

Clinical-Pathological Correlations in the Acute Surgical Abdomen in the Pre and Post-Pandemic Period Covid-19

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Abstract

Background: In the case of patients admitted with acute abdomen at the emergency department, interstitial pulmonary pathology (Covid-19 infections) represents a significant operative risk for the patients. The rate of postoperative complications is high with increased morbidity and mortality, a real challenge for the medical staff and surgical/intensive care unit teams. In emergency settings, patients were examined with targeted clinical and paraclinical parameters that assure a fast diagnosis to optimize a rapid medical and surgical treatment.

Methods: We conducted a retrospective comparative study that included patients enrolled and diagnosed with an acute surgical abdomen in Surgical Clinic 1 – Tg. Mures Emergency County Hospital. Patients were examined and analyzed at the emergency department UPU-SMURD. We included patients admitted over the two years (2019 and 2020) and divided them into two groups.

Results: The total number of patients admitted in the UPU-Smurd emergency department – Surgical Clinic I over the two years was 1033. There was a significant reduction in total cases diagnosed with the acute surgical abdomen in the pandemic period ($p=0.033$). The average time from the admission to the surgical procedure was significantly higher in the pandemic period 380 ± 2 min in comparison with 222 ± 3 min ($p=0.001$) and also with an increased average operative time 223 ± 3 min versus 145 ± 2 min ($p=0.002$). Average hospitalization time was higher in the pandemic period 10 ± 1 ($p=0.031$) with no significant difference between the groups regarding Intensive Care Unit (ICU) admission ($p=0.122$). Overall mortality has more than doubled, with 31 cases (19%) in the pandemic and 28 (9%) in the non-pandemic. ($p=0.001$).

Conclusions: The COVID-19 pandemic has played an essential role in treating acute surgical abdomen cases. The high solicitation rate of the emergency department delayed the diagnosis and treatment of severe surgical cases. As the scale of this pandemic is unprecedented, standard protocols with minor changes do not provide adequate results

Key words: acute surgical abdomen, COVID-19, emergency surgery, prepandemic, pandemic