Interdisciplinary Research Efforts to Advance Neuropsychopharmacology and Mental Health

Mental disorders such as schizophrenia, depression, bipolar and anxiety disorders are leading causes of disability and multimorbidity in the modern society. In recent years, major advances were made in order to understand the molecular basis of these disorders aiming to discover potential new drugs. Unfortunately, the majority of these efforts have been unsuccessful. Many other studies have been focused on understanding the mechanism of action of drugs used for the treatment of neuropsychiatric disorders, such as antidepressants, mood stabilizers and antipsychotics using isolated systems. Many incredible discoveries were made which allowed us to develop better treatment options to improve the quality of life of patients struggling with these disorders.

Today, clinicians and scientists are combining forces to better understand different connections of the brain-body relationship that were refuted for many years because of the general idea of the brain as an independent and isolated tissue. The concept of a two-way relationship between depression and cardiovascular disease, or the gut-brain axis is only gaining more space and credibility. We are in the moment of understanding how our complex body is interconnected in the way that a single insult in a remote part of our body could lead to molecular changes in our brain.

We are also better understanding the side effects of distinct drugs, such as antidepressants, and their impact on a population with cardiovascular disease or the relationship between long-term lithium intake and cancer proliferation. More studies are still needed to confirm these suggestions; however, they are thought-provoking.

This thematic issue, devoted to the study of current pharmacological treatments involved in mental disorders introduce an interesting interface intended to explore (i) the safety limits of the use of antidepressants on cardiovascular function [1], (ii) the cross-talk between inflammation in depression and cardiovascular disease [2], (iii) the involvement of microbiota in the etiopathogenesis of mental illness [3], (iv) the relationship between lithium intake and cancer proliferation [4] and (v) the applicability of targeting GSK-3β for several incurable neuropsychiatric disorders [5].

It is evident that science reached a time where scientists and clinicians are combining strengths to better comprehend the molecular basis of pharmacological treatments to study the diseases as they occur; in combination, and not isolated. In this new era of technology and information, combining forces in a multidisciplinary environment to understand the pathological basis will only improve the treatment options and the quality of life of patients with psychiatric disorders.

REFERENCES


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