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## The dilemma of antipsychotics prescription for schizophrenia and the efforts to develop a more comprehensive approach of psychosis

O dilema da prescrição de antipsicóticos para a esquizofrenia e os esforços para o desenvolvimento de abordagens mais abrangentes na psicose

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In the 19<sup>th</sup> century, Emil Kraepelin had already recognized the neurodegenerative aspect of schizophrenia. Hence, the condition was called *Dementia Praecox*. Currently, the most accepted theories hold that this neurodegenerative aspect is related to neurodevelopmental changes, and these elements are documented by anatomical and functional evidence collected by imaging tests and laboratory analysis<sup>1</sup>.

Schizophrenia onset usually starts in adolescence and early adulthood, and thus require a continuous and long-term treatment. The use of antipsychotics from the mid-twentieth century allowed significant improvement of positive symptoms, shifting treatment approach, in most cases, from an asylum-model to an outpatient rehabilitation direction. Typical antipsychotics have certainly changed the course of the disorder of many patients, as it in addition to controlling symptoms, also prevent further acute psychotic episodes. Therefore, it reduces neurotoxicity resulting from acute states, consequently reducing neurological losses.

However, long-term use of typical antipsychotics can often cause adverse effects. Among the primary effects are extrapyramidal motor effects, from parkinsonism to more permanent ones such as tardive dyskinesia. In this regard, atypical psychotics emerged with two purposes, to avoid the iatrogenic effects of their predecessors and improve the negative symptoms of schizophrenia. This often causes more harmful on the long course of the disorder than positive symptoms. Nevertheless, typical antipsychotics would present another problem in the long term: metabolic effects. In this issue of JBP, the review conducted by Pscheidt et al.<sup>2</sup> analysing 71 studies on the subject, identified that the use of typical and atypical antipsychotics for the treatment of schizophrenia is associated with glycaemic and lipid alternations, metabolic syndrome, hypertension, weight gain and cardiovascular morbidity. Additionally noted, such changes are often underdiagnosed and undertreated in this population, causing a considerable increase in mortality from cardiovascular disease among patients treated with antipsychotic agents, compared to the general population. As a result, schizophrenia's treatment management continues to present us with the challenge of adjusting initiatives to reduce and improve the disorder's cognitive and volitional losses and the caution to not cause iatrogenic conditions that result in morbidity and mortality.

In this way, in addition to using appropriate doses of antipsychotics in the clinic and not neglecting the physical health of patients with schizophrenia. It is yet possible to expand the more comprehensive and clinical therapeutic actions, as in the case of greater identification and treatment of psychiatric comorbidities<sup>3,4</sup>, in addition to multidisciplinary stimulation and recovery strategies. Not everything someone with schizophrenia feels is caused by schizophrenia and this includes many of their psychiatric complaints. Having this principle as a starter point can help therapists not respond to demands by always solely adjusting the prescription of antipsychotics, thus avoiding the use of increasing doses.



In the scientific research field, initiatives that seek to assess other agents may soon help to alleviate the dilemma of loss reduction versus long-term effects of antipsychotics. Thence, the relevance of the Okamoto *et al.*<sup>5</sup> study is identified in this number. The researchers conducted a study in rat models of schizophrenia to analyse the possibility of beneficial effects of ascorbic acid in schizophrenia. In the nervous system, this compound acts in the antioxidant defence by eliminating reactive oxygen and nitrogen species produced by cellular metabolism. Although vitamin C alone has not shown any benefit, the combination of antipsychotic and vitamin C showed an effect, presenting itself as a possible adjuvant agent in the treatment.

Scientific efforts are fundamental to the development of medical treatments. In the case of schizophrenia, the identification of long-term adverse effects has shown the imperative need to reduce dependence on antipsychotics as therapeutic agents. If, on the one hand, such reduction appears to be promising through several alternatives, on the

other hand, the treatment of psychosis has become more extensive and complex, requiring from the clinician constant updating for a more modern practice and comprehensive treatment in mental health.

## **REFERENCES**

- Lieberman JA. Pathophysiologic mechanisms in the pathogenesis and clinical course of schizophrenia. J Clin Psychiatry. 1999;60 Suppl 12:9-12. PMID: 10372603
- Pscheidt SL, Zardeto HN, Sá Junior AR, Schneider IJC. Doenças cardiovasculares e uso de antipsicóticos na esquizofrenia: uma revisão. J Bras Psiguiatr. 2022;71(3):253-72.
- Veras AB, Kahn JP, eds. Psychotic Disorders: Comorbidity Detection Promotes Improved Diagnosis and Treatment. Elsevier; 2021.
- Veras AB, Kahn JP. Psychoses: The 5 comorbidity-defined subtypes. Current Psychiatry. 2022 March;21(3):22-31. doi: 10.12788/cp.0221
- Okamoto JN, Martins MLWG, Henna Neto J. A vitamina C na esquizofrenia apresenta benefício? Estudo preliminar com análise comportamental em ratos. J Bras Psiquiatr. 2022-71(3):186-92