Letters to the Editor

Augmentation of Clozapine With ECT: Observations From India

TO THE EDITOR: We took note of the important findings presented by Georgios Petrides M.D., et al. (1), published in the January 2015 issue of the *Journal*, on the use of electroconvulsive therapy (ECT) as an augmentation strategy in clozapine-resistant patients. Because 40%−70% of patients demonstrate only a partial response to clozapine (2), understanding the treatment strategies beyond clozapine is of paramount importance. There are few studies using ECT as augmentation, yet results have been promising (3, 4). This suggests that more data providing information on augmentation of clozapine in schizophrenia would offer an important addition to the existing literature. Consequently, we would like to share our experience with 11 patients from a tertiary care hospital in North India in whom ECT was used to augment treatment with clozapine. In these patients, bitemporal modified, thrice-weekly ECT was started following 12 weeks of a stable clozapine dose, after they had shown a partial response to clozapine. All patients had a diagnosis of schizophrenia, with paranoid subtype (63.6%) being the most common. The mean age was 32.7 years (SD=6.4), with a range of 21–41 years, and 63.6% were men. The majority of these patients were unmarried (N=8 [72.7%]), currently unemployed (N=8 [72.7%]), from nuclear families (N=9 [81.8%]), and resided in an urban locality (N=9 [81.8%]). The mean number of years of education was 12.45 (SD=3.61; range: 5–17).

The total duration of illness ranged from 13 months to 18 years (mean=123.4 months [SD=60.5]). The treatment history in this sample involved the use of clozapine for a range of 13 weeks to 12 years, and all patients were demonstrating only a partial response at the time of initiating ECT. The mean number of ECT treatments administered was 12.81 (SD=6.6), with a range of 6–30. The mean duration of current used was 2.3 seconds (SD=1.4), with a mean charge of 310.5 coulombs (SD=198.4), and the mean motoric seizure duration was 39.9 seconds (SD=7.1) for the entire ECT course.

More than 90% of the patients had improvement (12 out of 13) in their clinical status as assessed by the Positive and Negative Syndrome Scale (PANSS). Response criterion was defined by >20% reduction in the PANSS total score. The mean reduction in the PANSS total score was 23.2 points from baseline (35% improvement) after the course of ECT. The mean PANSS score was 77.1 (SD=15.1) prior to ECT, which was reduced to 52.8 (SD=9.6). Positive symptoms as assessed using PANSS were reduced by 9.9 (SD=5.1) points, and there was a reduction by 4.1 (SD=2.2) and 12.5 (SD=5.4) points in negative symptoms and general psychopathology scores, respectively. In terms of complications, two patients developed prolonged seizures, which were managed with lorazepam, and one patient developed a transient raise in blood pressure, which was managed with esmolol. Additionally, two patients experienced brief (approximately 2 hours) post-ECT confusion. After the ECT augmentation was completed, patients maintained improvement for a follow-up duration ranging from 6 months to 9 years, and all continued to receive clozapine (mean dose: 339.8 mg/day [SD=120.8]; range: 175–550).

Like the findings reported by Petrides et al., our observations also support the beneficial effect of ECT as an augmentation strategy for patients with treatment-resistant schizophrenia who partially respond to clozapine. Accordingly, augmentation with ECT should be considered as an important treatment option in this subgroup of patients.

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Abuse and Diversion of Gabapentin Among Nonmedical Prescription Opioid Users in Appalachian Kentucky

TO THE EDITOR: Gabapentin is approved by the Food and Drug Administration as an adjunctive antiepileptic for refractory partial seizures and as an analgesic for postherpetic neuralgia. It is presumed to interact with calcium channels to regulate various neurotransmitter release (1) and is commonly prescribed off-label for other pain syndromes, as well

as mood and anxiety disorders (2), with few reports of abuse (2–5). However, with decreasing availability of commonly abused prescription opioids, it has been suggested that nonmedical users of prescription opioids are substituting other licit (6) and illicit (7) drugs for abuse.

For example, in a cohort of 503 adults reporting current, nonmedical use of diverted prescription opioids in Appalachian Kentucky (and not presently in substance abuse treatment; study details are described elsewhere [8]), 15% of participants identified using gabapentin specifically "to get high" in the past 6 months. This represents a 165% increase in use compared with reports from 1 year prior and a 2,950% increase since 2008 within this cohort. Participants reported using gabapentin an average of 25 of the past 30 days and were more likely than nonusers to be abusing immediate-release oxycodone (64.8% compared with 46.5%; difference in percentages [d]=18.3%; 95% Wald continuity corrected confidence interval [CI] =3.1%–31.5%), buprenorphine (44.4% compared with 26.0%; d=18.4%; 95% CI=4.3%–33.1%), and benzodiazepines (42.6% compared with 21.6%; d=21.0%; 95% CI=7.1%–35.7%) in the prior 30 days "to get high." There were no differences in past 30-day use of heroin, cocaine, and methamphetamine. Females (77.8%; d=17.3%; 95% CI=10.4%–24.6%) and participants reporting chronic medical conditions (48.2%; d=16.3%; 95% CI=1.8%–31.0%) were also significantly more likely to report gabapentin use. The two major sources of gabapentin were physicians (52%) and drug dealers (36%), and street costs were reported to be less than $1.00 per pill. Several volunteers reported use of dosages outside the range of standard medical care.

To our knowledge, this is the first prospective report of gabapentin abuse in an epidemiologic study of drug users. While gabapentin may be an appropriate treatment for some individuals (e.g., those with alcohol withdrawal, chronic pain), use for these reasons was not queried. Further systematic research (e.g., amount used, route of and motivations for use) is necessary to more fully understand the patient, provider, and public health implications of this new trend. Psychiatrists prescribing gabapentin should be aware of its abuse potential.

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CORRECTION

When the article "Synaptic Proteins in the Hippocampus Indicative of Increased Neuronal Activity in CA3 in Schizophrenia" by Wei Li et al. (doi: 10.1176/appi.ajp.2014.14010123) was posted online on January 13, 2015, a portion of the Author and Article Information section was left off: "Presented in poster format at the annual meeting of the Society for Neuroscience, San Diego, Nov. 9–13, 2013." This portion was reinstated for the article's online posting as part of the April 2015 issue.