


Surgery in the COVID-19 pandemic: clinical characteristics and outcomes

Editor

COVID-19 disease (SARS-Cov-2 virus) has gripped the world for the last few months. We describe our clinical experience of surgically treating patients with COVID-19 at Wuhan Union Hospital in China, from 1 February to 5 April 2020. In total, 28 surgical patients with confirmed COVID-19 had surgery a median (interquartile range (i.q.r)) 2.5 (1.0 to 10.5) days after admission, with a median (i.q.r.) duration of surgery of 120.0 (60.0 to 180.0) min. Four patients had general anaesthesia and were transferred to the ICU postoperatively, 21 underwent spinal anaesthesia and three had local anaesthetic alone. Preoperative laboratory results (white cell and neutrophil count, D-dimers, prothrombin time, international normalized ratio and alanine aminotransferase) were significantly higher in the patients who underwent general compared with spinal anaesthesia (by more than 10 per cent; $P < 0.05$). One patient died, but no surgeons were infected with COVID-19 during the operations. Mortality in this study was 3.57 per cent, similar to others^{1,2}. A recent report³ encouraged minimal use of general anaesthesia in COVID-19

patients, due to its adverse effect on patients, and aerosol generation. Of the cases reported here, 15 were pregnant women, demonstrating that this group are vulnerable during a pandemic, with caesarean section being one of the most common emergency procedures during the outbreak⁴. The phenomenon of recurrent positive testing after discharge has been mooted. In these cases, median (i.q.r.) follow-up period was 38.0 (24.0 to 48.0) days, which is longer than the reported average incubation period of COVID-19. We noted no recurrence of positive tests, and hence assume that recurrent infection is not the norm. As we move toward reopening surgical services globally^{5,6}, the information here should be of value.

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