SUPPLEMENTARY DATA

Korean Nation-wide Survey (%)
1. Please provide the name and location of the hospital where you work. (Hospital name/Hospital location)
2. What type of hospital are you working for?
   a. Tertiary medical institution: 72.6%
   b. Secondary medical institution: 27.4%
   c. Primary medical institution: 0%

Practice
1. Does your hospital perform COVID-19 tests on all patients when hospitalized through outpatient clinics for patients who need neurointervention or examination?
   a. Conducted for all patients: 54.8%
   b. Selectively performed for patients with symptoms: 43.5%
   c. Do not carry out: 1.6%
2. Does your hospital perform COVID-19 tests on all patients needing neurointervention or testing when hospitalized through the emergency room?
   a. Conducted for all patients: 54.8%
   b. Selectively performed for patients with symptoms: 45.2%
   c. Do not carry out: 0%
3. Does your hospital have a dedicated route for transferring suspected or confirmed COVID-19 patients from the emergency room to the cerebral angiography room?
   a. Yes: 17.7%
   b. No: 82.3%
4. Which of followings do you use for patients with suspected or confirmed COVID-19 in the cerebrovascular angiography room?
   a. Surgical (dental) mask: 88.7%
   b. N95 mask: 6.5%
   c. Powered air-purifying respirator (PAPR): 4.8%
5. How many masks are supplied by the hospital per person per day?
   a. 1: 59.7%
   b. 2: 25.8%
   c. 3: 9.7%
   d. 4 or more: 4.8%
6. In the cerebrovascular angiography room, do you put a mask on the patient during the procedure if the patient is a suspected or confirmed COVID-19 patient?
   a. Yes: 96.8%
   b. No: 3.2%
7. Is there a dedicated treatment room for patients with suspected or confirmed COVID-19 in the cerebrovascular angiography room?
   a. Yes: 91.9%
   b. No: 8.1%
8. Is there a negative pressure device in the cerebrovascular angiography room?
   a. Yes: 83.9%
   b. No: 16.1%
9. When the PCR test result of a suspected COVID-19 patient does not come out until the end of treatment, what does the medical staff do?
   a. Immediately do other tasks (operation, image interpretation, outpatient, etc.): 40.3%
   b. Wait in quarantine until the results of the test are available: 41.9%
   c. Even if it is not until results are obtained, a certain amount of time is taken before other tasks: 17.7%
10. Do you have two or more teams of medical treatment staff (doctors, nurses, radiologists) in preparation for the possibility that patients who has undergone treatment will test positive for COVID-19?
    a. Divided: 12.9%
    b. It cannot be divided by manpower or hospital circumstances: 72.6%
    c. Depending on the situation: 14.5%
11. Where is the intubation performed at your hospital when general anesthesia is required for emergency procedures for suspected or confirmed COVID-19 patients?
    a. In the cerebrovascular angiography room: 49.2%
    b. In a separate place with a negative pressure device: 24.6%
    c. In a separate place without negative pressure devices: 26.2%
12. After treatment of a suspected or confirmed patient of COVID-19, do you close the door of the cerebral angiography room and ventilate or disinfect before the next patient’s procedure?
    a. Yes: 93.5%
    b. No: 6.5%
13. How long is the time for ventilation and disinfection after treatment of suspected or confirmed COVID-19 patients?
    a. No ventilation or disinfection is performed: 6.6%
    b. 30 minutes: 23%
    c. 1 hour: 23%
    d. 1 hour 30 minutes or more: 47.5%

https://doi.org/10.5469/neuroint.2021.00304
14. Have you experience of treating a patient diagnosed with COVID-19 including a patient confirmed with COVID-19 after treatment?
   a. Yes: 1.6%
   b. No: 98.4%
15. Has there been a case of a medical staff (e.g., doctor, nurse, and radiologist) infected with COVID-19 due to a patient after surgery in the cerebrovascular angiography room?
   a. Yes: 0%
   b. No: 100%
16. How long does it takes for COVID-19 test in the emergency room?
   a. < 1 hour: 1.6%
   b. 1–2 hours: 8.1%
   c. 2–24 hours: 85.5%
   d. > 24 hours: 4.8%
17. For emergency patients who need neurointervention, is chest CT performed at the same time when brain CT is taken?
   a. This is done for all patients: 11.3%
   b. It is administered to patients suspected as having COVID-19, such as fever and respiratory symptoms: 74.2%
   c. Do not enforce: 14.5%
18. Do you perform chest X-ray for emergency patients who need neurointervention?
   a. It is performed for all patients: 83.9%
   b. It is administered to patients with suspected COVID-19, such as fever and respiratory symptoms: 14.5%
   c. Do not enforce: 1.6%
19. Do you think that you are wearing appropriate protective equipment when performing the procedure for a suspected or confirmed patient of COVID-19?
   a. Yes: 61.3%
   b. No: 38.7%

Impact of COVID-19 (13 questions)
20. What kind of prospective studies are in progress?
    a. Stroke, Randomized Clinical Trial (RCT): 45.8%
    b. Stroke, Single arm: 45.8%
    c. Aneurysm, Randomized Clinical Trial (RCT): 0%
    d. Aneurysm, Single arm: 12.5%
21. Have there been any obstacles to continuing prospective design research due to COVID-19?
    a. Yes: 26.9%
    b. No: 73.1% → Go to # 26
22. If there are any problems with the research, what kind of problems are there? (Multiple selection possible)
    a. Patient recruitment: 100%
    b. Follow up imaging: 0%
    c. Outpatient follow up: 14.3%
    d. Protocol deviation: 14.3%
23. Patient recruitment is
    a. Ongoing without delay: 44.4%
    b. Partially delayed: 55.6%
    c. On hold: 0%
24. If you perform mechanical thrombectomy under general anesthesia?
    a. It is carried out for all patients: 93.5%
    b. Rarely but depending on the patient’s condition: 3.2%
    c. It is not performed: 3.2% → Go to #31
25. If you perform mechanical thrombectomy under general anesthesia, the incidence of general anesthesia due to COVID-19
    a. Increased by more than 25%: 0%
    b. Showed no change (<25%): 100%
    c. Decreased by more than 25%: 0%
31. If there is a decrease in the total number of neurointerventions due to COVID-19, when do you expect to re-commence to full capacity with non-emergency procedures?
   a. Already recovered (or never decreased): 43.5%
   b. Within 6 months: 22.6%
   c. 6 months to 1 year: 12.9%
   d. Over 1 year: 11.3%
   e. No idea: 9.7%

32. Do you have any mental or psychological symptoms during treatment in the era of COVID-19? (Multiple answers available)
   a. None: 51.6%
   b. Depression: 32.3%
   c. Insomnia: 3.2%
   d. Anxiety: 27.4%
   e. Others: 0%