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Defining periodontology in era's

Dr. Parv Agarwal

Assistant Professor, Department of Periodontics, Kothiwal Dental College and Research Centre, Moradabad
Corresponding author email: parvagarwal@gmail.com

Prashant Kumar Shahi

Assistant Professor, School of Dental Sciences, Sharda University, Greater Noida

Praveen Gangadharappa

Assistant Professor, College of Dentistry, Jazan University, Saudi Arabia

Rishibha Bhardwaj

Associate Professor, School of Dental Sciences, Sharda University, Greater Noida

Aartika Singh

Assistant Professor, School of Dental Sciences, Sharda University, Greater Noida

Abstract--It has been very nicely quoted by Ambroise Paré that "There are five duties of surgery: to remove what is superfluous, to restore what has been dislocated, to separate what has grown together, to reunite what has been divided, and to redress the defects of nature.¹ Ambroise pare in the year 1537 gave rise to a revolution in surgical techniques in the medical field. Defining surgery at the 21st century has been only possible by his constant dedication and hard work. Surgery has been defined as the act and art of treating diseases or injuries by manual operation. If this broad definition is used, nearly all periodontal treatment, from hard or soft tissue curettage through osseous surgical procedures, falls under the heading of "periodontal surgery". In basic term "periodontal surgery" is specified only till surgical manipulations of periodontal soft tissues and bone and not carrying out debridement and root planning.²

Keywords--Era, Periodontology, Centuries, Periodontal surgery, Evolution, Implant.

Introduction

The maturity of scientific specialty is marked by knowledge of its roots, an understanding of its historical past, and recognition of the role of its forefathers in attaining its present status. The realization that current knowledge is but a fleeting phase in the development of science and technology clarifies why understanding the origins of this knowledge helps to remove accurately look into the future. Research in the last decade linking periodontal health with the cardiovascular, respiratory, and endocrine systems lends credible scientific support to the concept that Periodontology is integral to the medical sciences. This concept is stressed from the historical point of view. Gingival and periodontal diseases have afflicted humans since the dawn of history. The ancient historical medical records disclose a vast apprehension of periodontal disease and the necessity of treatment. Oral hygiene was practiced by the Sumerians, the Babylonians, and the Assyrians, including gingival massage combined with various herbal medications.³ Finding periodontal disease was the most common routine practice in the preserved bodies of the ancient Egyptians.⁴

Discussion

Periodontology has been slaying the world of dentistry since ages and still continues to do so. The fundamentals of the dental profession including periodontics and dental hygiene were not identified by the world, until a particular type of dental disease, had high flown in a vast population. The disease being in a budding stage had the capability of causing pain, illness and thus inflating the morbidity and the mortality rate. This stands in contrast to our current evidence based treatment. Practically, one of the first things to be sure of ,when treating a disease is to identify the cause of the disease. In addition there should be a sound knowledge and understanding of the origin and history of a disease, so that it can be treated and resolved with utmost care at all the stages and the prognosis of the disease could be determined. So understanding the disease and providing the right treatment considering the need of the hour, became the motto of the speciality. Being the backbone of dentistry, in other words Periodontics can be called as the hard core branch, the main focus was on following the basic principles of surgery i.e. to remove the diseased part, without harming the original integrity of the mucosa. Based on the type of diseases and their occurrence, various surgical processes evolved with time. Various surgical techniques such as Gingivectomy, osseous surgeries, Guided tissue regeneration, flap surgeries, crown lengthening and technique like Implants came in to existence. Many Periodontists continued to reject all kinds of surgical periodontal therapy and advocated only the "scaling and curettage" technique. The periodontal world was divided into two camps: those recommending conservative treatment (scaling and curettage) and those using the radical approach (surgery). The latter group had two subgroups: the gingivectomy proponents and the flap surgery. Several decades passed before indications for each procedure were determined and a more rational approach to therapy followed. The gingivectomy technique continued to be the more widely recommended and practiced technique.⁵

The Beginning

Focusing over the evolution and historical perspective of the branch, romans in 25 BC-50 AD Aulus Connellius Celsus referred to diseases that damaged the soft parts of the mouth and that their treatment was practicing oral hygiene. There after Paul of aegina during 625- 690 AD wrote that tartar deposits must be removed or scraped in order to prevent the disease occurrence. Then in 980-1037 AD Materia Medica was used for oral and periodontal diseases and rarely resorted to surgical procedures.⁶

13th -15th Century

The time between 1385-1468 marked the invention of surgical removal of hypertrophic and swollen gingiva and lingual frenum. And there after came in to existence was an unusual theory of diseases which was called as DOCTRINE OF LAPSE during 1493-1541. In the fifteenth century from 1520-1574 Bartholoneus Eustachius wrote small book on Dentistry "A little treatise on the teeth" and included a depiction of periodontal tissues, including scaling of calulus and curettage of granular tissue. Ambrose Pare contributed to dental surgery in the year 1509-1590 to perform gingivectomy procedure for hyperplastic gingival tissue. In the year 1530 the first book of medicine of teeth was published which guided to practice evidence-based dentistry in a more practical way.⁶

Manuscript Time-16th- 17th Century

A marked beginning in literature and publishing of books began from 16th century and the work continued till 18th century. Invention of the microscope by Anton van Leeuwenhoek (1632-1723) of Delft, Holland was an icebreaker in the field of dentistry. Though being an amateur he had a curious brain and a hobby of pounding lenses. He used material from his own oral cavity and first described oral bacterial flora, and his descriptions represented a sensible reason for presence of oral spirochetes and bacilli. He also carried out antiplaque experiments using strong vinegar in his own mouth, and in-vitro on bacteria in a dish.⁷

There after Pierre Frauchard in the year 1728 published his book "The Surgeon Dentist" which covered all the aspects of dental practice including restorative, Prosthodontics, Oral surgery, Periodontics and Orthodontics.⁸ Periodontal problems were addresses in a book by Thomas Berdmore from England (1740-1785). Then John Hunter (1728-1793) wrote the book "The natural history of human teeth".⁸

18th century- marking of a footprint

During this time an important discovery was under process, the unfolding of implants. In the year 1806 Italian M.Maggiolo attempted to replace the roots of teeth with solid gold.⁹ Leonard Koecker a German born dentist, mentioned tartar and its removal for the need of oral hygiene by the patient in the year 1821.¹⁰ The Principles of dental surgery were proposed by Koecker in 1826. Hence aiding in the foundation of first dental school in Baltimore in 1840.¹¹ With the concepts

getting established and more clearer began the invention of various aids. Levi Spear Parmly from New Orleans who is contemplated as the father of oral hygiene (1790-1859) invented dental floss. With this advancement the foundation of American Dentaire Association was laid down in 1859.¹² In the 18th century John W. Riggs (1811-1885) was the chief mastery on Periodontal disease and thus periodontitis was called as Rigg's disease.¹³ Dr. G.V black called as father of Modern Dentistry described cavity preparation in 1896. J. Leon Williams an American dentist described a gelatinous accumulation of bacteria adhered to enamel surface (1852-1935). In the end of 18th century 1899, G.V Black coined the term gelatinous microbial plaque.¹⁴

19th century and the continuity

The beginning of 19th century brought storming change in the practical application and treatment of diseases. In 1901 Trauma from occlusion and bruxism were first described in periodontal disease by Austrian Dentist Moritz Karolyi.¹⁵ After then, in 1906 C. Edmund Kells exposed first dental radiograph to the world.¹⁶ In 1912 Neumann described the principles of periodontal flap surgery.¹⁷ Now with all the outstanding discoveries it was the time to establish a proper society for the recognition of the work done in the field, and thus came in to existence American association of oral prophylaxis and Periodontics which was laid by Dr. Grace Rodgers in 1914. Thereafter in 1919 American Academy of Periodontology was established, which reflected the golden stories of the discoveries and advancements.¹⁸ Few pieces of researchers which started in the end of 18th century extended upto the 19th century and after the reinforcement of principles of flap surgery various techniques started developing. Salomon Robicsek from Hungary (1845-1928) invented a surgical technique which included gingivectomy excision in a continuous scalloping pattern, uncovering the marginal bone for subsequent curettage and remodelling. The procedure of implanting cobalt chromium screws in tooth sockets gained popularity and was first done by A.E. Stock in 1939. And finally in Circa all the hard work showered upon its glory with the recognition of Periodontics as a 2nd specialised branch after Orthodontics.¹⁸

1950 can be marked as the golden time for the finally incepted implant technique. Swedish orthopaedic surgeon Perr- Ingvar Branemark developed a technique using titanium screw shaped intraosseous implants.¹⁹ From (1879-1952) Oskar Weiski carried out pioneer studies related to radiographic and histopathologic changes in periodontal diseases. There after J.Orban 1899-1960 performed immense histologic studies on periodontal tissues.

Conclusion

Scientific discoveries are the observations explanations and predictions of the real world phenomena. From the historical times beginning from the basic understanding of fire and its uses up to the wonderful, miraculous advances of the twenty first century, we have given the world every basics of learning with there practical application and approach. Understanding of the evolution of procedures minor to major will aid in better treatment planning and prognosis.

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