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Covid-19 and Its Impact on Colorectal Cancer Diagnosis in Romania: A Single-Centered 5-year Retrospective Cohort Study

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Abstract

Background: Colorectal cancer, 3rd in incidence and 2nd in mortality among cancers worldwide, represents the most common malignant tumor of the digestive tract. In Romania, it is the most frequently diagnosed type of cancer (approximately 0.06% of the population/year). During the Covid-19 pandemic the legislation preventing the SARS-CoV-2 viral transmission impairing access to outpatient healthcare services combined with patients' fear of SARS-CoV-2 infection had consequences on the diagnosis and treatment of all other pathologies.

Methods: A 5-year retrospective cohort study was conducted in a tertiary hospital in Arad, Romania, and included 1329 newly diagnosed colorectal cancer patients. For statistical analysis, Fisher's exact test was used for categorical data and the unpaired t test with Welch's correction for continuous data.

Results: The age on diagnosis decreased during the early Covid-19 pandemic to 68.50 (95% CI [67.90–69.11]) years, with the highest percentage (7.41%) of early onset colorectal cancer patients, a steady post-pandemic increase in the percentage of male (52.71% in 2019 to 62.20% in 2022) and urban (54.18% in 2018 to 70.10% in 2022) patients, admitted to the hospital due to an emergency presentation (peaking at 83.95% in 2020) and requiring a longer hospitalization period (10.03 [95% CI (8.76-11.30)] days in 2020 to 8.37 [95% CI (7.44-9.30)] days in 2022). The most common colo-rectal cancer diagnosis of patients in our reference population was malignant neoplasm of the rectum (ICD-10 code C20.0), while the most common complications were peritumoral adherence-related disorder, occlusion, and perforation, encountered in patients with comorbidities such as arterial hypertension, ischemic cardiomyopathy, diabetes mellitus, obesity, and non-alcoholic steatohepatitis.

Conclusions: Regional particularities should be analyzed to better target the population at risk and to better direct the necessary healthcare resources towards the reference population, especially during crisis periods similar to the Covid-19 pandemic.

Key words: colorectal cancer, hospital presentation, COVID-19 pandemic, secondary diagnosis, complications