

# Is schizophrenia a disadvantage for the diagnosis and prognosis of cancer?

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## Introducción

Schizophrenia is a prevalent chronic mental illness with a wide range of comorbidities. The relation between schizophrenia and cancer is controversial. Some previous studies have shown a lower incidence for some types of cancer. On the other hand, a higher standardized mortality for cancer has been described in patients with schizophrenia. The possible factors that have been suggested for this fact are a delayed diagnosis and limitations on access to oncologic treatment.

## Objective

To describe and compare a sample of oncologic patients with and without schizophrenia.

## Methods

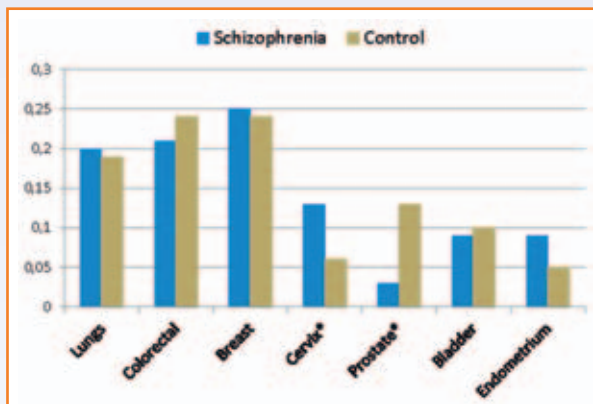
We performed a comparative retrospective study including all the patients with a diagnose of cancer from the Tumor Registry of the Hospital del Mar of Barcelona between 2000 and 2018 (n=22.953). We cross-matched this information with all the patients from our hospital that had a diagnose of schizophrenia in order to define two groups: patients with cancer with and without schizophrenia. We included as variables in both groups: age at diagnosis of cancer, tumor location, tumor stage at diagnose and average survival expressed in months. We performed a non-parametric bivariate analysis (U-Mann Whitney and Kruskal-Wallis test) of the variables, Bonferroni correction was applied in multiple analysis.

## Results

Table 1. Clinical variables comparison between groups

	Schizophrenia	Non-Schizophrenia	sig
Age at diagnose	58,14	65,52	$p<0,005$
Survival (months)	47,05	59,98	$p=0,01$
Stage (%)			
In situ	5	9,37	$p<0,05$
Stage I	31	25,1	
Stage II	14	17	
Stage III	14	14,74	
Stage IV	25	17,45	
Unknown	11	16,23	

Graphic 1. Tumor location proportions



## Conclusions

- Cancer diagnosis at advanced stages was more frequent in patients with schizophrenia, even though they were diagnosed at younger ages (specially for lung, colorectal and bladder cancer).
- Patients with schizophrenia had a smaller percentage of prostate cancer in our group. As it has been described, this could be an effect of the hormonal changes produced by antipsychotic drugs.
- There was a higher percentage of cervix cancer in schizophrenic patients. A possible explanation could be an insufficient fulfillment of the recommended screening plan in these patients.
- Further studies are needed in this area to understand the biological relations between cancer and schizophrenia in order to improve the screening and provide an individualized care.

## References

- Li, H., Li, J., Yu, X., Zheng, H., Sun, X., Lu, Y., ... Bi, X. (2017). The incidence rate of cancer in patients with schizophrenia: A meta-analysis of cohort studies. *Schizophrenia Research*.
- Zhuo, C., Tao, R., Jiang, R., Lin, X., & Shao, M. (2017). Cancer mortality in patients with schizophrenia: systematic review and meta-analysis. *The British Journal of Psychiatry: The Journal of Mental Science*, 211(1), 7–13.