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The Peripandemic Impact of Colorectal Malignant Neoplasms on Years of Life Lost in the Federation of Bosnia and Herzegovina

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Background

This study seeks to assess the impact of malignant neoplasms on Years of Life Lost (YLL) in the Federation of Bosnia and Herzegovina (FB&H) specifically focusing on C18-C21 (colorectal neoplasms) for both sexes. The analysis aims to understand shifts before and after the pandemic.

Methods

With causes of death data from the Institute for Statistics of FB&H analysis was conducted to evaluate YLL by multiplying age specific deaths with the remaining life expectancy at the same age using the GBD 2019 life expectancy table. Time trends between 2019 and 2022 were analyzed to discern the pandemic's potential impact on the burden of malignant neoplasms in terms of YLL. Age-standardized YLL rates were calculated based on the world standard population.

Results

In 2019, for C18-C21, the total YLL was 14,160, which increased to 14,970 in 2020 and decreased to 14,087 and 12,692 during the pandemic years of 2021, and 2022 respectively. The age-standardized YLL rate for 2019 was 344, whereas for 2020, 2021, and 2022, it retrospectively changed to 360, 331, and 298. During the same period, YLL for males showed similar trends with 7,775, 9,088, 8,519, and 7,354 YLL, while the figures for females showed a steady decrease since 2019 with 6,385, 5,881, 5,567 and 5,338 YLL.

Conclusion

Throughout the pandemic in 2020, there was a noticeable increase in YLL associated with colorectal malignant neoplasms in the male population and decreasing rates during 2021 and 2022. Cancer patients who died of COVID-19 due to their pre-conditions without being tested may erroneously have been registered as having died of cancer leading to an increased registered cancer mortality. This study suggests a possible relationship between COVID-19 mortality and underlying colorectal malignant neoplasms, emphasizing the need for targeting interventions and comprehensive healthcare strategies.

Key message 1

There was a noticeable increase in YLL associated with colorectal malignant neoplasms in male population in 2020 and decrease during 2021 and 2022.

Key Messages 2

This study suggests a possible relationship between COVID-19 mortality and underlying colorectal malignant neoplasms, emphasizing the need for comprehensive healthcare strategies.