Letter: Neurosurgical Patients' Management During the COVID-19 Pandemic—An Institutional Report From an African Neurosurgical Center

To the Editor:

Since the first diagnosed case of COVID-19 on March 2, the Moroccan government has taken several strict measures to try to contain the pandemic and reduce the burden of an expanding disease: country borders shut down by March 14, early lockdown of airports and public spaces by March 18, and social distancing and restricted mobility by March 20.

A full reorganization of the health system was initiated countrywide, creating regional admission centers, specific testing departments within a COVID-19 pathway, and specialty hubs for continuous medical service. Reducing admission activity rate was also one of the measures undertaken.

Here we summarize and share our experience in managing neurosurgical patients during the COVID-19 pandemic at the Rabat WFNS reference training center.

ORGANIZATION

Early during the outbreak of the pandemic, the Rabat-Salé region (4.5 million people) turned out to be one of the 3 most affected regions.

At the first stage of the disease spread, the Salé regional hospital was designated for all COVID-19 admissions. When phase 2 of the disease progression was announced by March 18, more extensive measures and departments remodeling were needed: Scheduled activity was stopped, and special COVID-19 pathways were created. Most departments were converted into COVID-19 facilities. The Oto-Neuro-Ophtalmology hospital, considered as an off-site hospital, was assigned to manage all non-COVID patients with urgent neurosurgical pathology.

Admission Profiles and Measures

Patients were either admitted directly, if belonging to the Rabat-Salé region (direct admission), or referred from regional hospitals (indirect admission). Prior to admission, patients undergo medical history checking and fever testing.

Emergency Case Definition and Stratification

Admitted patients belonged to 2 groups: those requiring immediate surgical procedure (group A) and those requiring urgent but still scheduled surgery (group B).

Circuit for Patient Management

Admission was limited to a maximum of 2 patients per room.

Group A patients were operated in the emergency operating room (OR) and group B patients were operated in the mean operating theatre, directly connected to the intensive care unit (ICU).

Discharge was made early, and patients followed up over regular phone calls. The patient's bed and room were then thoroughly sterilized and kept free of patients for at least 24 h.

During hospitalization, only 1 visitor per day/patient was allowed. All wore protective masks.

DISCUSSION

African health systems needed to take proactive measures to lower the impact of such a disease.

However, many of the recommendations published by other neurosurgical centers could not be achieved given the local limitations and resources.[1-4]

We believe that systematic pulmonary computed tomography (CT) scan helped initially in assessing a patient's COVID-19 status.[1,5] COVID-19 testing further reinforced the algorithms set up by the local committee and accelerated the diagnosis of suspected cases.

PERSPECTIVES

To date, while achieving a regular surgical load (12 surgeries a week), only 1 case of a confirmed COVID-19 patient escaped the algorithm. Since, and being aware of future difficulties, we proposed a complementary algorithm, designed to help prevent cross-infections, in which the neurosurgery department will be further split into 2 units.

Although the sustainability of this system may be questionable for the long term, it has proven to be efficient in preserving the non-COVID status of the hospital so far. Its reproducibility and adaptability for alike African countries may still be possible and might be one possible gateway for African countries against this outbreak.

Disclosures

The authors have no personal, financial, or institutional interest in any of the drugs, materials, or devices described in this article.

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