

# Sharing Experience of Telemedicine for Neurosurgery Management during COVID 19 Pandemic

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Pandemics are rare and even years to centuries pass before we experience them in our lives. The Black Death (1347), The great plague of London (1665), and Spanish flue (1918) were major pandemics observed by human lives. Similarly, 2020 would be remembered by generations as potential hazard that changed the life of whole world. Covid-19 started in Wuhan china and was reported by WHO (World health organisation) on December 31 and declared as public health emergency of international concern on 30 Jan 2020. It was termed as SARS-COV2.

Telemedicine had started a way back in 1970<sup>1</sup>. Despite widespread application of telemedicine, its use has been limited to neurology and neurosurgery because of its own limitations like medicolegal issues, licensing, malpractice, and technology issues. Covid-19 outbreak led to serious health concerns all over the world with almost affecting every country<sup>2</sup>. This virus was found to be so contagious that it leads to social distancing.

Covid-19 virus led to person to person social distancing, doctor-patient distancing in order to decrease the spread of virus<sup>3</sup>. So, in order to provide health facilities, we started tele-medicines as a way of reaching out with patients. In this paper, we have discussed the importance of telemedicine along with its limitations.

Telemedicine allows patient to contact doctors, avoid travels, reducing risk of contracting infection. It allows in providing health facilities while practising social distancing. It also allows follow up of patients to avoid unnecessary hospital visits and take advice regarding further treatment. Tele-consultation can be done through video, audio and text based. Text based consultations can be done through smart-phone applications, websites, internet based systems, general messaging, text and email too.

In this pandemic, we noticed that patients faced problems like stress, anxiety, headache and uncertainty about future. We received a lot of calls regarding stress and anxiety. Various elective neurosurgery cases were postponed to create hospital beds, to free hospital staff and for medical supplies. However, all emergency surgeries were carried with due precautions. In our hospital also, we carried all emergency surgeries with due precautions as emergency neurosurgery cases cannot wait.

Postponing spinal surgeries can lead to increased morbidity with functional disability<sup>4,5</sup> and should be followed by tele-consultation to review medicines to explain delay in surgery. Patient may require some documents for patient's employer to submit for same. We used to ask patients to take medicines from hospital pharmacy and were sent to them

through courier. Meanwhile, patients postponed for spinal surgeries can be referred to physiotherapist who can provide neurological tele-rehabilitation.

Social distancing is an effective mode of preventing spread of virus and even doctors and paramedics should communicate with each other by online mode of communication with each other<sup>6</sup>. Telemedicine has been placed under various laws imposed by each country. These laws are to be followed and are being modified as and when required.

Various limitations of tele-consultation are physical contact and examination of patient diagnosis rely more on history and radiology. In this scenario patient, requires need of relative or family member to perform certain tests for examination and holds true for children and old population. But privacy issues may arise in some cases. Some remote areas may not have access to these facilities, and some may not know about it, and some may not be able to use it. Despite all these limitations, telemedicine has emerged as milestone in pandemics like Covid-19, while reaching out to patients in these difficult times.

In the end, I strongly believe that during difficult times of Covid-19, telemedicine have provided all essential services to patients. Telemedicine is a great asset and its awareness should be created among masses, should be developed and will prove very useful in future and has a great applicability if used judiciously.

**Conflict of interest** - Nil

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