

Prospective risk and protective factors associated with progression from major depression to bipolar disorder, a 11-year national longitudinal study in Taiwan

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Background It has been amply documented that as many as 69% of bipolar disorder patients had received improper diagnoses. However, recent two large national studies about progression from major depression to bipolar disorder in Denmark and Korea didn't align with the result, 22.5%, raised by a systematic review and meta-analysis in 2017.

Aims & Objectives There are few long-term studies investigating factors associated with diagnostic progression from major depressive disorder (MDD) to bipolar disorder (BD). We conducted a 11-year longitudinal study to examine the incidence of diagnostic progression to BD and its associated factors.

Methods Between January 1, 2001, and December 31, 2010, we enrolled patients with MDD and followed up until December 31, 2011 from the Taiwan National Health Insurance Research Database. Cox regression analysis was performed to examine risk/protective factors associated with the progression from MDD to BD.

Results A total of 130,793 patients with MDD were included, and 10.8% (n=14,187) converted to BD. During the 11-year follow-up period, the conversion rate from MDD to BD was 14%. We identified 13 potential risk factors for BD conversion, namely higher level of antidepressant resistance (hazard ratio: 2.19, confidence interval: 2.08-2.31), followed by mental comorbidities of cluster B personality disorder (1.88, 1.79-1.96), obesity (1.44, 1.35-1.54), mental comorbidities of cluster C personality disorder (1.43, 1.26-1.63), family history of bipolar disorder (1.93, 1.81-2.07), poorer socio-economic status (1.39, 1.32-1.45), mental comorbidities of alcohol use disorder (1.37, 1.31-1.44), mental comorbidities of attention deficit hyperactivity disorder (1.32, 1.20-1.46), mental comorbidities of substance use disorder (1.30, 1.23-1.37), family history of schizophrenia (1.23, 1.14-1.33), family history of major depressive disorder (1.07, 1.02-1.12), more mental health clinical visits per year (1.04, 1.04-1.05), and younger age (1.01, 1.01-1.02).

Discussion & Conclusion Psychiatrists need to be aware of the risk of progression to BD among patients with MDD who also had the above 13 potential risk factors.