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**THE IMPACT OF COVID-19 PANDEMIC FOR DIAGNOSIS AND TREATMENT  
OF LUNG CANCER**

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**Background.** The COVID19 pandemic poses a challenge to health systems around the world. By limiting the availability of healthcare, it may contribute to delaying early diagnosis and worsening the treatment effects of various diseases, including oncological diseases.

**Aim:** the aim of the study was to determine the impact of the COVID-19 pandemic on the lung cancer patients presenting for the first time for diagnosis and treatment.

**Methods.** We have analyzed patients presenting to the 2nd Department of Lung Diseases and Tuberculosis in Białystok, Poland with suspicion of lung cancer in the period of 3 months prior the COVID19 pandemic (pre-COVID) and, similarly, 3 months after the outbreak of the pandemic (mid-COVID). The analyzed data included demographic data, performance status on admission according to the ECOG scale, clinical stage of cancer, and type of treatment.

**Results.** In total 76 patients were analyzed: 48 patients admitted in the 3 months before the outbreak of the pandemic and 28 people after the outbreak of the pandemic. The average age of the patients for the whole group is 67 years (both for men and women). During the COVID period, there was a lower percentage of patients presenting with ECOG performance status 0-1 with noticeably increased percentage of patients with ECOG PS  $\geq 2$  (ECOG 0-1 pre-COVID vs mid-COVID: 44 (91%) vs 20 (71%); ECOG  $\geq 2$  pre-COVID vs mid-COVID : 4 (8%) vs 8 (66%)). In the mid-COVID period, among newly diagnosed cancer cases, non-radical treatment was used more often (chemotherapy, immunotherapy, symptomatic treatment): (non-radical treatment pre-COVID vs mid-COVID: 39 (81%) vs 20 (71%); radical treatment pre-COVID vs mid-COVID: 9 (19%) vs 3 (11%)).

**Conclusions.** In our study, we observed a significant impact of the COVID19 pandemic on the performance status of patients presenting for the first time with suspected lung cancer. During the pandemic, patients were more likely to be eligible for non-radical treatment. The difference in the observed advancement of disease between the two groups is not statistically significant, but there is a tendency towards greater severity of the disease in patients reporting after the outbreak of the pandemic.