Outpatient vascular clinic management in COVID-19 pandemic

Ann Ital Chir, 2020 91, 4: 345-351
pii: S0003469X20034296
free reading: www.annitalchir.com

Gennaro Quarto*, Andrea Miletti*, Ermenegildo Furino**, Francesca Calemma*, Giovanni Domenico De Palma*, Giacomo Benassai*

**Department of Clinical Medicine and Surgery, "Federico II" University, Naples, Italy – I.A.D. Integrated Activity Department (I.A.D.) of Digestive System Diseases (Dir. Prof. Giovanni D. De Palma)*
*** Emergency-Admission Department Reunited Hospitals Nola, Naples3-South A.S.L, Campania Region, Italy*

Outpatient vascular clinic management in COVID-19 pandemic

INTRODUCTION: *The recent Sars-CoV2 pandemic has dramatically slowed patients' access to our clinic for vascular pathology when the contagion curve peaked. The need to restore the assistance activity has led us to adopt new individual prophylaxis and hygiene measures.*
METHODS: *Doctors and staff must wear dedicated clothes. Mask and gloves are mandatory for patients. A visit is scheduled every 60 minutes to allow the sanitation of the rooms. The day before the visit patients are contacted by telephone for the Covid-19 risk triage. In the presence of symptoms the visit is postponed. In the presence of other risk factors a IgG/IgM Rapid Test for Covid-19 is performed on admission to the clinic. In the presence of fever, if an extraordinary rapid test cannot be performed, the visit must be postponed. Rapid test positive patients cannot be visited: they are placed in solitary confinement at their home waiting for a nasopharyngeal swab for Covid-19. When the rapid test is positive, immediate room sanitation also occurs. The rooms dedicated to the outpatient clinic as well as medical and not medical instruments are disinfected.*
CONCLUSION: *The one adopted can be a useful management model for any type of care activity in order to guarantee the safety of patients and all the staff.*

KEY WORDS: COVID-19, Management, vascular, Outpatient clinic

Introduction

On December 31, 2019, numerous cases of pneumonia of unknown etiology were reported in the city of Wuhan, in the Chinese province of Hubei. The Wuhan Municipal Health Commission (China) has forwarded all data on affected patients to the World Health Organization. On January 9, 2020, China's Center for Disease Control and Prevention announced the identification of a new coronavirus, later called SARS-CoV-2, the aetiologic agent of CoronaVirus Disease 19 (Covid-19), a flu-like syndrome characterized by a severe clinical picture [1-4]. The new Coronavirus 2019 SARS COV2 (Betacoronavirus, Sarbecovirus), is a single-stranded RNA virus, with envelope [5-6]. China quickly published the genomic sequence and it was possible to create a diagnostic test in a timely manner. On 11 March 2020, the World Health Organization assessed that COVID-19 can be characterized as a pandemic [7]. From the beginning of the pandemic until 18 May 2020, there were 4,589,529 confirmed cases and 310,391 deaths worldwide for Covid-19 [8]. Actually (*source* Dashboard WHO European Region, june 27, 2020 hr 10:00 am) there are 10,004,707 confirmed cases and 499,619 deaths, confirming a widespread diffusion of this pandemic. In Italy, the first two confirmed cases are a couple of Chinese tourists, hospitalized on January 29 at the Spallanzani Institute in Rome [9]. On February 18, 2020 in Codogno (Lombardy) the first Italian case of secondary transmission was reported [10]. On June 23 in Italy the total cases of Covid-19 were 239,709 (cumulative cases): 19,573

Pervenuto in Redazione Luglio 2020. Accettato per la pubblicazione Luglio 2020.
Correspondence to: Andrea Miletti, Via G. Bonito 29, Napoli 80129 (e-mail: andreamiletti@gmail.com)

positive, 33542 died (of these 16,579 in Lombardy) and 164,997 recovered. Among the 19,573 currently positive: 17,605 are in home isolation, 1,853 are hospitalized with symptoms and 115 are in intensive care. Regarding these statistics it must be said that from 28 February the number of deceased is confirmed only upon certification by the Istituto Superiore della Sanità, after establishing the cause of death [10]. In Italy 45.8% of patients are male. The median age is 61 years (range 0-100). Lethality increases with age and is higher in male subjects. In 34.3% of cases at least one comorbidity is reported (cardiovascular and respiratory pathologies; type 2 diabetes; immunodeficiencies; neoplasms; obesity; renal failure and other chronic pathologies) [11]. The most common comorbidities observed in positive deceased patients were Hypertension (68.1%), type 2 Diabetes (30.5%), Ischemic Heart Disease (28.2%), Atrial Fibrillation (22.5%), Chronic Renal Failure (20.5%); 59.8% of all deceased had at least three of these comorbidities [12]. Our region, Campania, has distinguished itself for its effectiveness in containing infection. On June 23 there are currently 4634 positive cumulative cases. 431 are the deceased patients [10,13]. The Federico II University Hospital, in Naples, has made a total of 43 beds available to respond to the Covid-19 emergency. 17 beds have been identified in Intensive Care: on May 8 the last Covid-19 patient was discharged [14,15]. Furthermore, the path for pregnant women positive to Covid-19 has been activated, with a specific operating block and Neonatal Intensive Care dedicated beds. There is also a pediatric path, recognized as a regional HUB, for positive children. Work is underway for the construction of 12 beds in the Infectivology ward (in addition to the 8 already available) and 10 intensive/sub intensive care beds. Finally procedures for extending the intensive care have been activated [14].

Public Outpatient Clinic for Vascular Pathology

In our outpatient clinic for vascular pathology, in the Federico II University Hospital in Naples, we deal with various clinical conditions, both arterial and venous. In assisting patients we do visits, medications and Doppler US examinations. The Covid-19 emergency has certainly changed our business. The order n. 16 issued by Campania Region on March 13, 2020, suspended all deferrable and non-urgent care activities until May 4 [16]. We therefore contacted patients who had scheduled check-ups at our clinic in order to select cases that required urgent treatment. We gave priority to the non-deferrable arterial pathology with indication for surgery (aortic aneurysm, symptomatic carotid stenosis and peripheral arterial occlusive disease) and to the dressing of serious trophic skin lesions, such as infected phlebolinfostatic ulcers. In doing so, we adopted security measures that are still basic in our business. Starting from the month of April, we followed the American College of Surgeons guidelines (published on March 24, 2020) for vascular surgery care during Covid-19 pandemic [17] until May 4 (Table I).

Acceptance and Waiting Room

On May 4th, our clinic resumed the ordinary care activity. The day before the visit patients are contacted by telephone for the Covid-19 risk triage (Table II). In the presence of symptoms (Triage Card Part 2), the visit is postponed. If there is a "yes" among the answers in the other fields (Triage Card Part 1), we plan to perform the *IgG/IgM Rapid Test for Covid-19* on admission to the clinic [18, 19]. On the ground floor of the building, where our clinic is located, we have a dedicated path for all patients who must perform the rapid test for Covid-19. It is a separate path from the one that leads to the rooms where the visit will take place. There is an acceptance service too. Patients are selected at the entrance by a security guard who has a list with all the names scheduled for that day. Patients waiting outside the building are each lined up 1 meter apart. It is advisable that they wear gloves and protective masks. The mask is mandatory for everyone: patients, doctors, nurses, secretaries, cleaners and security guards [20,24-26]. A visit is scheduled every 60 minutes to allow the sanitation of the rooms where it took place. Patients are asked to follow the visiting hours that have been communicated to them. No accompanying person is provided for the patient, except in the presence of evident handicaps or minor age. Even an accompanying person is obliged to wear a mask [20]. A nurse will measure the temperature to the patient called by the security guard. If the patient is apyretic he records the visit directly. In the presence of fever, if an extraordinary rapid test cannot be performed, the visit must be postponed. Rapid test positive patients cannot be visited: they are placed in solitary confinement at their home waiting for a nasopharyngeal swab for Covid-19 [21]. When the rapid test is positive, immediate room sanitation also occurs. All the rapid tests results are tracked electronically via the Campania IT platform. The registration of the visit at the reception takes place through the glass. Secretaries also wear a mask. Payment of the commitment would be preferable by credit card, to reduce the exchange of cash. Registered patients who can access the waiting room will be placed at least 1 meter apart (Fig. 1).

Hygienic Standards

The rooms dedicated to the clinic, as well as desks, chairs, shelves, bed, armchairs and instruments are disinfected with hydro-alcoholic gel or solutions containing 75% alcohol (ethanol) or chlorine at 1% [22, 23]. The ultrasound

Table I - *American College of Surgeons – March 24, 2020 - COVID 19: Elective Case Triage Guidelines for Surgical Care – Vascular surgery*

Category	Condition	Tier Class
AAA	Ruptured or symptomatic TAAA or AAA	3 Do not postpone
	Aneurysm associated w/infection or Prosthetic graft infection	3 Do not postpone
	AAA > 6.5 cm	2b Postpone if possible
	TAAA > 6.5 cm	2b Postpone if possible
	AAA < 6.5 cm	1 Postpone
Aneurysm peripheral	Peripheral aneurysm, Symptomatic	3 Do not postpone
	Peripheral aneurysm, Asymptomatic	2a Consider postponing
	Pseudoaneurysm Repair: Not candidate for thrombin injection or	3 Do not postpone
	compression, rapidly expanding, complex	3 Do not postpone
	Symptomatic non-aortic intra-abdominal aneurysm	2a Consider postponing
	Asymptomatic non-aortic intra-abdominal aneurysm	
Aortic Dissection	Acute aortic dissection with rupture or malperfusion	3 Do not postpone
Aortic emergency NOS	AEF with septic/hemorrhagic shock, or signs of impending rupture	3 Do not postpon
Bypass graft complications	Infected arterial prosthesis without overt sepsis, or hemorrhagic shock, or	3 Do not postpone
	impending rupture	2b Postpone if possible
	Revascularization for high grade re-stenosis of previous intervention	1 postpone
	Asymptomatic bypass graft /stent restenosis	
Carotid	Symptomatic Carotid Stenosis: CEA and TCAR	3 Do not postpone
	Asymptomatic carotid artery stenosis	1 Postpone
Dialysis	Thrombosed or nonfunctional dialysis access	3 Do not postpone
	Infected dialysis access	3 Do not postpone
	Fistula Revision for Ulceration	3 Do not postpone
	Renal failure need for dialysis access	3 Do not postpone
	Tunneled Dialysis Catheter	3 Do not postpone
	Fistula Revision for Malfunction/steal	2b Postpone if possible
	Fistulagram for malfunction	2b Postpone if possible
	AV fistula and graft placement for dialysis (ESRD, CK4, and CK5 only)	2a Consider postponing
Mesenteric	Symptomatic acute mesenteric occlusive disease	3 Do not postpone
	Chronic mesenteric ischemia	2b Postpone if possible
PVD	Acute limb ischemia	3 Do not postpone
	Limb Ischemia: Progressive tissue loss, acute limb ischemia, wet gangrene,	3 Do not postpone
	ascending cellulitis	3 Do not postpone
	Fasciotomy for compartment syndrome	2b Postpone if possible
	Peripheral Vascular Disease: Chronic limb threatening ischemia - rest pain or	1 Postpone
	tissue loss	1 Postpone
	Peripheral Angiograms and endovascular therapy for Claudication	
	Surgical Procedures for Claudication	
Thrombolysis	Lysis, Arterial and venous	2b Postpone if possible
TOS	Symptomatic venous TOS with acute occlusion and marked swelling	2b Postpone if possible
	Thoracic Outlet Syndrome, Arterial with thrombosis	2b Postpone if possible
	Thoracic Outlet Syndrome, Neurogenic	1 postpone
	Thoracic Outlet Syndrome, Venous otherwise	2a Consider postponing
Trauma	Traumatic injury with hemorrhage and/or ischemia	3 Do not postpone
Venous	Acute iliofemoral DVT with phlegmasia	3 Do not postpone
	IVC filter placement	2b Postpone if possible
	Massive symptomatic iliofemoral DVT in low risk patient	2b Postpone if possible
	Procedures for Ulcerations secondary to venous disease	2a Consider postponing
	Asymptomatic May Thurner syndrome	1 Postpone
	IVC filter removal	1 Postpone
	Varicose veins, GSV ablations	1 Postpone
Wounds/ Gangrene/ Amputation	Amputations for infection/necrosis (TMA, BKA, AKA)	3 Do not postpone
	Lower extremity disease with non-salvageable limb (amputation)	3 Do not postpone
	Deep Debridement of Surgical wound infection or necrosis	2b Postpone if possible
	Wounds requiring skin grafts	2b Postpone if possible
	Amputations for infection/necrosis (toes)	2b Postpone if possible
Spine	ALIF exposure for Spine team	2a Consider postponing
Other	Surgery/Embolization for uncontrolled bleeding in unstable patients	3 Do not postpone
	Surgery/Embolization for bleeding in stable patients	2b Postpone if possible
	MediPort for immediate infusion needs	2b Postpone if possible
	Port Removal for complication	2b Postpone if possible

Table II: *Covid-19 Triage card for patients called for hospitalization or outpatient services.*

Covid-19 Triage card for patients called for hospitalization or outpatient services

Surname and Name _____
Date and place of birth _____
Residence _____
Phone _____
Name of the person carrying out the triage _____

PART I - Risk Factors	YES	NO
Have you recently been in locations at risk?		
Did you have any contact in the past 10 days with confirmed cases?		
Did you have contacts with people returning from high risk areas?		
Did you have contact with family members of suspicious or confirmed cases?		
PART II - Symptoms in the past 10 days	YES	NO
Did you have a fever?		
Did you have a cough?		
Did you have respiratory problems?		
Did you have a sore throat?		
Did you have muscle or joint pain?		
Did you have vomiting or diarrhea?		
Did you have any sense of smell or taste?		

PART III – Temperature and Rapid Test			
Temperature	_____°C		
IgG/IgM Rapid Test for Covid-19	Negative	IgM	IgG

Date and Time _____

Signature of the person carrying out the triage _____

Fig. 1: Waiting room and Acceptance.

probes are disinfected with gauzes soaked in 70% isopropyl alcohol. The rooms dedicated to the reception and waiting room are also sanitized, as well as the room in which the Covid-19 rapid tests are performed. These procedures take place several times during the day: before the visits begin, between one visit and the next, and at the end of the day. All rooms are also adequately ventilated. Outside the rooms dedicated to the clinic there is a dispenser through which patients can sanitize their hands with alcohol solution.

Indications for doctors

Doctors and staff must wear dedicated clothes. In our clinic we wear surgical uniforms and specific shoes. Before each visit we wear a disposable water repellent gown above the uniform, and single-use shoe covers. The surgical mask may be indicated for procedures and visits that require less close contact with the patient [26,27]. We prefer to wear FFP2 masks without valve during wound medications and Doppler US tests (especially for the supra-aortic trunks examination). Before each visit, the doctor washes his hands, sanitizes them with a hydro-alcoholic gel or solution and then puts on new gloves [24]. We do not wear rings, bracelets or watches. During the visits we also wear face-shield/visor [28, 29] (Fig. 2). Alternatively, at least protective glasses should be worn. When it is necessary to make medications, the trolley is prepared before the patient enters the room, as soon as the procedure for sanitizing the surgery is completed (Fig. 3). Once the patient has entered the room, the anamnesis is collected without adopting particular distances: the physical examination would in any case nullify the distancing. The Doppler US examination is carried out in a dedicated room for which the same hygiene rules, already illustrated above, must be applied. It is important that the probes are always sanitized together with the other elements of the environment between one visit and another.

Fig. 2: Surgical uniform, glows, dedicated shoes, FFP2 mask, water repellent gown above the uniform, single-use shoe covers and face-shield.

Fig. 3: Medications Trolley.

Conclusions

The individual prophylaxis and safety measures that we adopted in order to guarantee the ordinary activity of our outpatient vascular pathology clinic, during the pandemic, we believe can be a useful management model for any type of care activity. For this model to work, a multidisciplinary responsibility of all the professionals involved is necessary. It is important that patients are also instructed on the correct behaviors to adopt. Finally, it is necessary that both personal protective equipment (PPE) and rapid tests for Covid-19 are available in adequate numbers, especially in cases where the extraordinary performance of not programmed tests is necessary.

Riassunto

La recente pandemia da SARS-CoV2 ha complicato l'accesso dei pazienti presso il nostro Ambulatorio di Patologia Vascolare, specialmente durante i giorni in cui la curva di contagio raggiungeva il picco. La necessità di fornire un'adeguata attività assistenziale ci ha spinti ad adottare una serie di misure igieniche e di profilassi che riteniamo possano essere d'esempio nella gestione di qualsiasi tipo di ambulatorio durante un pandemia. I medici ed il personale devono indossare abiti dedicati e dispositivi di protezione individuali. Mascherina chirurgica e guanti sono obbligatori anche per i pazienti. All'ingresso viene misurata la temperatura a tutti i soggetti che accedono presso la struttura. Sono previsti percorsi differenti. Vi è una zona-filtro con la sala d'attesa ed altre stanze, ed una via specifica che conduce agli ambulatori. Sono disposti numerosi erogatori di gel idro-alcolico per la dis-

infezione delle mani. Una visita è programmata ogni 60 minuti per consentire la sanificazione degli ambienti. Il giorno prima della visita i pazienti vengono contattati telefonicamente per la valutazione del rischio Covid-19. Esiste una scheda di triage dedicata. In presenza di sintomi la visita viene rimandata. Se esistono altri fattori di rischio viene eseguito un test rapido IgG/IgM per Covid-19 al momento dell'accesso. In presenza di febbre, se non è possibile eseguire un test rapido straordinario, la visita deve essere rimandata. I pazienti positivi al test rapido non possono essere visitati: sono posti in isolamento in domiciliare in attesa di un tampone nasofaringeo per Covid-19. Quando il test rapido è positivo avviene la sanificazione immediata delle stanze in cui è sostato il paziente. Gli ambienti dedicati all'ambulatorio e gli strumenti vengono disinfettati tra una visita e l'altra. L'adozione rigorosa di tutte queste misure riteniamo sia la chiave per garantire un'adeguata assistenza sanitaria evitando che i pazienti ed il personale siano esposti al rischio di contagio.

References

1. Wang C, Horby PW, Hayden FG, Gao GF: A *novel coronavirus outbreak of global health concern*. Lancet 2020; 395: 470–73.

2. Huang C, Wang Y, Li X, et al.: *Clinical features of patientsinfected with 2019 novel coronavirus in Wuhan, China*. Lancet, 2020; 395: 497-506.

3. Zou L, Ruan F, Huang M, et al.: *SARS-CoV-2 viral load in upper respiratory specimens of infected patients*. N Engl Journ Med,2020; 382: 1177-179. https://doi.org/ 10.1056/ NEJMc 2001737.

4. Naming the coronavirus disease (COVID-19) and the virus that causes it. [cited 2020 Mar 21]. Available at: https://www.who.int /emergencies/diseases/ novel-coronavirus-2019/technical-guidance/ namingthe-coronavirus-disease-(covid-2019)-and-the-virusthatcauses-it. [Accessed: Mar 23, 2020]

5. Livingston E, Bucher K, Rekito A: *Coronavirus disease 2019 and influenza. Journal of the American Medical Association 2020;* [Epub ahead of print]. https://doi.org/10.1001/jama.2020.2633.

6. Zhou P, Yang XL, Wang XG, Hu B, Zhang L, Zhang W, et al.: *A pneumonia outbreak associated with a new coronavirus of probable bat origin*. Nature, 2020; 579:270-73.

7. WHO: *Director-General's opening remarks at the media briefing on COVID 19 - 11 March 2020 https:// www.who.int/ dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19-11-march-2020.* Health Emergency Dashboard, June 27, 09.33 am

8. Giovanetti M, Benvenuto D, Angeletti S, Ciccozzi M: *The first two cases of 2019-nCoV in Italy: Where they come from?* J Med Virol. 2020; 92:518–21. https://doi.org/10.1002/jmv.25699. Dipartimento Protezione Civile. *La situazione in Italia: 23 Giugno 2020, ore 18.00 http://www.salute.gov.it/portale/nuovocoronavirus*

9. Riccard F, I Andrianou X, Bella A, A Del Manso M, Urdiales AM, et al.: I*.S.S. Epidemia COVID19 in Italy - Report based on available data on June 23rd , 2020* https://www.epicentro.iss.it/coronavirus/bollettino/Bollettino-sorveglianza-integrata-COVID-19_23-giugno-2020.pdf

10. Palmieri L, Andrianou X, Barbario PFl, Bella A, Bellino S, Benelli E, et al.: *I.S.S. Characteristics of SARS-CoV-2 patients dying in Italy - Report based on available data on June 23rd, 2020 - SARS-CoV-2 Surveillance Group - https://www.epicentro.iss.it/coronavirus/sars-cov-*2-decessi-italia.*http://www.regione. campania.it/assets/ documents/ agg-23062020-1700.pdf*

11. *Area comunicazione policlinico Unina AOU Federico II http://areacomunicazione.policlinico.unina.it/37490-limpegno-del-policlinico-federico-ii-nella-lotta-al-covid-19/ policlinico Unina AOU Federico II https://www.facebook.com/photo/?fbid=1324624 777708246 &set= a.509827849187947 -* Ordinanza n. 16 – *13/03/2020 - http://www.regione.campania.it/assets/documents/ord-n-16-13-03-2020.pdf*

12. American College of Surgeons - Covid- 19: *Elective Case Triage Guidelines for Surgical Care – Vascular Surgery* https://www.facs.org/covid-19/clinical-guidance/elective-case/vascular-surgery

13. Hoffman T, Nissen K, Krambrich J, et al.: *Evaluation of a COVID-19 IgM and IgG rapid test; an efficient tool for assessment of past exposure to SARS-CoV-2.* Infect Ecol Epidemiol. 2020;10(1):1754538. Published 2020 Apr 14. doi:10.1080/ 20008686.2020.1754538

14. Li Z, Yi Y, Luo X, et al.: *Development and clinical application of a rapid IgM-IgG combined antibody test for SARS-CoV-2 infection diagnosis* [published online ahead of print, 2020 Feb 27]. J Med Virol., 2020; 10.1002/jmv.25727. doi:10.1002/jmv.25727

15. Regione Campania Ordinanza numero 41: *01/05/2020 :http:// www.regione.campania.it/assets/documents/ordinanza-n-41-del-1-maggio-2020-con-allegato.pdf*

16. Regione Campania – Protocollo test rapidi Covid-19: *http:// www.regione.campania.it/assets/documents/protocollo-test-rapidi.pdf*

17. Wang J, Feng H, Zhang S, et al.: *SARS-CoV-2 RNA detection of hospital isolation wards hygiene monitoring during the Coronavirus Disease 2019 outbreak in a Chinese hospital*. Int J Infect Dis, 2020; 94:103-06. doi:10.1016/j.ijid.2020.04.024

18. Kratzel A, Todt D, V'kovski P, et al.: *Inactivation of Severe Acute Respiratory Syndrome Coronavirus 2 by WHO-Recommended Hand Rub Formulations and Alcohols* [published online ahead of print, 2020 Apr 13]. Emerg Infect Dis. 2020; 26(7):10.3201/ eid2607.200915. doi:10.3201/eid2607.200915

19. Ma QX, Shan H, Zhang HL, Li GM, Yang RM, Chen JM: *Potential utilities of mask-wearing and instant hand hygiene for fighting SARS-CoV-2* [published online ahead of print, 2020 Mar 31]. *J Med Virol*. 2020;10.1002/jmv.25805. doi:10.1002/jmv.25805

20. Liu X, Zhang S: *COVID-19: Face masks and human-to-human transmission* [published online ahead of print, 2020 Mar 29]. *Influenza Other Respir Viruses*. 2020;10.1111/irv.12740. doi: 10.1111/irv.12740

21. Feng S, Shen C, Xia N, Song W, Fan M, Cowling B: *Rational use of face masks in the COVID-19 pandemic*. Lancet Respir Med, 2020; 8(5):434-36. doi:10.1016/S2213-2600(20)30134-X

22. Bartoszko JJ, Farooqi MAM, Alhazzani W, Loeb M: *Medical masks vs N95 respirators for preventing COVID-19 in healthcare workers: A systematic review and meta-analysis of randomized trials* [pub-

lished online ahead of print, 2020 Apr 4]. *Influenza Other* Respir Viruses. 2020; 10.1111/irv.12745. doi:10.1111/irv.12745

23. Khan MM, Parab SR: *Simple Economical Solution for Personal Protection Equipment (Face Mask/Shield) for Health Care Staff During COVID 19* [published online ahead of print, 2020 Apr 27]. Indian J Otolaryngol Head Neck Surg, 2020; 1-5. doi:10.1007/s12070-020-01863-4

24. Khan MM, Parab SR: *Safety Guidelines for Sterility of Face Shields During COVID 19 Pandemic* [published online ahead of print, 2020 Apr 30]. Indian J Otolaryngol Head Neck Surg, 2020; 1 2. doi:10.1007/s12070-020-01865-2