

Abstract

Background: Depression is a common and important mental disorder, for its global burden of disease and risk for diagnostic conversion to bipolar disorder and schizophrenia spectrum disorders. Study of diagnostic conversion and its risk factors for patients with first-episode depression is important for early identification and intervention. Locally, there is scarce relevant cohort data for first-episode depression. **Aims:** This study aims to assess the diagnostic instability of first-episode depression among adult patients presenting to secondary psychiatric care in Hong Kong and to determine the risk factor for diagnostic conversion, with focus on bipolar disorder and schizophrenia spectrum disorder. **Methods:** We conducted a retrospective cohort study by reviewing the clinical records of adult patients with first-episode ICD-10 depression who received psychiatric care between 1st January 2005 and 31st December 2006 and following up their progression until the development of diagnostic conversion to bipolar disorder or schizophrenia spectrum disorders, loss to follow-up, transfer-out, death, or end of the study on 31st December 2016. An expert panel of senior psychiatrists, together with the use of the Bipolarity Index were adopted to improve the accuracy of the reviewed ICD-10 diagnosis. Kaplan Meier survival analyses was performed to estimate the incidence of diagnostic

conversion. Potential risk factors for diagnostic conversion were tested in Cox regression analyses with risk expressed as adjusted hazard ratios. Results: Among the 353 adult patients with first-episode depression, the cumulative incidences of diagnostic conversion to bipolar disorder and schizophrenia spectrum disorder were respectively 7.5% and 4.4% at 10 years. The following variables were significant independent predictors for diagnostic conversion to bipolar disorder: Antidepressant-induced hypomania (adjusted HR=14.41), family history of bipolar disorder (adjusted HR=5.81), and recurrence of depression (adjusted HR=4.36), while those to schizophrenia spectrum disorder included: Age of onset below 30 years old (adjusted HR=6.53) and history of illicit drug use (adjusted HR=4.07). The presence of severe symptoms at onset predicted diagnostic conversion (adjusted HR=8.63) but had no discriminatory value as to what diagnostic entity to convert. Conclusion: Diagnostic instability was not uncommon among adult patients with first-episode depression in Hong Kong and there were significant risk factors associated with diagnostic conversion to bipolar disorder as well as schizophrenia spectrum disorders. Early detection strategy is important and feasible.

Key words: First-episode depression, diagnostic conversion, diagnostic instability