



Letter to the Editor

Neurosurgery in Iraq at the Time of Corona

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Received : 31 March 2020

Accepted : 18 April 2020

Published : 09 May 2020

DOI

[10.25259/SNI_143_2020](https://doi.org/10.25259/SNI_143_2020)

Quick Response Code:



COVID 19: A RAPIDLY EVOLVING SITUATION

On December 31, 2019, the World Health Organization (WHO) country office in Wuhan city, China, was informed of a “case of unknown pneumonia.”^[1] On January 7, 2020, the Chinese authorities identified a novel strain of the coronavirus family (COVID-19).^[1] Despite strict containment measures to stem the spread of the virus, the situation has escalated rapidly; the virus has now swept across 114 nations, with a total of 33106 deaths and 693224 confirmed cases worldwide (data as of the WHO’s situation report on March 30, 2020).^[3] On March 11, 2020, the WHO director – Tedros Adhanom Ghebreyesus – officially announced the disease as a global pandemic.^[3] The trajectory of cases in China and Italy, along with the current exposure graphs, predicts that the numbers will skyrocket and reach a peak at the end of April/May/June.^[2]

THE SITUATION IN IRAQ

The first confirmed case of COVID-19 in Iraq was reported on February 22, 2020. Soon after, case reporting was coming from all the 18 governorates, with a total death toll of 42 and 547 confirmed cases, as of March 30, 2020 data.^[3] Importantly, due to the scarcity of testing kits and poor case reporting, it is very likely that these numbers represent the tip of the iceberg of a larger cohort of COVID-positive patients. The government has taken several steps in an attempt to contain the spread of the virus; a nation-wide curfew was imposed since March 1, 2020, a complete lockdown ordered, schools suspended, religious gatherings banned, airports closed, and flight operations ceased. However, adherence to the governmental orders has been sub-optimal throughout the country and the number of cases is multiplying. Several factors may have contributed to the public defiance of governmental orders including the recent anti-political turmoil, collapsing central government systems, and lack of public awareness of infection control principles.

THE IMPACT OF COVID-19 ON HEALTHCARE

The health-care systems across the globe are struggling to meet the new challenges imposed by the new pandemic. Even the most efficient of systems are stricken by the urgent need to re-allocate and mobilize human and technical resources. Case-triaging recommendations are being constantly updated by professional societies to lessen the unprecedented decision-making burden on health-care providers.^[2] As in all public health emergencies, there has been a paradigm shift toward a utilitarian model of healthcare; community rather than patient-centered approach is now the basis of treatment decisions meaning that the principles of patient autonomy and beneficence are being sacrificed for the greater good. Predictably, such a shift has opened the door to significant moral and ethical dilemmas.

In Iraq, the set of challenges is rather unique; while the medical personnel are accustomed to working under conditions of extreme resource scarcity, our already collapsing, war-strained, cash-starved health-care system is unlikely to withstand the pressure brought on by the pandemic and, should the number of cases continues to escalate, the system is very likely to disintegrate, with deleterious short- and long-term consequences.

THE IMPACT OF COVID-19 ON THE NEUROSURGERY SERVICE IN IRAQ

Despite having no direct pathological effects from a neurosurgical point of view, the COVID-19 pandemic is significantly impacting the neurosurgical practice worldwide. In anticipation of the next exponential phase of the pandemic, many neurosurgical centers have curtailed the performance of non-emergency surgeries in an attempt to limit the spread of the virus and conserve vital resources.^[2]

The Neurosurgery Teaching Hospital (NTH) in Baghdad/Iraq provides neurosurgical care for 4.2 million people – approximately 50% of the population in Baghdad – with a total capacity of 102 beds, 16 neurosurgical intensive care unit beds, and 7 operating rooms. The hospital hosts 17 neurosurgeons and 10 residents. On January 6, 2020, the NTH declared a delay in all elective and semi-elective cases until further notice to curb the spread of the virus. From January to April 2020, 180 operations performed, as compared to 538 cases over this same period in 2019; a net decrease of 67%. Elective spinal and peripheral nerve surgeries were mostly affected with a total decrease of 91% (from 209 to 18 cases). The number of elective cranial operations went from 128 to 52; a total decrease of 59%. Trauma and other emergency operations were reduced to a lesser extent, from 201 to 106; a decrease of 47%. At present, only 2 operating rooms are available for trauma and emergency cases.

While not yet a COVID-burdened area, cases are getting imported into the hospital and in-patient cross-contamination will be inevitable, especially in the absence of basic hygiene and infection-control measures and the lack of terminal cleaning supplies. As of March 29, 2020, a total of 8 hospital personnel (four doctors and four paramedics) have been home-quarantined due to possible contact with two COVID-positive cases that were accidentally identified in the hospital.

This trend is alarming for multiple reasons: First, with the lack of sufficient testing kits, the hospital will quickly become

a COVID-hub. Second, the hospital is already limping with the minimum number of trained personnel and is unlikely to survive the challenges posed by further staff shortages. Third, there is a serious supply deficit in terms of personal protective equipment (PPE). Indeed, only 10% of hospital needs of standard PPEs are currently being met and hospital staff is working exposed under minimum protection. Fifth, the hospital provides care to a critically-ill patient group who is extremely vulnerable to the fatal complications of the infection.

CONCLUSION

It is inevitable that health-care resources and infrastructure will be strained over the forthcoming months. However, to survive this public health crisis, a strategic, inter-sectorial action plan that involves international experience sharing is urgently called for.

Declaration of patient consent

Patient's consent not required as there are no patients in this study.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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How to cite this article: Hoz SS, Al-Sharshahi ZF, Albanaa SA. Neurosurgery in Iraq at the time of corona. *Surg Neurol Int* 2020;11:103.