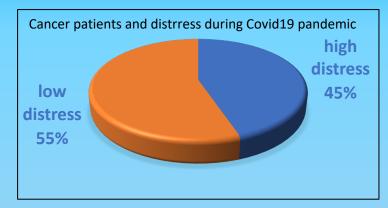


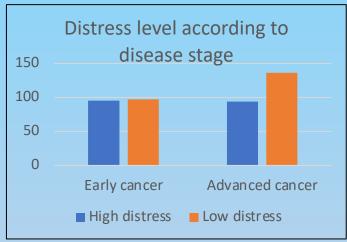
## The impact of COVID19 pandemic on distress level in cancer patients, a cross-sectional multicentric study

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**Objectives:** In March 2020 the World Health Organisation declared a pandemic of the coronavirus disease 2019 (COVID 19), caused by the SarsCov2 virus. The first wave of the pandemic marked implementation of strict epidemiological measures such as lockdown, social distancing, and self-isolation. Cancer patients, which were at that time receiving systemic oncology treatment, were considered a high-risk population with regards to SarsCov2 infection. These new circumstances posed possible obstacles for the continuation of oncology treatments for cancer patients and, as such, potentially led to an increase in distress in that group of patients. This study aimed to examine the impact of the COVID19 outbreak on the level of distress among cancer patients.





**Methods:** A total of 728 cancer patients, in 9 oncology centers, were approached to participate in the study. The study questionnaire with disease and sociodemographic characteristics was completed by 422 patients. Patients were stratified by cancer type: breast, gastrointestinal (colon, gastric, pancreatic), and other cancer types (lung, prostate, ovarian); and by disease stage, early or metastatic. All patients had to have an ongoing active oncology treatment which required regular visits to outpatient clinics or inpatient oncology departments. The distress level was measured using the Distress Thermometer with a cut-off value of 4.

**Results:** There were 201 (47%) patients with breast cancer, 130 (32%) patients with gastrointestinal cancer (colon, pancreatic and gastric cancer), and 92 (21%) patients with other types of cancer (lung, prostate, ovarian). A total of 192 (46%) patients had early disease stage while 230 (54%) patients had advanced disease, respectively. A high distress level was reported in 189 (44.8%) of all patients. The breast cancer patients had significantly higher levels of distress when comparing with other types of cancer. There was no significant difference in distress level between patients with early and metastatic disease stage.

**Conclusion:** Almost every second cancer patient with ongoing active oncology treatment was distressed during the first wave of the COVID19 pandemic, regardless of the disease stage. Breast cancer patients tend to have higher levels of distress when comparing with other cancer types. When evaluating distress during a pandemic one should take into account the possible impact of various aspects of COVID19 disease and pandemic on a distress level in cancer patients.