30 wrote a paper titled 'Reports on the effects of infantile Syphilis in maturing the development of the teeth'⁸ for which he is still known today and the teeth named after him 'Hutchinson's incisors'. His publications of a course of lectures and papers were tremendous as he was deeply interested with diseases of teeth and oral cavity though he himself was a general surgeon.⁸ Sir James Paget contributed much on bone diseases affecting the jaws and Henry T Butlin was the man who did the histopathological examination of the bones in Paget's cases.⁸

Louis Charles Malassez is responsible for presenting the earliest explanations of the origin of epithelial tumors of jaws and cysts with epithelial lining. Until that time it was thought that the epithelium which formed teeth disappeared after formation of dentitions.⁸

Probably, the first textbook of oral pathology was published in 1929 entitled 'A Textbook of Oral Pathology,



for students and practitioners of dentistry⁹ though there were other publications on dental medicine and dental diseases before, such as 'A practical treatise on dental medicine',¹⁰ 'Le Chirurgien Dentiste, on Traite des Dents'¹¹ and 'The anatomy physiology and diseases of the teeth.'¹²

FATHER(S) OF ORAL PATHOLOGY

Several distinguished individuals have been monumental in their efforts in creating and developing the specialty of oral pathology. But, the question as to who should we regard as the 'Father of Oral and Maxillofacial Pathology' has still not been answered. Lester R Cahn in his article has opined that Sir Jonathan Hutchinson should be designated as the earliest oral pathologist.⁸ Sir Hutchinson was a general surgeon with a mind deeply interested in diseases affecting the teeth and mouth and his contribution regarding oral diseases, probably, was more than anyone of his time.⁸

On the contrary, Jerry E Bouquot and Elizabeth C Lense in their article believe Thomas E Bond should hold the distinction of being the first oral pathologist because of his remarkable insight and capability of hypothesizing pathophysiologies and etiologies that remain valid even today.¹³ It is stated that Thomas E Bond should be recognized as the 'Father of Oral and Maxillofacial Pathology' for his immense contribution to the subject.¹⁴ Some believe that Kurt H Thoma's work and contribution for the development of this specialty makes him the founder of oral pathology.¹⁴

Ivan Oransky mentions Robert Gorlin as the 'Father of Oral Pathology' in his article where he has written. 'It was sometime in the late 1940s that dentist Robert Gorlin, then a fellow in surgical pathology at Columbia University, decided he would create the specialty of oral pathology'.¹⁵ Thus, no 'one' name is universally accepted as the 'Father of Oral Pathology'.

CONCLUSION

The pioneers of this branch of dentistry, oral pathology, took tremendous efforts to get it recognized as a distinct specialty. Several learned individuals and professionals contributed to make this specialty one of the most enriched out of all the specialties of dentistry. The future lies on how oral pathologists today conceptualize and develop this branch in time to come.

The services provided by oral pathologists need to be qualitatively enhanced as well as more awareness created of our work outside dental circles.¹⁶ Oral pathologists have a crucial role to play in the promotion of oral

health and this specialty requires a lot more expansion and coverage in India.¹⁶

This branch is not one of the first of choices of a dental graduate who aspires for postgraduation after passing BDS.¹⁷ This is certainly disheartening news but if requisite changes (intellectualized by experienced academicians and clinicians of oral pathology) in the way of imparting training in oral pathology be made possible along with more avenues of work and livelihood for young postgraduates then that would certainly enliven the spirits of dental graduates to take up this specialty for study. The day is not far away when oral pathology will be the first choice of subject a dental graduate will aspire to study in postgraduation.

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