

learn about mental illness, and their own current mental health issues (each scored on a scale from 1 to 4: 1 = none, 2 = slight, 3 = moderate, 4 = high). This study was approved by the ethics committee of the National Epilepsy Center, Shizuoka Institute of Epilepsy and Neurological Disorders. All questionnaires were anonymous and completed in privacy. All subjects were informed that participation was completely voluntary and return of the questionnaire implied consent.

Spearman's rank correlation coefficient analysis demonstrated that stigma score was significantly correlated with level of knowledge of the law ( $P = 0.003$ ), although the effect size was small (Spearman's  $r = 0.17$ ). Multiple regression analysis revealed that knowledge of the traffic law and current mental health issues were significant predictors of stigma score ( $P < 0.05$ ), with small effect sizes ( $\beta = 0.13$  and  $0.12$ , respectively). The results regarding variance inflation factors did not exhibit multicollinearity.

Overall, nursing students with higher levels of knowledge of the law, and those with current mental health issues, felt more stigmatized. Thus, a correlation between law changes and stigma toward mental illness was suggested.

This study involved several limitations. First, the cross-sectional design could not address causal relations. Second, caution should be exercised in generalizing our findings because participants were nursing students. Third, the effect size of the knowledge about the law on stigma was small.



Our findings provide new insights into law change as a factor related to stigma associated with mental illness in Japan where various anti-stigma initiatives have been conducted.

#### Disclosure statement

The authors declare no conflicts of interest associated with this manuscript.

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Yukako Nakagami, MD <sup>1,2</sup> Genichi Sugihara, MD, PhD,<sup>1</sup>  
Hironori Kuga, MD, PhD, MPH <sup>2,3</sup> Hidehiko Takahashi, MD, PhD<sup>1</sup> and  
Toshiya Murai, MD, PhD<sup>1</sup>

<sup>1</sup>Department of Psychiatry, Kyoto University Graduate School of Medicine, Kyoto, <sup>2</sup>Japan Young Psychiatrists Organization, Tokyo, Japan, and <sup>3</sup>Department of Mental Health, Johns Hopkins University School of Public Health, Baltimore, USA  
Email: nakagami-kyt@umin.ac.jp

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## Case of drug eruption during treatment with lithium and lamotrigine implicating a possible role of additives in the lithium tablet

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Lithium treatment causes drug eruptions in a few patients. Mohandas and Rajmohan<sup>1</sup> suggest that acneiform eruptions, psoriasis, maculopapular eruptions, and follicular eruptions are the most common cutaneous

reactions to lithium. Here, we report a case of drug eruption during treatment with lithium and lamotrigine, implicating a possible role of additives in the lithium tablet. Written informed consent was obtained from the patient for publication of this report.

A 77-year-old depressive woman with bipolar II disorder according to DSM-5 criteria was admitted to our university hospital. A combination of lamotrigine and lithium provided partial relief of depressive symptoms. However, when we increased the lamotrigine and lithium dose to 75 and 300 mg, respectively, generalized millet-sized erythematous papules appeared. We consulted a dermatologist who suspected a drug eruption and instructed us to discontinue lithium and lamotrigine. After both drugs were discontinued, the eruption disappeared. A drug-induced lymphocyte stimulation test (DLST) was performed, with a positive response to both lithium and lamotrigine. At that time, we speculated that additives in the lithium tablet could have induced such a drug eruption. Therefore, a DLST was reapplied using a generic lithium drug, whose additives (e.g., the absence of paraffin) were at least partially different from those of the brand name drug. As expected, the result was negative. Subsequently, this generic lithium was administered after explaining the situation and obtaining consent from the patient and her family. No eruptions appeared and depressive symptoms were improved.


In this case, strictly speaking, there are four possibilities: (i) only lamotrigine caused the drug eruption; (ii) only the brand name lithium drug caused it; (iii) both caused it; or (iv) it was not a drug eruption. The result of a DLST can be affected by the time after drug eruption and we did not test both the brand name drug and the generic drug at the same time. The different results of the DLST between these two forms could also be due to the different time points. Therefore, we could not conclude that the brand name drug of lithium carbonate was responsible for the eruption. If only lamotrigine had caused the patient's drug eruption or if it had not been a drug eruption, our strategy might have been useless and the brand name lithium drug could have been used again. However, if only the brand name lithium drug or both the brand name lithium drug and the lamotrigine had caused the drug eruption, the present findings suggest that lithium can be continued by switching from a brand name drug to a generic drug in some patients.

#### Disclosure statement

Dr. Terao declares lecture fees from Taisho Toyama Pharmaceutical. The other authors declare no conflicts of interest.

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Tsuyoshi Kugimiya, MD Kentaro Kohno, MD, PhD   
Nobuyoshi Ishii, MD, PhD Takeshi Terao, MD, PhD  
Department of Neuropsychiatry, Oita University Faculty of Medicine  
Oita, Japan

Email: kentarakohno@oita-u.ac.jp  
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## Case of risperidone-induced tardive parkinsonism

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Parkinsonism is a clinical disorder that can occur after initiation of anti-psychotic treatment, and is characterized by tremor, akinesia, bradykinesia, and muscle rigidity. The development of parkinsonism symptoms is dose dependent and occurs in approximately 20–40% of patients. Tardive parkinsonism (TP) is a controversial condition where parkinsonism