Health Prob Civil. 2026, Volume 20, Issue 2
ISSN 2353-6942, eISSN 2354-0265

Thyroid cancer and its association with psychiatric disorders

Jakub Kuśmierski[1(A,B,C,D,E,F)], **Martyna Kuśmierska**[2(A,B,C,D,E,F)]

[1]Faculty of Medical Sciences in Zabrze, Medical University of Silesia in Katowice, Poland
[2]Independent Public Health Care Facility, Municipal Hospital Complex in Chorzów, Poland

Authors' contribution:
A. Study design/planning
B. Data collection/entry
C. Data analysis/statistics
D. Data interpretation
E. Preparation of manuscript
F. Literature analysis/search
G. Funds collection

Dear Editor,

During our review of contemporary medical literature, we chanced upon an article authored by Qiu et al. [1], focusing on the link between thyroid cancer and major depression, schizophrenia, and bipolar disorder. We consider this topic highly significant, particularly given the large number of individuals affected by these disorders and the pressing need to comprehend their underlying pathophysiology.

According to the Global Cancer Statistics 2020, thyroid cancer ranked eleventh among all cancers, with 586,202 new cases and 43,646 deaths reported within the spectrum of 36 cancers in 2020 [2]. Thyroid cancer is divided into three primary histological categories: differentiated thyroid cancer, which includes papillary, follicular, and oncocytic thyroid carcinoma; medullary thyroid cancer, sometimes associated with multiple endocrine neoplasia type 2 syndromes; and anaplastic thyroid cancer, often arising from differentiated thyroid cancer and characterized by high mortality rates [3].

Major depression, schizophrenia, and bipolar disorder are highly impactful psychiatric conditions, each bearing substantial weight on individual well-being and societal health. Discussions surrounding genetic correlations among these disorders suggest that their current clinical boundaries may not adequately capture the interconnectedness of their underlying pathogenic processes, especially when examined from a genetic standpoint [4,5].

As the prevalence of psychiatric disorders and thyroid cancer continues to rise, a growing overlap between them has emerged, prompting us to further explore their relationship. In the study conducted by Qiu et al. [1], statistics

Tables: 0
Figures: 0
References: 5
Submitted: 2024 May 7
Accepted: 2024 May 8
Published Online: 2024 May 16

Keywords: thyroid cancer, bipolar disorder, major depressive disorder, schizophrenia, mental disorders

Kuśmierski J, Kuśmierska M. Thyroid cancer and its association with psychiatric disorders. Health Prob Civil. 2026; 20(2): 94-95. https://doi.org/10.5114/hpc.2024.139519

Address for correspondence: Jakub Kuśmierski, Faculty of Medical Sciences in Zabrze, Medical University of Silesia in Katowice, Poniatowskiego Street 15, 40-055 Katowice, Poland, e-mail: j.kusmierski@outlook.com

ORCID: Jakub Kuśmierski https://orcid.org/0009-0003-2031-3071, Martyna Kuśmierska https://orcid.org/0009-0005-5895-2471

from extensive genome-wide association studies to identify genetic variant loci linked to major depression, schizophrenia, bipolar disorder, and thyroid cancer were analyzed. A type of analysis called two-sample bidirectional MR was used to see if there is a link between major depressive disorder and thyroid cancer risk. Results, obtained by using two different methods, suggest that major depressive disorder might indeed increase the risk of thyroid cancer. The authors have also found a connection between genetic predisposition to schizophrenia and thyroid cancer. However, there was no evidence showing a causal relationship between bipolar disorder and thyroid cancer.

In conclusion, this study offers suggestive evidence indicating a positive association between major depressive disorder and schizophrenia with thyroid cancer, potentially carrying substantial clinical implications. Future studies are needed to clarify the biological mechanisms underlying these associations and to identify any potential confounding factors.

References:

1. Qiu R, Lin H, Jiang H, Shen J, He J, Fu J. Association of major depression, schizophrenia and bipolar disorder with thyroid cancer: a bidirectional two-sample mendelian randomized study. BMC Psychiatry. 2024; 24(1): 261. https://doi.org/10.1186/s12888-024-05682-7
2. Sung H, Ferlay J, Siegel RL, Laversanne M, Soerjomataram I, Jemal A, et al. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA: a Cancer Journal for Clinicians. 2021; 71(3): 209-249. https://doi.org/10.3322/caac.21660
3. Chen DW, Lang BHH, McLeod DSA, Newbold K, Haymart MR. Thyroid cancer. Lancet. 2023; 401(10387): 1531-1544. https://doi.org/10.1016/S0140-6736(23)00020-X
4. Anttila V, Bulik-Sullivan B, Finucane HK, Walters RK, Bras J, Duncan L, et al. Analysis of shared heritability in common disorders of the brain. Science. 2018; 360(6395): eaap8757. https://doi.org/10.1126/science.aap8757
5. Song J, Jonsson L, Lu Y, Bergen SE, Karlsson R, Smedler E, et al. Key subphenotypes of bipolar disorder are differentially associated with polygenic liabilities for bipolar disorder, schizophrenia, and major depressive disorder. Mol Psychiatry. 2024; 29: 1941-1950. https://doi.org/10.1038/s41380-024-02448-1