

Management of surgery in the era of COVID-19: preliminary data from 11 medical centres in Beijing

Editor



Faced with the comprehensive challenge posed by the COVID-19 pandemic¹, hospital staff are forced to deal with unprecedented physical and psychological stress², and the prognosis of patients receiving surgical interventions may be undermined by countermeasures to prevent COVID-19³. Since the onset of the pandemic, no infection has been reported in surgical personnel in Beijing municipality. Here, we share our experience and preliminary data assembled from 11 major medical centres in Beijing.

Because of the presence of an increasing number of infected, yet asymptomatic individuals in the population⁴, all patients to be admitted to surgical wards must test negative on all the following examinations: epidemiological history, temperature, routine blood test, lung CT and occasional nucleated acid test. Fever, whether on arrival in the emergency room or during postoperative recovery, must be given critical attention⁵. Generally, every hospital in the municipality was equipped with a specialized fever clinic. In our practice, all patients with fever at emergency room or outpatient presentation are referred immediately to a fever clinic for COVID-19 screening. Patients with postoperative fever under 38.5 °C within 3 days after surgery must undergo an immediate routine blood test and repeated temperature tests. Patients with postoperative fever over 38.5 °C within 3 days after surgery, or any fever beyond 3 days after surgery for unknown reasons must be isolated on site in a single-bedded room, and be attended to temporarily by an independent team of staff while waiting for nucleated acid test results to exclude COVID-19 infection.

In Beijing, in the pre-escalation, escalation and post-escalation stages

of the pandemic: 0, 12 and 29 patients were screened for COVID-19; 0, 11 and 25 were transferred to a specialized fever clinic; 15, 14 and 31 presented with fever; and 87, 71 and 98 presented as a surgical emergency. Regarding the method of COVID-19 screening, a majority of patients (8 of 14) were screened by thoracic CT and found to be COVID-negative (without further nucleated acid tests). None were screened directly by nucleated acid test without thoracic CT in the escalation stage; in the post-escalation stage, a majority of patients (15 of 31) were still screened by thoracic CT and found to be negative for COVID-19 (without further nucleated acid tests), whereas a significant proportion of patients (9 of 31) were screened directly by nucleated acid test without thoracic CT. With emergency surgery, in the pre-escalation, escalation and post-escalation stages: 21, 29 and 80 patients were screened for COVID-19; 28, 33 and 58 had postoperative fever; and 35, 51 and 94 patients underwent an emergency operation. For gastrointestinal malignancy: 71, 75 and 246 patients screened for COVID-19; 19, 19 and 92 patients had postoperative fevers; and 28, 28 and 83 patients underwent elective surgery. The majority of these patients with postoperative fevers were screened using measures involving neither nucleated acid tests nor thoracic CT.

In summary, during the COVID-19 pandemic, routine admissions to a surgical ward and patients presenting with fever at the emergency department both need thorough screening, although in different ways; postoperative fevers require critical attention, but the screening methods used need not be as thorough as those in emergency rooms.

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