

Otorhinolaryngology services at a district hospital in Sabah, Malaysia during the COVID-19 Pandemic

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INTRODUCTION

The SARS-CoV-2 Virus, commonly referred to as the COVID 19 virus has transformed the way we live our lives. Ever since it was first detected in the city of Wuhan, China at the end of 2019, this virus has spread across the globe, with 107 million confirmed cases and 2.36 million deaths at the time of writing.¹ This number continues to increase on a daily basis. It is on course to become one of the worst respiratory virus related pandemics to hit the human populate. Every aspect of our life, from the way we eat at a restaurant, the way we do our groceries, the way we travel and also the way we work has been affected. This article will describe how the pandemic has affected the way the Otorhinolaryngology (ORL) service is managed in a district hospital in East Malaysia.

Tawau district saw a huge number of cases during this outbreak. From March 2020 to August 2020, Hospital Tawau registered 100 COVID admissions, and the next wave from September 2020 to January 2021 saw 5990 admissions.

COVID 19 was first officially declared a pandemic in Malaysia on the 1st of March 2020 with a three month implementation of a complete lockdown termed a movement control order (MCO). The first case of COVID 19 in Sabah was reported in Tawau Hospital on the 12th of March 2020, in a 58 year old gentleman who had previously attended a religious ceremony in Sri Petaling, Kuala Lumpur.² This gentleman also became the first fatality in the state of Sabah. He died on the 20th of March, 8 days after his admission to Hospital Tawau.³ There was a total of 4314 cases nationwide during the first MCO.⁴

Hospital Tawau is classified as a district hospital offering specialist services. The specialities include General Surgery, General Medicine, Obstetrics & Gynaecology, Orthopaedics, Paediatrics, Anaesthesia, Psychiatry, Ophthalmology, Imaging and Diagnostics, Emergency Medicine as well as Otorhinolaryngology. The hospital has 401 beds and is the main referral centre for the South-eastern part of Sabah. As such, it is the point of referral for the cluster hospitals in the region, mainly Hospital Kunak, Hospital Lahad Datu and Hospital Semporna. The Otorhinolaryngology department in Hospital Tawau consisted 2 specialists and 5 medical officers at the time.

COVID in ORL Practice

The common manifestations of COVID are generally ORL related, and they include sore throat, rhinorrhoea, nasal

congestion, hyposmia, anosmia, dyspnoea, and also headaches or dizziness.^{5,6} These presentations tend to render the ORL Department the first point of contact for a potential COVID-19 patient. Also, considering the full clinical examination of a patient with an ORL symptom will involve nasal endoscopy and laryngeal endoscopy, both of which are aerosol generating procedures, it is imperative the ORL surgeon takes proper precautions prior to attending these patients.

Changes in Clinical Practice

The ORL Department in Hospital Tawau at the beginning of the COVID-19 pandemic consisted of two ORL surgeons and five medical officers. Early in 2020, with the increasing number of cases especially in the South-eastern part of Sabah, our hospital personnel quickly became overwhelmed with the requirements for hospital beds and ICU ventilators. A hospital level COVID taskforce was set up on the 12th of March 2020, under the stewardship of the Hospital Director, Physicians as well as the Emergency Physicians. Most departments were requested to release a number of their medical officers to help out with the COVID team as quarantine centres were set up in a community hall and sports centre near the hospital in stages beginning March 2020, during the second wave. The Forensic Department was converted into a fever centre to screen patients for COVID and screening services started on the 12th of March 2020. Eventually we also converted a small portion of the nursing college next door to accommodate the increasing number of patients. Our department loaned out two of our medical officers to the COVID team in March 2020, leaving us with three medical officers and two specialists.

Considering the ORL services would be a potential first port of call for patients with mild COVID Symptoms, we enforced a strict cut down of our total clinic numbers. We only focused on patients with acute and emergency problems as well as cases where malignancy was suspected.

Our clinic protocol included having patients take a mandatory Covid Antigen Rapid Test Kit (RTK) test prior to coming in to the clinic from the month of March 2020. RTK tests were taken at the COVID Screening area at the Emergency Department and patients would usually wait between 90 to 120 minutes for their results prior to coming into the clinic. This RTK test included any persons who were going to accompany the patients in the clinic. We also limited the number of persons who could accompany a

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Clinic and Operating Theatre Statistics

Time Period	Outpatient Clinic Patients	Inpatient Admissions	Elective OT cases	Emergency OT Cases
Jan – Dec 2019 (12 months) Pre-COVID Pandemic	10306	393	231	179
Mar 2020 – Feb 2021 (12 months) COVID Pandemic	3107	344	60	44

patient to one. All consultations were limited to a maximum of 15 minutes per patient and patients were not allowed to remove their masks in the consultation room.

Clinical examinations were performed in the Endoscopy room, which is separate from the consultation room. The Endoscopy room was manned by dedicated Medical Assistants who wore Personal Protective Equipment, including a 3 ply surgical mask, face shield, gowns, as well as gloves for every procedure. Any of the doctors performing scopes also applied to the same personal protection. Endoscopy procedures were reserved for patients with acute or emergent problems and in situations where we needed to assess for presence of malignancy.

Patients with acute ORL symptoms seen in the Emergency Department were attended to with full Personal Protective Equipment and all instruments were disinfected immediately post procedure. Patients who required admission with a RTK or PCR result that was pending was sent to the Severe Acute Respiratory Illness (SARI) ward. The SARI ward was specially created for patients awaiting the results of the COVID test, and once they were clear of COVID, they were admitted to our ward.

Due to the increasing number of beds required to accommodate the COVID patients, all surgical specialities shared one ward and the rest of the wards were allocated to COVID patients. Patients who required Chemotherapy were sent to the Field Hospital which was set up by the Armed Forces of Malaysia, and the field hospital received the first of the non Covid patients on the 22nd October 2020. The field hospital was also used for patients who were stable post-surgery, for example patients with neck abscesses which had been drained, requiring IV antibiotics. Our medical officers would go and review the patients in the field hospital each morning before heading to the main hospital to start the day. The ORL surgeons took turns to be present at the clinic during the pandemic to reduce the risk of COVID transmission. In the event of any contamination it would allow the other specialist to be available to provide on call cover. The number of staff allowed in the clinic pantry was limited to one at a time, and eating meals together was strictly prohibited.

Patients admitted to the ward for emergency procedures all underwent mandatory urgent Polymerase Chain Reaction (PCR) tests. And once they were cleared of COVID, the cases would be booked for Emergency Theatre. None of the patients had a dire enough emergency that could not wait for a PCR test to be completed. Our plan for any such case which required immediate surgery was to proceed with full PPE cover in the operating theatre.

Prior to the pandemic, the ORL Department of Tawau also provided monthly Visiting specialist clinics to Hospital Lahad Datu as well as 2 monthly visits to Hospital Kunak and Hospital Semporna. All visiting clinics were indefinitely postponed from the month of March 2020. Emergent cases were advised to be sent directly to Tawau Hospital.

COVID Positive Patients

Our experience showed that even with the RTK test being negative, there were two instances where the patients seen were found to be subsequently COVID positive. We immediately shut the clinic down and carbolysed the areas where those patients had been present, namely the consultation room and the endoscopy room. ORL Staff exposed to the patients all underwent mandatory PCR tests and were quarantined until their results were known. Thankfully none of the staff were infected with COVID. Our strict movement protocols in the department was probably the reason we managed to avoid cross contamination to our staff.

We performed two tracheostomy procedures for COVID patients requiring prolonged ventilation. We reserved the surgery until day 21 post diagnosis of COVID to reduce the risk of transmission. Even then, we performed the procedures with the full protective equipment, including using Powered Air Purifying Respirators (PAPR)

CONCLUSION

At the time of writing, the State of Sabah continues to deal with the third wave of the COVID in Malaysia. The absolute numbers are not as bad as the first or second wave, however the proportion of ill patients in Stage 4 & 5 are just as bad as the previous waves. It remains to be seen if these numbers will go down over the coming months considering a Movement Control Order is in place. The one thing we have learnt from the multiple waves is, it's always better to be safe than sorry so it is imperative we keep our guard up for the time being.

CONFLICT OF INTEREST

The authors declare no conflict of interest in writing this paper.

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