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INDIA
15th August
INDEPENDENCE DAY

A
**SALUTE
TO OUR
HEROES**



Editorial

United We STAND...



Dr. Sai Kalyan

MDS, MS, PHD



“At the stroke of the midnight hour, when the world sleeps, India shall awake to life and freedom.” These words are firmly etched into the hearts of every Indian. This independence and freedom we enjoy, did not come free. Our freedom is a result of unlimited sacrifices by generations of Indians who fought hard so that we can enjoy a life of liberty. Their sacrifice has ensured we have the freedom and

opportunities that are so enjoyable and rewarding in everyday life. As India celebrates its 74th Independence day on 15th August 2020, it is time to remember those who sacrificed their futures so that we could enjoy our present. We have had our fair share of challenges as a young nation with vast cultural diversity, but we have been able to break those shackles and move ahead.

The toughest challenge in these 73 years of independence has been the “COVID era”. Although we have tackled the COVID-19 pandemic with relatively less morbidity and mortality, we are going to witness tectonic changes during the post Covid Era. Once it is under control we need to analyze its impact on physiological and professional fronts and make a foolproof plan to tackle such situations in future and laydown a roadmap for a healthy and prosperous India. We as healthcare professionals will play a vital role and I am sure we will do our best to sail us to safety and prosperity..

Dr. Sai Kalyan, editor in chief.



COMMON ERRORS IN RUBBER DAM APPLICATION

Article
01

Dr Pavana Kamath

Rubberdam application in Restorative dentistry and Endodontics is an integral part of practice .Once the technique is mastered the actual process of application takes only a few minutes. Although the process of rubberdam application looks simple,it comes with a lot of attention to detail and observation and constant learning through practice and watching .

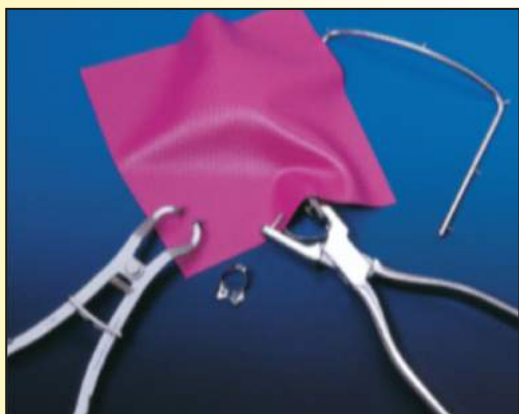
Learning what not to do is as important as learning what to do .Enlisted below is a list of common errors in rubberdam application.

-Storage and sterilization of rubberdam armamentarium :

1)Every clinician should invest in both latex and non latex rubberdam sheets ,they should be stored separately and the armamentarium used for latex sheets should not be mixed with non latex sheets.

2)Every equipment in the armamentarium including the forceps and punch should be autoclaved as per manufacturer instructions.

3)The powder which is used on the rubberdam sheets is often not wiped prior to rubberdam application .The ingredients in the powder could be a source of allergy and hence carefully wiping it off with gauze soaked in water could help reduce the risk.



-Selection and use of clamps :

1)Most of the operators use the clamps that are a part of the kit supplied by the manufacturer and hence have limited clamps put to use. It is essential that the operator carefully chooses the clamps based on his/her clinical requirement and total number of clinical cases per day.

2)Selection of clamps prior to placement is essential ,random placement of clamp could cause a misfit. This could lead to the clamp slipping off the tooth during treatment leading to dangerous consequences .the clamp could also cause trauma to the gingiva ,leading to patient discomfort .An ill fitted clamp could cause damage to the restorations, crowns etc.

3)Failure to secure the clamps-every clamp has a tendency to break if not handled properly or due to wear and tear.

Retrieving the broken pieces is easily possible if the clamp is carefully secured with a floss.

4)Careless irrigation with concentrated sodium hypochlorite solution during root canal treatment leading to corrosion of clamps ,will reduce the life of the clamps.Irrigation should be focussed within the root canal system using specific irrigation needles and high vacuum suction.

5)Excessive bucco-lingual stretching of clamps during placement –this will again reduce the life of the clamps.



-Failure to carefully tuck in the free end of the floss used to secure the clamp : The free end of the floss could be a source of salivary leak due to capillary action if the free end is not secured properly.



-Failure to anaesthetise the marginal gingiva prior to placement of clamps : this could lead to patient discomfort and lack of cooperation during clamp placement.

-Failure to push the rubberdam sheet interdentially : It leads to leakage of saliva and loss of moisture seal.





COMMON ERRORS IN RUBBER DAM APPLICATION

Article
01

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-Punching a hole smaller than the size of the tooth : While sliding the rubberdam sheet interdentally, it would be stretched excessively and it increases the chances of tearing of the sheet at the margins.



-Punching a hole too large for the tooth : Lack of marginal seal ,inability to establish marginal inversion of the rubberdam sheet.

-Using the wrong gauge of rubberdam sheet : Using a sheet too thin would lead to tearing of the dam,using a sheet too thick would increase the difficulty level of placement and possibility of patient discomfort.

-Failure to lubricate the rubberdam sheet and interdental surface of teeth prior to multiteeth isolation : Difficulty in multi teeth isolation,chances of tearing the rubberdam ,patient non cooperation.

-Failure to apply retraction cord and Teflon to facilitate rubberdam inversion in deep proximal cavities : It is impossible to achieve rubberdam inversion in deep proximal cavities without gingival margin retraction with retraction cord and Teflon .

-Failure to perform the pre endodontic build up : When one or more walls of the tooth are missing, its inconvenient to perform any part of root canal procedure without an adequate pre endodontic build up. This could not only make rubberdam isolation difficult but also fail the purpose of isolation.

-Failure to support a brinkers with a retentive molar clamp : Inadequate unstable isolation

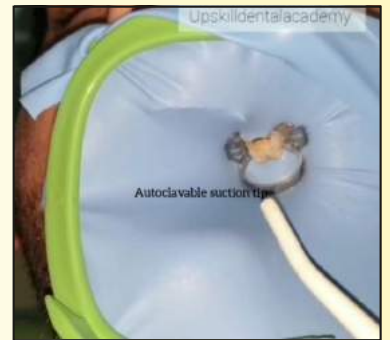


(The Brinkers should always be supported with a retentive clamp)

-The rubber dam frame could injure the eye if the eyes are not covered with protective eye wear.

-Special care of proper segregation and arrangement of rubberdam armamentarium with planning of isolation for each case well in advance to execution.

-The operator should note that the suction tip used inside the mouth cannot be placed next to the disinfected tooth isolated with rubberdam, hence a separate suction, one for saliva and one for the disinfected tooth have to be maintained.



-Failure to check remnants of rubberdam tags interdentally, after removal of rubberdam sheet. Leaving behind tags of rubberdam interdentally could lead to inflammation of interdental papilla. Careful flossing after rubberdam sheet removal ensures healthy gingival status.



Rubberdam placement is easy to learn and execute. The problems are encountered only when the operator ignores the finer aspects in application. The challenge posed by the virus SARS CoV 2, severe acute respiratory syndrome coronavirus 2 has further reinforced the benefits of rubberdam use in dentistry.



Profile of the month

Dr. Pavana Kamath

Dr. Pavana Kamath completed her Masters in Conservative Dentistry and Endodontics in the year 2000, from Manipal College Of Dental Sciences Mangalore. (GOLD MEDALLIST).

Recipient of the Guident Dental Academic

Excellence Award for the year 2018 Director-Upskill Dental Academy, Mumbai, India. Practising Endodontics for the last 20 years. (Micro Endodontist) at Mumbai (current) and Delhi (2000-2001) Teaching Faculty-fellowship in Microdentistry, IDA Prabhadevi, H.O. She lectures Extensively on topics related to Endodontics and Microscopic Dentistry all over India.

ABSTRACT-

The advent of information technology has affected the practice of histopathology in a lot of promising ways. There has been lot of data collection, recording and collaboration in the pathology practice. The computational power has shown a series of developments starting from developing software algorithms to diagnose slides in an easier and efficient way. In these recent times, telepathology and teleconsultation has proved to be beneficial not only for practitioners but also for patients and trainees. Automation and digitization are two key elements responsible for advancements in the field of histopathology, this paper will depict the essentialities related to this key elements.

Key words : Automation, Digitization, histopathology, telepathology.

INTRODUCTION :

The most important factor in today's era is "time". These days manual working in the laboratory has become more expensive and error prone. There have been high chances of errors in diagnosis, tampering of data and inappropriate treatment planning due to data irregularities. The manual way of working in the histopathology laboratory is described as very inefficient these days so the system is gradually inclining towards automation; where the work will be more efficient and less error-prone.

There are few important steps which are essential in automation of a laboratory.

1. Data accumulation.
2. Clinical Communication.
3. Sample loading
4. Sample handling
5. Digitization of slides and diagnostic automation.

DATA ACCUMULATION :

The most important thing in data handling is to have a well functional website or a web address where online preformats related to the case, the source of origin can be fed and saved. Once the details are fed a unique histopathology number is generated and this histopathology number remains constant for all the steps from the clinician to the laboratory to the histopathology stand back to the clinical department for treatment planning¹.

CLINICAL COMMUNICATION :

There must be few following things which must be considered i.e. clinical image to be stored, all the descriptive talks from the clinician including the signs and symptoms must be recorded in the form of videography, Elicitation of all the investigatory notes in the form of video and photographs. Macroscopic details immediately after obtaining the sample from the patient must be stored in form of an image.

The SAMPLE LOADING must be done into the sample containers as sent from the lab in sealed pouches which necessary has the storage or the transport medium on submission of the data sheet. The pouch contains the unique sample number with the barcode which can be scanned at any step. The container must have a special

latch or the hook which do not need any additional handling other than the packaging onto a separate seal pouch provided by the laboratory. The sealed pouch must have the address of the lab and the clinic address already printed so that there is no miss information in the delivery system.²

SAMPLE HANDLING :

Macroscopic image of the sample provided by the clinician in the initial steps must be matched with the current stage to note, if any disintegration or dissolution of the sample has happened over the transfer of the sample. Automatic tissue processes³ are used for processing the sample and the automatic microtome used for sectioning the sample is done in this automated labs.

DIGITISATION OF HISTOPATHOLOGY IMAGES has created a revolution in the field of diagnostic pathology worldwide. It has enabled propagation of knowledge, sharing of cases and research within no time. The slide digitization involves the series of advancements like motorized microscopes, scanners for whole or focal slide scanning and the softwares related to the scanners. Motorized microscopes are specialized having fixed components in built in them which have the ability to capture image in the series. Recently software which have been proven to be promising are SVIQ software⁴, OEI-TuBaFrost⁵, Bio Pool⁶ etc. which not only scan the area of interest in the slides but also helps to create and worldwide archival system⁷; which in further helps to give an automated diagnosis and grading of the lesions based on the fed archival memory.

CONCLUSION :

The automation in laboratory and digitalization of slides has the potential to overcome the inherent drawbacks of traditional histopathology. Recently many laboratories have already started working with such advancements which are indirectly helping many pathologists across the world to get accustomed to this. Accessing a slide from any remote corner and rendering a correct diagnosis will soon come to existence. Automation in histopathology will help in a faster work flow with better perception of pathology among histopathologists.



Dr. Abhishek Banerjee

MDS (Oral & Maxillofacial Pathology)

ABSTRACT : Practicing Oral histopathologist, The practice of oral and maxillofacial pathology, Durgapur. Assistant Professor, Oral and maxillofacial pathology (P.G Dept), Awadh Dental College Hospital, Jamshedpur.

Consultant to various clinics in Durgapur, West Bengal. Completed Undergraduation in the year 2012 from Sri Siddhartha Dental college, Tumkur and Post Graduation in the year 2016. Has been crowned with best paper and poster presenters in various national conferences. Holding good interests in oral epithelial pathology and salivary gland neoplasms. Speaker in IDA CDE program. Published papers in national and international journals. Reviewer of national and international journals.



Prevest update



Prevest Denpro Partners with AB Shetty Institute of dental sciences

Prevest DenPro limited and AB Shetty Institute of Dental Sciences, Mangalore signed an memorandum of understanding for promoting research with special emphasis on Biomaterials, Drugs, herbals, Regenerative science and related fields. AB Shetty Dental Institute is one of the finest dental colleges in the country with well-equipped instruments and materials. AB Shetty Dental College and Hospital provides both undergraduate and postgraduate courses in the field of dentistry and maintains high standards of health care delivery.

This MoU intends to bridge the gap between academics and the industry. And help us create new opportunities in collaborative innovation and translational science. The academic infrastructure of AB Shetty Institute of dental sciences combined with the Industrial experience of Prevest Denpro would take dental product realization to a completely new level.



Product Profile



Accusil Putty & Light Body:

Accusil is an addition-curing vinyl polysiloxane impression material that features excellent wettability, tear strength and dimensional stability. It is suitable for application in fixed prosthodontics, operative dentistry, removable prosthodontics and implant dentistry.