View metadata, citation and similar papers at core.ac.uk
brought to you by CORE
provided by Journal of Lumbini Medical College (JLMC)

https://doi.org/10.22502/jlmc.v8i1.326

Perspective

COVID-19 Pandemic: A Surgical Perspective from Japan

Pramod Nepal,[a,b] Saseem Poudel,[c,d] Narendra Maharjan [a,e]

Japan reported its first COVID-19 case after a returnee from Wuhan, China tested positive for the virus on 16 January, 2020. On April 8, the Japanese government declared emergency in Tokyo and six other prefectures of the country; a nationwide emergency was declared on April 16. The total reported cases were 15,477 and total deaths 755 as of May 7, 2020.

Japan Surgical Society (JSS)[1] and Japanese Society of Gastroenterological Surgery (JSGS)[2] have published recommendations for surgery and appropriate measures of safety. Patients are triaged based on the severity of their disease and level of outbreak. The Elective Surgery Acuity Scale (ESAS) by American College of Surgeons is recommended to triage the patients.[3] The guidelines consider the risk of infection during the interventions that generate aerosol such as tracheal intubation, extubation, tracheostomy, mask ventilation, bronchoscopy, chest drainage, gastrointestinal endoscopy etc. JSS and JSGS recommend designated operating room (OR) with adequate supply of necessary drugs, and restriction on the unnecessary movement of people to reduce the frequency of opening and closing the door. Anesthesia should be provided by anesthetists (as per guidelines from Japan Society of Anesthesiology); surgeons and medical personnel not involved in anesthetizing the patient should not be present in the OR during the procedure and the OR should preferably be in negative pressure. When performing the laparoscopic surgeries, JSS has recommended SAGES guidelines on smoke and gas evacuation during open, laparoscopic and endoscopic procedures, and advocate on the use of high-precision filter and the exhaust gas to prevent possible virus spread through surgical smoke.[4] After surgery, the postoperative care of infected or suspected patients should be taken care by minimum number of personnel waiting outside the OR. The personal protective equipment (PPE) of the people involved in the transportation of the patient to OR should not be the same that was used at the time of surgery. The surgical gown should be donned and doffed inside the OR. It is further suggested taking shower inside the OR area post-surgery, and maintaining hand hygiene and social distancing inside OR.

In cases of emergency surgery, JSS and JSGS recommend waiting for the test results in suspected cases until the time permits, to wear full PPE for emergency surgery in confirmed and suspected cases, and to select the surgical procedure from the viewpoint of shortening the operating time and ensuring maximum safety of patients and the medical staffs. Emergency surgeries are asked to be postponed if possible when the number of staff is less, such as during night hours.

The hospitals are asked to judge the need for surgery and stability of continued supply of medical equipment based upon the latest situation. JSS follows Center for Disease Control (CDC) recommendations on use of PPE. To deal with the exhaustion and mental fatigue caused by PPE, short procedures are

Submitted: 9 May, 2020
Accepted: 22 May, 2020
Published: 22 May, 2020

a- Resident,
b-Department of Digestive Surgery, Breast and Thyroid Surgery, Kagoshima University Graduate School of Medicine, Kagoshima, Japan.
c- General Surgeon, Department of Surgery, Steel Memorial Muroran Hospital,
d- Department of Gastroenterological Surgery II, Hokkaido University Graduate School of Medicine, Sapporo, Japan.
e-MCh GI Surgery, Maharajgunj Medical Campus, Tribhuvan University Teaching Hospital, Kathmandu, Nepal.

Corresponding Author:
Pramod Nepal
e-mail:npl.pmd@gmail.com
ORCID: https://orcid.org/0000-0002-3376-239X
How to cite this article:
Nepal P, Poudel S, Maharjan N. COVID-19 Pandemic: A Surgical Perspective from Japan. Journal of Lumbini Medical College. 2020;8(1):2 pages. DOI: https://doi.org/10.22502/jlmc.v8i1.326
Epub: 2020 May 22.

Licensed under CC BY 4.0 *International License which permits use, distribution and reproduction in any medium, provided the original work is properly cited.*

to be opted for, and if possible and required during long procedures, surgeons should be replaced. The hospitals are expected to provide accommodation facilities for the medical staffs who finished surgery or treatment of confirmed or suspected cases and cannot return to their homes. JSS and JSGS also endorse general etiquettes, for example; getting clothes off and washing immediately when reaching home, reducing physical contact between families, proper cleaning of phones, regular cleaning inside home with 60% alcohol, using hand sanitizers or disposable gloves while purchasing goods, at bank ATMs, vending machines, refueling at gas stations, etc. When arriving to hospital, the health workers are expected to take off the clothes they wore from home and put them into bags as not to get infected with the virus.

While reflecting the on-field scenario, in addition to JSS and JSGS guidelines, multiple measures are being carried out by each institution. Individual hospitals have formulated working protocols and screen the patients before surgery. Hospitals in least disease outbreak areas, for example Kagoshima University Hospital, gastrointestinal surgeries are carried out as usual, whereas elective surgeries in oral cavity and oropharynx are postponed. The hospitals in places with greater outbreak have postponed non-emergency benign cases. Surgery for cancer is done regularly in most of the hospitals. In some hospitals, chest CT is performed before surgery and non-emergency surgeries in patients with pneumonia or fever are suspended. Certain well-resourced hospitals perform Polymerase Chain Reaction (PCR) to screen elective cases. There is the issue of lack of disposable gowns and masks; hospitals have started rationing and searching for alternative reusable options. Full PPE and N95 respirators are not used routinely yet. Concern over spread of virus via surgical smoke in laparoscopic surgery is rising, however, none of the hospitals have suspended laparoscopic procedures. Inside hospitals, the doctors, staffs and patients are required to wear masks, and visitors are permitted during the counselling on patient's conditions.

Conflict of interest: Authors declare that no competing interest exists.

Funding: No funds were available for the study.

REFERENCES:

1. Japanese Surgical Society. Proposal for surgery for new corona virus-positive and suspected patients (revised version)]. Japanese. Retrieved from https://www.jssoc.or.jp/
2. The Japanese Society of Gastroenterological Surgery (JSGS). https://www.jsgs.or.jp/index.php
3. American College of Surgeons (ACS). https://www.facs.org/
4. Resources for smoke and gas evacuation during open, laparoscopic, and endoscopic procedures. Society of American Gastrointestinal and Endoscopic Surgeons (SAGES). Retrieved from https://www.sages.org/resources-smoke-gas-evacuation-during-open-laparoscopic-endoscopic-procedures/