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Original Research Article

Safe otorhinological outpatient practices in Indian scenario

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ABSTRACT

Background: The 2019 novel corona virus has created havoc across the world for whole of last year and still doing so with its continuing second and third waves. It is hypothesized that SARS CoV 2 virus can spread by sneezing, coughing, and even talking to close contact (less than 2 meters) in as little time as few minutes.

Materials and Methods: This exercise was done in patients who attended the Otorhinological outpatient department from July 2020 to December 20 in a tertiary care center in Lucknow. A total of 1556 patients were included in this study.

Discussion: Keeping this in mind, after careful discussion we propose a OPD consultation protocol which would not only be useful during this pandemic but even after the peaks have passed and COVID-19 transmission comes down to low levels. This protocol if followed properly would prevent transmission of many such possible infections in future as well.

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1. Introduction

The 2019 novel coronavirus has created havoc across the world for whole of last year and still doing so with its continuing second and third waves. More than one year has passed and COVID 19 spread has global impacted all the aspects of life. It was declared a global pandemic by the world health organization in early 2020. This breakthrough of covid-19 pandemic affected most of the USA, Europe, UK, India, Russia, Brazil, and China with the worst affected being USA and India causing millions of people to lose their life. This pandemic is unlike anything that has been seen in recent history. Initially transmission of SARS CoV-2 virus through bats was given as main way of cross over to humans but soon human to human transmission became the mainstay of spread¹ via droplets up to 2 meters and sometimes beyond.^{2,3} It is hypothesized that SARS CoV 2

virus can spread by sneezing, coughing, and even talking to close contact (less than 2 meters) in as little time as few minutes. These virus particles can stay active in air for 4-5 hours. Spread through fomites has also been sometimes implicated in spread.^{4,5}

Patients with COVID 19 can manifest a wide variety of clinical manifestations ranging from mild symptoms like cough and fever to severe cases resembling severe acute respiratory syndrome(SARS COV2) resulting in fibrosis of lungs.⁶ Many regimens of treatment and many newer experimental drugs from Azithromycin to Ivermectin to Remdesivir have been proposed in treatment of COVID-19 but eventually evidence-based medicine concluded that social distancing, use of mask in crowded places and hand sanitization were the only three most effective methods to break chain of transmission.⁷ Therefore, it becomes important for healthcare personnel to avoid infection through close contact of suspected infected patients and

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fomites.⁵

Healthcare workers of Respiratory Medicine, Otorhinolaryngology and Anesthesia are at high risk of contracting Covid 19 due to direct exposure involvement of aerosols which occurs due to the emergency surgeries, Chest infection, emergency tracheostomy, intubation and nasal surgeries.⁸ Throughout the year there were reports of healthcare professionals losing their lives or getting serious morbidity after contacting COVID-19 from unsuspected patients. Many of these unfortunate losses were otorhinolaryngologists who were working as front-line workers in COVID-19 facilities and were exposed invariably to the virus during duty. Such reports have been received from almost every country and continent. With time it was noted that an important cause of such rapid transmission was presence of asymptomatic carriers.^{6,9} Despite a lot of ongoing research, no clear correlation or consensus has been demonstrated between fomites, potential aerosolization and its association with actual transmission.¹⁰ Therefore, clinicians and healthcare personnel involved directly in patient handling should exercise universal caution rather than only thinking about routes of transmission.

Working during a pandemic varies greatly according to Institute, number and type of population catered, availability of protective resources, funding and the specialty/multispecialty practiced by the healthcare center. Initially there was a lot of chaos over guidelines related to precautions needed to be taken due to acute shortage of protective items in wake of sudden outbreak but soon WHO and CDC issued the recommendations about the use of proper personal protective kit (PPE Kit) with N95 mask with face shield for necessary patient contact and surgical procedure. Since then, the government and ENT organizations across country have formed various guidelines promoting use of ffp2/3 masks and level II PPE for patient consultation and emergency procedures. There are times when patients require emergency treatment in which the chances of getting exposure to the health care worker is more as there are increased chances of not following proper safety precautions. For this it is important for any institution or hospital to make a proper guideline to do an emergency and elective otorhinolaryngology procedures minimizing the risk of infection in the health care worker. So the purpose of the article is to emphasis on the various safety precautions to be taken in OPD and IPD patients.

Keeping this in mind, after careful discussion we propose a OPD consultation protocol which would not only be useful during this pandemic but even after the peaks have passed and COVID-19 transmission comes down to low levels. This protocol if followed properly would prevent transmission of many such possible infections in future as well.

2. Materials and Methods

This exercise was done in patients who attended the Otorhinolaryngological outpatient department from July 2020 to December 20 in a tertiary care center in Lucknow. A total of 1556 patients were included in this study. Out of 6 ENT consultants and 20 healthcare workers working in hospital, 1 surgeon and 2 health care workers were tested positive during study and were promptly quarantined. This was considered a good outcome considering the prevalence of infection in area.

2.1. Advised protocol for ENT

1. *Appointment of patients:* patients who reach hospital without taking prior appointment (walk in patients) except in case of emergency are to be discouraged. Follow up patients are encouraged for teleconsultation/video consultation. Streamlining patient inflow reduces the risk of cross-transmission. Patients with stridor, Airway or GI foreign body(urgent conditions), head and neck cancer, neck space abscess, maxillofacial trauma(semi urgent conditions) are prioritized for physical consultation over other ailments such as GERD, Allergy Nasal obstruction and Chronic otitis media (non-urgent conditions) which can be taken up for teleconsultation.
2. *Patient screening At hospital entry:* Regulation of entry of patients is done by registering patients at the hospital entry and allowing only one attendant with one patient. Posted personnel should ensure maintenance of social distancing protocol as advised by hospital administration. All patients and attendants entering the hospital premises should be screened in a separate area using a questionnaire (details about fever, travel, occupational exposure, any history of contact with address and phone number) and thermal screening by handheld scanner. This is to be done by health care working in full PPE comprising of non-permeable body cover (ffps 2 mask, gloves, and face shield). Screening helps to minimize any suspected patient/attendant entry into the OPD area. Those patients having any suspicion of having covid 19 symptoms would be then shifted to a separate ARDS clinic and evaluated through the standard COVID-19 protocol. Such patients even if having ENT symptoms are not sent to ENT OPD rather a dedicated ENT resident should examine and manage them into the separate ARDS Clinic using PPE.
3. *Patient screening At Ent Opd entry:* Patient and attendants are rechecked by an ENT resident in full PPE using thermal screening and a basic history is taken by the resident and details entered in the hospital OPD prescription and drug dispensing operative system. Waiting room is predefined with

spacing between two seats. The second patient is only allowed inside the consultation room once the first patient has left the OPD with prescription slip. Reception counter is separated from patients with help of a transparent acrylic 3 mm barricade.

4. *Consultation room:* Only the patient is allowed inside the consultation room. Consultation room should be well ventilated and a transparent acrylic barrier in any form should be placed in between patient and consultant. The distance between consultant and patient should be more than 2 meters. Consultant should be covered in full PPE kit (non-permeable gown, shoe covers covering legs, gloves, goggles, or face shield). Oral cavity examination is avoided unless its not avoidable. A zero-degree endoscope is kept connected to a monitor for examining ear and nose, the consultant is encouraged not to use otoscope or nasal speculum in opd consultation. This endoscope is sterilized after every patient. Unless there is urgent need to reevaluate or follow up physically, patients are further encouraged for tele/video consultation.
5. *Endoscopy:* ENT Endoscopy is a high-risk procedure due to direct dealing of nasal /oral passage resulting in generation of droplets. A separate donning and doffing area should be assigned. Endoscopy room is kept well ventilated, and patient is asked to wear a surgical mask with a small hole in front to pass the endoscope minimizing the free flow of droplets into surrounding during endoscopy. The consultant wears in full PPE kit (non-permeable gown, shoe covers covering legs, gloves, goggles, or face shield) during endoscopy. Patient is advised to avoid coughing or sneezing during the procedure. Nose is treated with 0.5% povidone iodine drops 15 minutes before the endoscopy. Xylocaine spray is avoided to reduce aerosol production. Nose is decongested with xylometazoline and adr pack. After endoscopy, endoscope should be well sterilized with 2% glutaraldehyde solution for 30 minutes. In case
6. *Minor procedures:* Procedures like syringing, suctioning is to be avoided until it's an emergency like foreign body ear, maggots, or severe pain in ear due to wax.
7. *Biopsy:* In case of diagnostic biopsies, patients are given xylocaine spray is to be avoided and instead xylocaine lozenges are given to patient for anesthesia. Instruments and biopsy room is to be disinfected properly after the procedure.
8. *Telemedicine:* Telephonic consultation/ video conferencing for patient has emerged as a very helpful way to handle routine patient consultations and follow up during this pandemic. This is strictly for empirical management of patient's complaints and in case of emergency this is not a substitution

of routine physical consultation. Photographs and videos of patient are helpful in keeping follow up of the patient. A digitally signed prescription is to be provided for patient for easy availability of medicines. This prevents excessive load on OPD and emergency services and patient are better followed up and are less apprehensive than not getting consultation at all. This also reduces travel of patients and physical movement of patients reducing transmission chances.

3. Discussion

In context to Covid pandemic, the Indian government implemented a lockdown in a phase wise manner in whole of the country. ENT surgeons along with pulmonologists and critical care experts face the largest risk of contracting the infection due to direct exposure to respiratory system. The lockdown majorly reduced the ENT activities to emergency treatments. In ENT surgeries, the aerosols are generated in large quantities, so it is important to practice the safety measures. The basic general protocols should be followed by everyone but can be modified by institution to institution. These protective measures which are brought into practice during the pandemic should be maintained even after the lockdown has been lifted and cases of COVID-19 come down as there are various emerging new strains of COVID-19 and any relaxation on part of ENT surgeon till the world is finally fully free of the pandemic may result in hazardous outcome. We have formed these clinical practices for ENT consultations to allow the resumption of treatment and prevent delay in management of patients.

Although through extensive media coverage most of the public is aware about basic social distancing norms to prevent COVID-19, but while visiting hospital for various ailments. Depending upon the type of case one getting should be prioritize on emergency, elective and non-emergency case and protocols should be followed according to the same.

Awareness of health care personnel about routes of transmission and protection is of utmost importance in breaking chain of transmission of COVID-19. This should cover topics such as information about virus, routes of spread, signs and symptoms, prevention strategies including social distancing and treatment according to severity. Also, the healthcare personnel must be trained well into handling personal protective equipment (PPE), its proper donning and doffing, disposing the clinical waste safely, handling samples of suspected patients and hand hygiene.

4. Conclusion

Experts warn that corona is going to stay for a while, and we would have to live with it. Semi emergent conditions like Head and Neck malignancies cannot be kept for hold indefinitely and patients cannot be denied consultation or

follow up for a long time. These innovative protocols suggested and successfully implemented by us in our medical setups would surely help otorhinolaryngologists across the country to avoid unprotected exposure to COVID-19 during and after the pandemic as well as prepare them for any upcoming similar scenario.

5. Source of Funding

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6. Conflict of Interest


None.

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