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Changing perception of pediatric dental practice during global COVID-19 pandemic: The new normal

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Abstract
The COVID-19 pandemic has spread across the globe and is the greatest challenge faced by mankind today. The impact of the severe acute respiratory syndrome coronavirus (SARS CoV-2) pandemic has been unprecedented, especially in health care. Overwhelming amount of information flooded the literature to the point that dentists and specialists alike might feel more confused than knowledgeable, which can make decision-making a challenge. Pediatric dental community is no stranger to infection control and to treat patients with highly infectious diseases. With careful planning, modifications, and sound clinical judgment, it is certainly feasible to provide routine care to the patients during the pandemic and serve the community. It is of particular importance for pediatric dentist to take appropriate measures to minimize the risk of infection to their patients, themselves, and other members of the dental team. This review article discusses the risk of COVID-19 infection in children and healthcare workers, especially pediatric dentists, and preventive measures to be taken care of, to avoid the risk of spread of CoV-19 infection.

Keywords: Pediatric Dentist, COVID-19 pandemic, Global pandemic, SARS- CoV-2, Sanitization, Hand hygiene

Introduction
As human civilizations flourished, so did infectious disease. Large number of people living in close proximity to each other and animals, often malnourished with no or poor sanitation, provides breeding grounds for diseases. Globalization and the overseas trading routes is thought to be the main cause of the spread of novel infections far and wide, creating the global pandemics. A pandemic is an epidemic, which occurs on a huge scale and crossing international boundaries, affecting people globally.

The Novel Covid outbreak
The World Health Organization (WHO) announced that the COVID-19 outbreak had become a public health emergency of international concern on January 31, 2020 and then categorized it as a pandemic on March 11, 2020. The novel coronavirus disease (COVID-19) pandemic has emerged as a community health crisis and is spreading exponentially across the globe. The pattern of the community spread is alarming and has imprisoned the entire international society.

Mode of Transmission
The primary route of spread of COVID-19 is via respiratory droplets or through contact with an infected person. Air borne spread of Covid – 19 occurs when infected person cough or sneeze, whereas the fomites transmission could occur through touching contaminated inanimate objects or aerosolization transmission in a confined space. Viability of novel coronavirus have been reported to be up to 3 days on inanimate surfaces, at room temperature.[1]

Source of Transmission
Symptomatic patients are not the only source of coronavirus infection, recent studies have reported the contribution of asymptomatic patients and those in their incubation period are also

the carrier of SARS – CoV-2 disease.2,3 SARS-CoV-2 has a mean incubation period of [5, 6] days from exposure to onset of symptoms, ranging from 2 to 14 days [4].

Clinical Manifestations

Typical signs & symptoms of Covid- 19 infection are fever and dry cough, while some experience headache, sore throat, fatigue, breathlessness, and other atypical symptoms such as muscle pain, confusion, diarrhea, and vomiting have also been reported, lately [5] There are higher possibilities of increased number of undiagnosed cases undiagnosed cases, as most patients present very mild symptoms that closely resembles seasonal allergies and common flu.

Population at risk

In general, old aged people and medically compromised individuals with conditions like, diabetes, hypertension, cardiovascular/ respiratory distress or immunosuppression are at greater risk of infection [6].

Occupation at risk

Although, this pandemic has badly hit all the trade and businesses globally, still the frontline Covid- 19 warriors are those engaged in delivering essential services, health facilities, sanitary workers and those involved in transportation. Health care workers are at the greatest risk, as they encounter diseases and infections daily and work in close proximity to one another and infected patients. Among all non-health care & health care occupation, dental professionals remained at greatest risk of exposing to coronavirus. Fig.1, shows that dentists are most often exposed to coronavirus, also they were the ones in the closest proximity to their patients.

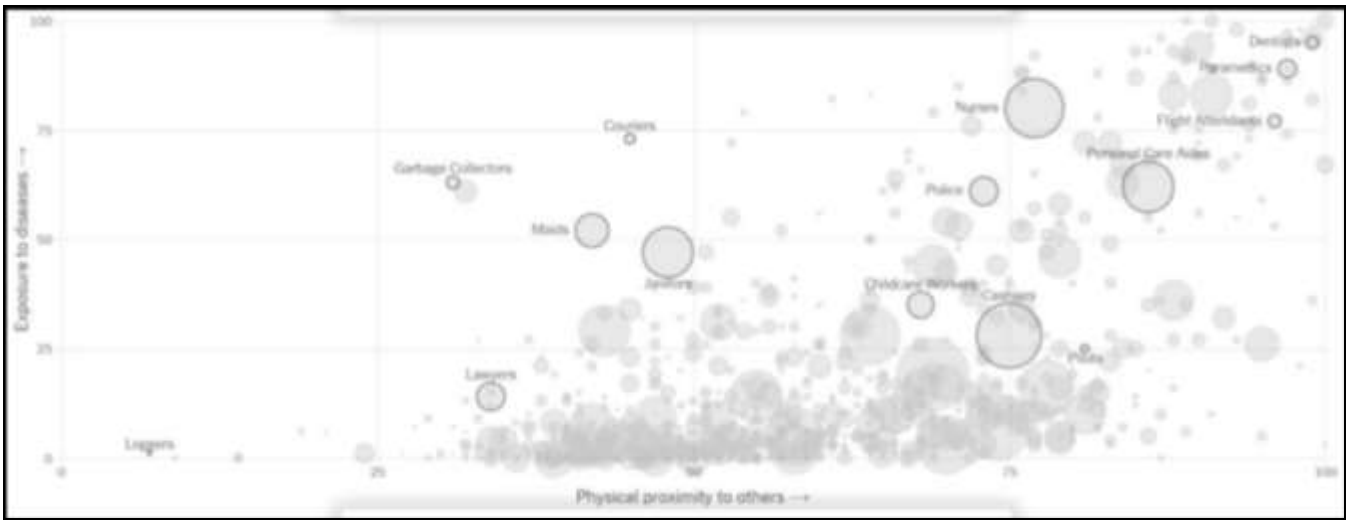

Fig 1: Workers who face the greatest risk of coronavirus infection.

Reported by New York Times, 15 March, 2020

- Guidelines for basic preventive measures to be taken at the workplace were issued in public interest by Ministry of Health & family welfare, Government of India. These include [7]
- Social distancing at least 1 meter to be followed, all the time.
- Mandatory use of face cover or mask
- Practice frequent hand washing (for at least 40-60 seconds) even when hands are not visibly dirty and use of alcohol- based hand sanitizers (for at least 20 seconds).
- Respiratory etiquettes to be strictly followed, for example - covering one's mouth and nose while coughing/sneezing with a tissue/handkerchief/flexed elbow and disposing off used tissues properly.
- Self-monitoring of health by all and reporting any illness at the earliest.
- Mandatory use of Aarogya Setu mobile application by every individual.

Face mask to the rescue in COVID-19 era

The Mask-wearing can be effective in the containment of communicable diseases and has thus become a new normal in many societies in the COVID-19 pandemic.

a) Household made cloth mask: The CDC recommends wearing a cloth face covering (such as a homemade mask or scarf) when in public places where it's difficult to maintain social distancing. However, home-made cotton masks are not effective against filtered SARS–CoV-2 during coughs by infected patients [8].

b) Surgical mask: According to the FDA, a surgical mask is a loose-fitting, disposable device that creates a physical barrier between the mouth and nose of the wearer and potential contaminants in the immediate environment. Surgical masks did not exhibit adequate filter performance against aerosols measuring 0.9, 2.0, and 3.1 μm in diameter.[9] Lee and colleagues showed that particles 0.04 to 0.2 μm can penetrate surgical masks [10].

c) N95 Respirators: The N95 respirator is the commonly used in industrial and health care environments. N95 respirators made by different companies were found to have different filtration efficiencies for the most penetrating particle size (0.1 to 0.3 micron) [11].

Covid – 19 Impact on Pediatric Dentistry

The dentistry is adversely affected by the advent of this global pandemic. With the rapid increase in the spread of the COVID-19, there has been an apprehension in the patients and parents of children for visiting the dental clinic for ongoing dental treatment or elective dental treatment. Thus, it is a challenge for dental professionals to deliver dental care to the patients effectively and efficiently amid COVID-19 pandemic. But what is more challenging in this time of crisis is, management and treatment of small children and those with special health care needs.

Pre – appointment mailing

Behaviour modification through pre-appointment mailing is not new in pediatric dentistry. In pre- Covid times, dentist used to obtain personal information from the parents about their child which includes, child's nickname, likes dislikes, their favorite toy, favorite food, favorite activity & place.

The COVID-19 has made behavior modification complicated as the dental surgeon's personal protection equipment is an obstacle in establishing good doctor patient relationship, as far as the pediatric patients are concerned. Therefore, pre-appointment introduction of the child to the pediatric dental surgeon would be beneficial for both dentist and child. This can be done by sending a small introductory video of the dental operatory, dental personnel and dental surgeon wearing the PPE kit (Fig.2) through whatsapp, so that child would become familiar with the environment in dental clinic, also it would be easier for pediatric dentist to instill a positive behavior in the child on dental chair, achieving patient cooperation, thus reducing dental anxiety and fear of closeness with the stranger.

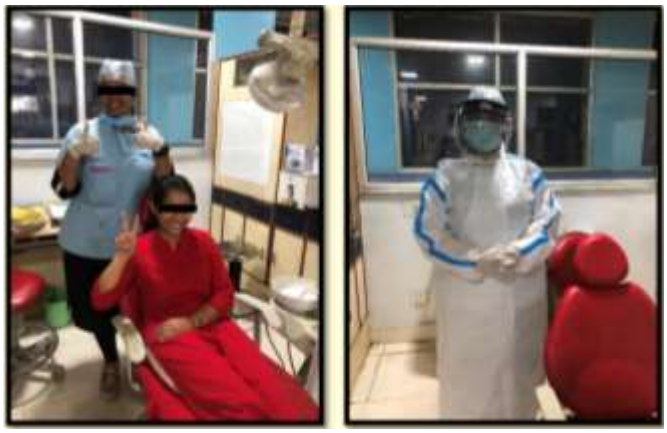

Fig 2: Dentistry in Pre-Covid era and during Covid Pandemic

Tele dentistry to address the gaps

Covid – 19 pandemic has an alternative modality; one such is Tele-dentistry or teleconsultation. Tele dentistry has experienced a boom during this pandemic as it connected disadvantaged and homebound patients with the doctor to address lack of access during and after the pandemic [12] The American Academy of Pediatric Dentistry recommends, pre-screening of the health status of the child a day before the appointment via call, if at all parents report fever, cough or any other symptoms of common flu in child, appointment should be re-scheduled.

Standard precautions

It is important to realize that, even during pre-COVID-19, it was the part of routine practice for all dental professionals to obtain medical history, record vital signs and follow infection control protocol for every patient.

Regardless of suspected or confirmed infectious disease, the standard precautions apply to all the patients. The Centre for disease control and prevention has recommended to postpone all elective medical & dental procedure until resolution of illness of the patient.[13] However, while planning any invasive dental surgical procedure, patient should be tested for Covid – 19.

Dental appointment

Guidelines given by Ministry of Health and Family welfare, Government of India dated 19 May, 20207, stated that only emergency procedures should be allowed in the dental operatory and all the routine and elective dental procedures should be postponed. Centre for Disease control however stated that, emergency dental care to a confirmed/suspected COVID-19 patient if warranted medically, should be provided in a dental or hospital setup with adequate airborne precautions only (negative pressure and N95 mask). Underlying Table 1 outlines the most common acute dental conditions such as acute pulp and periapical diseases, acute periodontal disease and certain traumatic injuries and its management. Table 2 depicts recommendations for specific modifications to be adapted to deliver dental care to patients in different specialities of dentistry.

Table 1: Management of Acute Dental conditions during COVID-19 Pandemic

Dental Conditions	Teleconsultation	Urgent care	Emergency care
Acute apical abscess Acute periodontal abscess/ Periorodontal lesions	• Prescribe analgesics. • Advise antibiotics if there are signs of systemic infection (fever, malaise). •Ask the patient to call back after 48–72 h.	• If the symptoms do not resolve or if the infection is spreading without airway compromise: Incision and Drainage/ Extraction.	• If the patient has spreading infection with or likely to have airway compromise and/or severe trismus refer for emergency care to designated centre.
Acute pericoronitis	• Prescribe analgesics. • Recommend chlorhexidine mouthwash/gel or warm saline rinsing. • Advise antibiotics if there are signs of systemic infection (fever, malaise). •Ask the patient to call back after 48–72 h.	• If the symptoms do not resolve or if the infection is spreading without airway compromise extraction of offending tooth.	• If the patient has spreading infection with or likely to have airway compromise and/or severe trismus refer for emergency care to designated centre.
Symptomatic reversible pulpitis	• Prescribe analgesics. • Advise patient to avoid hot and cold food. • Advise patient to call back if symptoms worsen.		
Irreversible pulpitis	• Prescribe analgesics. • Advise patient to call back if symptoms worsen.	• Local anesthesia with 2% lidocaine and 1: 100000 epinephrine. • Dental dam isolation + high volume evacuation. • Chemomechanical caries excavation (caridex +spoon excavator / slow speed micromotor without water spray). • Partial / complete pulpotomy. • Temporary restoration or Extraction.	
Dry socket	• Prescribe analgesics. • Recommend warm saltwater gargling. • Do not prescribe antibiotics unless there are signs of spreading infection, systemic infection, or for an immunocompromised patient. • Advise patient not to spit or rinse.	• If pain is severe and uncontrollable, obtundent dressing is advocated.	
Post-extraction hemorrhage	• Patient should be advised to bite firmly on moistened cotton roll/ gauze swab placed over the socket for 20 min before checking whether the bleeding has stopped; repeat once if necessary. • Avoid drinking alcohol, smoking, or exercising for 24 h to avoid disturbing the blood clot.	• If the bleeding fails to stop, but is not brisk and persistent local measures like suturing, use of styptics, and antifibrinolytic agents.	• If the bleeding fails to stop and is brisk and persistent, refer for emergency care to designated centre.
Avulsed, luxated, or fractured teeth		• Replantation of tooth and follow pain management guidelines and protocol suggested by International Association of Dental Traumatology (IADT).	

Table 2: Practice modifications for different dental specialties

NO.	SPECIALTY	PROCEDURES	
		Allowed	Not allowed
1	Periodontics	Management of gingival/periodontal/ pericoronal abscess. Management of ulcerative/ desquamative lesions. Management of food impaction / coronoplasty of plunger cusps. Topical application of desensitizing agent. Cauterization of periodontal pocket/ pericoronal flap/polyp polyp.	Use of ultrasonic scaler/ micromotor/ airotor. Surgical/laser excision of gingival overgrowth. Scaling and root planing. Planned periodontal surgery and implant surgery.
2	Oral Pathology	Hemogram for emergency dental extractions.	Hemogram for elective surgical procedures.
3	Prosthodontics	Minor adjustment/occlusal equilibration in the existing complete/partial denture. Removal of crown/fractured segment of prosthesis. Recementation of dislodged crown / bridge. Removable complete/partial denture insertion.	Biomechanical tooth preparation for receiving crown/bridge. Placement/removal of dental implant. Impression making for removable/ fixed prosthesis. Removal of faulty prosthesis/ complicated crown/bridge.
4	Oral medicine and radiology	Medicinal treatment of oral precancerous lesions	Intraoral periapical radiographs. Extraoral radiographs and cone-beam computed tomography except in case of emergency.
5	Conservative and endodontics	Caries hand excavation and dressing. Glass ionomer restoration in cervical abrasion. Emergency root canal opening if swelling/abscess/pain in tooth. Recementation of inlay.	Airotor/Aerosol use for any procedure except emergency RCO. Surgical endodontics. Ultrasonic use in endodontics.
6	Orthodontics	Hanging or dislodged molar tube or dislodgement of appliance/ components. Wire pocking or any other component of fixed appliance injuring soft tissue. TPA, TADs, and Class II correctors which are likely to be ingested or inhaled.	Use of micromotor/airotor. Removal of any residual composite from debonded enamel. Bracket bonding, change of wires, E-chains, modules. Broken removable appliances.
7	Pedodontics	Severe dental pain/pulpitis in mixed dentition. Management of acute dentofacial trauma. Management cleft lip and palate. Management of cellulitis/facial swelling.	Airotor/Aerosol use for any procedure except emergency. Root Canal Openings. Elective surgical procedures.
8	Oral and maxillofacial surgery	Suturing of bleeding wounds. Incision and drainage of severe space infections. Emergency extraction of tooth. Correction of acute TMJ dislocation. Conservative management of fracture.	Definitive management of soft and hard tissue trauma. Mild and moderate space infections. Planned tooth extraction/impacted tooth. Biopsy/wire, suture material/bone plate removal. TMJ/Orthognathic/Pathology/Dental Implant surgery.

Social Distancing in the waiting area

Barring a monumental breakthrough, social distancing is the new normal in the dental office. To minimize the number of patients in the waiting area, one patient – one room policy should be followed; the clinician shall ask the patient to report only via confirmed appointment on call, message, or email. Only one parent should be allowed to accompany the child patient in the waiting area. Space scheduled appointments [14] for approximately, 30-40 minutes are necessary to maintain physical social distancing of at least 1 meter in the waiting area. Advisory (set of instructions) to be followed during dental appointment in the operatory and the waiting area, for the patients and parents/ caregiver should be formulated and sent through WhatsApp along with the appointment reminder

to ensure safety of the patients, parents and dental staff.

Hand hygiene for patient, parent & dental auxiliary

Proper hand hygiene is critical in disintegrating SARS-CoV-2, therefore patient & accompanying parent should be instructed to perform strict hand hygiene protocol with soap or 60- 80% alcohol- based sanitizer or hand rub while entering the dental operatory and again after the dental procedure [15], as recommended by the Centre for Disease Control. Display posters or flyers in the dental operatory and waiting area, instructing patients, staff and accompanying parent (1) to perform hand hygiene and (2) to sneeze or cough into the elbow or tissue, and safely dispose the tissue immediately into the bin, preferably the one with the lid.

Prior to treatment procedure, this hand hygiene should be performed by dental personnel assisting in the procedure, as recommended by "World Health Organisation's (WHO) [5] Moments" [16] (Fig.3).

Fig 3: "5 Moments" by WHO

Protection of oral health care personnel and patients during treatment

1. Personal Protection equipment (PPE)

Personal protection equipment kit is essential so as to maintain a barrier while interacting with the patient or performing any dental procedure. Ensure that dental personnel are trained to use appropriate PPE, following risk assessment and standard precautions: impervious gown, eye protection, face mask, disposable cap, face shield and shoe cover (Fig.4) which should be donned before entering the dental operator.

Fig 4: Personal protection equipment kit

A common practice observed among dentists is removal of face mask while interacting with the patients, however this should be strictly avoided under any circumstances. The United States National Institute for Occupational safety & Health has classified particulate filtering respirator into three, namely: [17] Category N – not resistant to oil (N95, N99, N100).

Category R- somewhat resistant to oil (R95, R99, R100)

Category P – strongly resistant to oil (P95, P99, P100)

Table-3 depicts the recommendations for use of PPE kit for dental staff [5].

Table 3: Recommended use of PPE kit for dental staff

Setting	Risk	Recommended PPE	Remarks
Help desk/Registration counter	Mild	Triple-layered mask and latex examination gloves.	Physical distancing to be followed at all times.
Dentist/auxiliary staff	Examination only	Three-layered mask, protective eyewear/face shield, and gloves.	
	Moderate risk	N-95 mask, protective eyewear/face-shield, gloves, and surgical gown.	Nonaerosol procedures.
	High and very high-risk procedures	N-95 mask, protective eyewear/face-shield, gloves, and coverall.	Aerosol generating procedures.

Dental personnel undertaking or assisting in the procedure must be well trained about proper use, and removal of PPE to prevent self-contamination [14].

2. Pre procedural patient preparation

Patient should be draped with single use or disposable plastic gown, preferably. Pre procedural use of 1% hydrogen peroxide or 0.1% povidone iodine mouth rinse can reduce

salivary bacterial load.18 various studies have concluded the infectivity of chlorhexidine rinse against Covid – 19 virus.19

3. Radiographs

During diagnosis, radiological investigations should be performed with extreme care. Since intra oral radiographs stimulate saliva and coughing, extra oral radiographs should be carried out, such as panoramic radiographs, cone beam computed topography [20].

4. Rubber Dam isolation

During dental procedures, dental dam (Fig.5) isolation is an ideal and effective method that provides barrier protection from primary source and virtually eliminate all pathogens emerging from respiratory secretion. However, it is also effective in reduction of aerosol production and particle spread, hence should be utilized for any procedure wherever feasible.21 Application of rubber dam during cavity preparation showed a significant reduction in the spread of microorganisms by 90% [22].

Fig 5: Rubber Dam isolation

Aerosol generating procedures in dental setting – Risk & prevention

Certain dental procedures like, oral prophylaxis, restoration or crowns preparations are performed using high-speed handpiece which require water coolant in order to dissipate heat produced by the handpiece to avoid damage to the dental tissues and pathological changes in the dental pulp. However, this water coolant generates aerosol (Fig.6). Bioaerosol are created when aerosols are combined with fluids of the oral cavity like blood or saliva. These aerosols are contaminated by various microorganisms and have the potential to remain suspended in the air for considerable amount of time and are inhaled by dentist and patients [23].

Fig 6: Aerosol generated by (a) High Speed handpiece

(b) Ultrasonic scaler (c) air-water syringe

Therefore, it is mandatory to use high volume suction and good ventilation in the operatory. The American Dental Association, recommends use of high-volume evacuation suction, capable of removing up to 100 cubic feet of air per minute as they are effective in removal of droplets at the site in the oral cavity and reducing aerosolization in operatory in an effort to reduce viral spread [24].

Also, the use of pre-procedural mouth rinse using chlorhexidine mouthwash or betadine mouthwash should be taken into consideration. However, to prevent coronavirus transmission in the dental set up, aerosol generating procedure should be replaced by minimally invasive dentistry procedures. Under any unavoidable circumstances, four handed dentistry [14] should be preferred using all the hand hygiene protocols and personal protection equipment kit by the dentist as well as assistant.

Drill free dentistry – a boon for dentistry in Covid -19 era

Advances in materials, instrumentation and techniques have shift the paradigm towards minimally invasive dental procedures. The minimally invasive dentistry was pioneered in early 1970s with the focus on prevention, remineralization of dental caries and minimizing dental interventions. Lesser we did know; this drill-free dental approach will appear as a blessing in disguise in oral health care during this time of Covid -19 pandemic. Various minimally invasive dentistry procedures, instrumentation techniques and materials enlisted below can aid in delivering dental care to children amid Covid -19 pandemic.

- **Non instrumental endodontics or Lesion Sterilization & Tissue Repair (LSTR) [25] -** The lesion sterilization and tissue repair (LSTR) technique was developed by the Cariology Research Unit of Niigata University School of Dentistry, Japan. This technique uses a combination of antibiotics at the exposure site to sterilize the endodontic lesion[26]. Since excessive instrumentation of root canals leads to inadvertent removal of tooth structure, this Non-Instrumental Endodontic Techniue or LSTR leads o preservation of tooth structure. The LSTR therapy aims to eliminate causative bacteria from lesions, and after sterilization, the lesions are repaired or regenerated by the host's natural tissue recovery process and is simple, painless, time-saving, and lessens physical and mental burden for patients.
- **Remineralising agents –** There are diverse number of re-mineralizing agents available which can be prescribed to children with caries risk. These include, fluoride preparations, non-fluoridated agents like amorphous calcium phosphate, CPP-ACP, xylitol, Enamelon, Novamin etc. These agents are available in the form of mints, gums, chewable tablets and in the form of pastes or creams (Fig.7), they possess anti cariogenic properties, hence, enhancing re-mineralization of initial caries lesion [27].

Fig 7: Re-mineralizing toothpaste

- **Silver Diamine Fluoride –** It is a safe and effective non-restorative treatment option available, that aids in caries

arrest (Fig.8) and eliminating reversible pulpitis pain. It is also known as "silver bullet" or "magic bullet", it has anti-bacterial, anti- hypersensitivity properties.

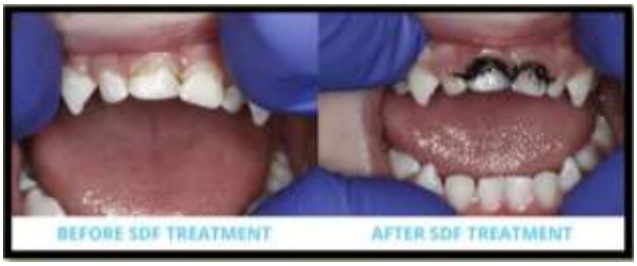

Fig 8: SDF treated teeth

- **Resin infiltration –** Caries infiltration is a novel technique that bridges a gap between prevention and restoration through filling [28] the cavitated defect. Infiltration technique is a single visit procedure that eliminates the need of local anesthesia and cavity preparation.
- **Chemo-mechanical cavity preparation –** It is an alternative caries removal method, which makes use of chemical removal of infected dentine [29]. The tooth is treated using hand excavation and application of gel. Carisolv and apacarie are among few commercially available chemo mechanical cavity preparation agents (Fig.9) The technique requires no use of local anesthesia and hand piece.

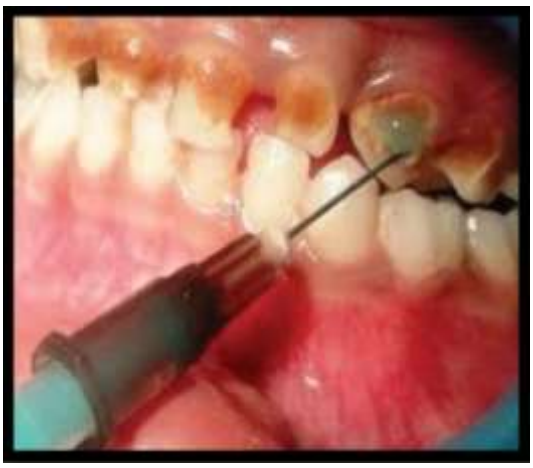

Fig 9: Chemo-mechanical caries removal

- **Atraumatic restoration technique –** It works on two principles, one is, excavation of caries using hand instruments only i.e spoon excavator and; secondly, restoration of cavity using material that stick to the cavity such as Glass ionomer cement.
- **Halls technique –** Halls technique is recommended for primary molars especially with class carious lesion. After, infected caries removal through spoon excavator the cavity is sealed using glass ionomer cement and covered restored using preformed, pre crimped & pre contoured stainless steel crowns. Various studies have concluded high success rate of restoration of occluso-proximal lesions in primary molars using halls technique, in comparison to conventional restorative materials [30].
- **Use of lasers -** Based on development in adhesive dentistry and the propagation of minimum intervention principles, lasers may revolutionize cavity design and preparation. 3 wavelengths are available for clinical use in hard dental tissue management. These include, (1) Erbium:yttrium-aluminum-garnet Er: YAG (λ =2.94μm) (2) Erbium- chromium:yttrium-scandium - gadolinium-garnet Er,Cr: YSGG, (λ = 78μm). (3) Er:YSGG (λ =2.79μm). Lasers are found to be effective in cavity preparation, caries removal, restoration removal, etching and treatment of dentinal sensitivity, caries prevention and bleaching [31].

Disinfection of the clinic setting in between patients

In accordance with standardised operating procedure, one cycle of cleaning and disinfection should be carried out in the treatment area, after every patient to eliminate the risk of Covid -19 infection transmission.

- High touch surfaces such as doors, railings, grills, handles, reception desk, phone should be thoroughly scrubbed with a detergent in order to remove organic matter before disinfection.
- All patient-care items (dental instruments, devices, and equipment) must be sterilized after every use.
- Staff performing cleaning and disinfection should wear appropriate PPE.
- Many disinfectants are active against viruses like COVID-19, hence World Health Organisation recommends the use of [14]
- 70% ethyl alcohol for disinfecting small surface areas and equipment in between uses. For example, dental chair, patient hand rest, dental chair light etc.
- 0.1% sodium hypochlorite is an effective disinfectant for inaminate objects and surface, whereas 0.5% sodium hypochlorite can be used for disinfecting large blood or bodily fluids spills.
- "No touch surface disinfection" technique is beneficial for sanitization and disinfection of dental clinic in between each patient. This fogging5 procedure makes use of 20% w/v hydrogen peroxide solution (stabilized by 0.1% silver nitrate).

Waste management [5]

The infectious medical waste of suspected or confirmed COVID-19 individual should be disposed of in double-layered yellow-coloured bags with gooseneck ligation. The bags should be marked and disposed of in accordance with the Biomedical Waste Management and Handling Rules, 2018.

Conclusion

In the current scenario of epidemiological emergency due to COVID-19, it is necessary to re- evaluate the activities of pediatric dental surgeon, considering the challenges in terms of contagion containment.

- In case of dental emergencies, immediate intervention is required, with the observance of strict environmental infection control and personal protection protocols of the subjects involved, becomes crucial to minimize the risk of cross infection or transmission.
- In future, the end of this Covid -19 pandemic shall mark the beginning of new procedures and management of pediatric dental patient.
- The smart technological systems or techniques such as tele-dentistry or video consultation, that boomed during this time of pandemic, may become the most powerful remote communication tool, mode of education for oral health awareness in children, especially in school age, who are treated in outpatient clinics, hence, boosting and strengthening the approach in pediatric dentistry and the children's motivation for oral health care.

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