Case study of a patient presenting both type II bipolar affective disorder and Klinefelter syndrome

H. Delavenne¹, J.M. Khoury¹, F. Thibaut² and F.D. Garcia¹,³

¹Departamento de Psiquiatria e Programa de Pós-Graduação em Medicina Molecular, Universidade Federal de Minas Gerais, Belo Horizonte, MG, Brasil
²Department of Psychiatry, University Hospital Cochin (site Tarnier), University of Paris-Descartes, INSERM U 894 Centre Psychiatry and Neurosciences, Paris, France
³Institute for Research and Innovation in Biomedicine, Rouen University, INSERM Unit 1073, Rouen, France

Corresponding author: F.D. Garcia
E-mail: fredgarcia@ufmg.br

Received June 10, 2016
Accepted August 8, 2016
Published October 17, 2016
DOI http://dx.doi.org/10.4238/gmr15048872

Copyright © 2016 The Authors. This is an open-access article distributed under the terms of the Creative Commons Attribution ShareAlike (CC BY-SA) 4.0 License.

ABSTRACT. Klinefelter syndrome (KS) is the most common sex chromosomal disorder with an estimated prevalence of 1 in 500-1000. Increased incidences of anxiety, depression, substance abuse, psychotic and behavioral disorders, and sexual disorders have been reported in patients with KS. The aim of this case study was to report a case of a man with untreated KS who was also diagnosed with type II bipolar disorder. This case report raises awareness regarding psychiatric diagnoses that may be associated with such a highly prevalent
condition. A 46-year-old man who had previously been diagnosed with an untreated KS was examined in our Psychiatric Department with an acute hypomanic episode. Clinical improvement was observed within 4 days and psychiatric symptoms were resolved in 7 days without use of medication. A psychiatric history of a depressive episode and at least two hypomanic episodes, as well as a family history of two relatives diagnosed with bipolar disorder, strongly suggest that our patient has type II bipolar disorder. Bipolar disorder may be a comorbid disorder in patients with KS. Routine screening for mood disorders and appropriate referral and evaluation should be performed. Future genetic research is warranted to explore why some chromosomal abnormalities (e.g., duplications), especially those located on the X chromosome, such as Klinefelter syndrome, may be associated with a bipolar or psychotic disorder in some individuals but not in others.

**Key words:** Klinefelter syndrome; Sex chromosomal disorder; Bipolar disorder