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Correspondence

How the Covid-19 pandemic affects our perspective on the medical treatment of acute appendicitis in children



Dear editor,

Although the treatment of acute appendicitis is surgical, studies have been carried out for its medical treatment in children. In these studies, antibiotics were used in the early stage of appendicitis to induce regression of lymphoid hyperplasia caused by bacterial infection and ultimately prevent ischemia and bacterial invasion [1]. Medical treatment, which was previously limited, has become increasingly common during the Covid-19 pandemic [2].

An 11-year-old male patient admitted to the emergency department with the complaint of abdominal pain, loss of appetite and vomiting that commenced 24 h ago. There were no complaints of loss of taste, sore throat, cough, or respiratory distress. In his systemic examination, body temperature, pulse and respiratory rates were normal. There was widespread tenderness on abdominal palpation. WBC and sedimentation rates were normal, and CRP was high. Kidney and liver function tests including amylase were within normal limits. In radiology work-up, low-density pneumonia foci involving bilateral middle and lower zones were seen on thorax X-ray (Fig. 1) and a ground-glass appearance specific to SARS-CoV-2 infection (Fig. 2) was observed in thorax CT. Covid RT-PCR was performed, and the test result was positive. After the abdominal tenderness was localized to the right lower quadrant in the follow-



Fig. 1.. Plain chest X-ray shows patchy radiopacity areas in the middle and lower zones of both lungs.



Fig. 2.. A section from thorax CT showed diffuse bilateral subpleural and peribronchial patchy ground-glass opacities involving multiple lung lobes.

up abdominal examinations, the increase in the diameter of the appendix was confirmed radiologically by abdominal ultrasonography. Multisystem inflammatory syndrome involving the gastrointestinal tract as a complication of SARS CoV-2 infection was not considered in our patient and employing medical treatment as the choice of management was thereupon decided. The patient who responded positively to the medical management was discharged after the end of the quarantine period.

Providing anesthesia in pediatric population during the Covid-19 pandemic has its own unique challenges. Although the documented incidence of disease in children is lower, the high rate of asymptomatic carriers increases the risk of viral transmission to other patients and the healthcare team. The rates and severity of adverse perioperative outcomes in pediatric patients are less than in adults but are based on limited reported data. In a study summarizing 20 pediatric patients with a diagnosis of Covid-19 who underwent general anesthesia [3], it was found that 12 required emergency surgery and 9 patients had preoperative symptoms such as cough, fever, or diarrhea. It has been reported that 3 patients who required noninvasive ventilation postoperatively did not have any symptoms before surgery. One patient died as a result of small bowel necrosis secondary to intussusception and acute respiratory failure due to concurrent Covid-19 pneumonia [3].

In our clinic, all acute appendicitis cases without Covid-19 disease were treated surgically during the COVID-19 pandemic. The patient, who was diagnosed with acute appendicitis and had no additional respiratory tract findings, had significant involvement of SARS-CoV-2 infection detected in the thorax computed tomography. We decided to treat the patient medically because of the risks of general anesthesia and the difficulties of spinal anesthesia in children [4]. Therefore, we think that medical treatment can be considered as a decent option in selected cases with Covid-19 positive but uncomplicated acute appendicitis.

Best regards.

Declaration of Competing Interest

None.

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