

# The Impact of Covid-19 Pandemic in the Diagnosis of Breast Cancer in Albania

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## Abstract

**Introduction:** Since the beginning of the quarantine from COVID19, in March 2020, the Albanian Ministry of Health and Social Protection, according to WHO recommendations, recommended everyone to avoid going to the doctor's office unless in case of emergency, in order to avoid exposure to groups of people that would lead to bigger chances of contracting the infection.

**Objective:** To understand if the COVID19 pandemic has impacted the number of cancer cases diagnosed during the years 2020 and 2021, in comparison to 2019. To understand if the COVID19 pandemic has impacted the stage in which the disease was diagnosed, in 2020 and 2021 compared to 2019.

To see if there is any change in the number of triple negative breast cancer diagnosed during 2020 and 2021 compared to 2019.

**Methods:** We collected and analyzed a total of 1562 biopsy data for three years from 2019 to 2021, from the archive of the Service of Surgical Pathology and performed a comparative analysis of the number of cases diagnosed each year and number of cases diagnosed each month. We used Fisher's test and Odds ratios to evaluate staging differences for biopsies over these three years. We examined whether there were any linear trends for changes in breast cancer diagnoses by month within a year.

**Results:** Our analyses do not support significant changes in the proportion of cancers diagnosed

by stage over the years, Stage 2 being the most common. There is not a significant change in the total number of diagnosis from year to year ( $p=0.20$ ). Our model for 2020, supports a significant increase of total diagnoses by month ( $p$ -value: 0.03). For 2021, the monthly increasing trend is also significant, but more weakly so ( $p$ -value: 0.094). There were no significant changes in the mean age of the patients ( $p=0.2$ ) from year to year. There were no significant changes in the triple negative diagnosis ( $p=0.1$ ).

**Conclusion:** Covid19 has influenced the total number of diagnosis, with an increase during the second half of the year 2020 with no direct influence in the disease stage. However further studies need to be done in the evaluation of new cases and disease stage in a longer term basis.

**Keywords:** breast cancer, Covid-19, monthly biopsies, stages.