

Bilateral electrode placement also seems to carry a higher risk for cognitive side effects (1, 2). In our study, follow-up analysis revealed that the unilateral ECT did not show significantly more cognitive side effects than the algorithm-based pharmacological treatment (3). These results further support the use of ECT for treatment-resistant depression. We assume that the relative low remission rate in our study reflects the chronicity and treatment resistance or the patient group included, but electrode placement may be of importance. This shows that more evidence-based knowledge is needed to optimize ECT treatment strategy in bipolar disorder.

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## Electroconvulsive Therapy Versus Pharmacotherapy for Bipolar Depression

TO THE EDITOR: The excellent study by Helle K. Schoeyen, M.D., Ph.D., et al. (1), published in the January 2015 issue of the *Journal*, compares the relative efficacy of a polymedication algorithm with electroconvulsive therapy (ECT) in the treatment of patients with bipolar depression. Despite the fact that their results show the superiority of ECT compared with their pharmacological algorithm on all three assessment outcome scales, the conclusion in their abstract merely states, “Remission rates remained modest regardless of treatment choice for this challenging condition.” An emphasis on a strict, dichotomous remission criterion downplays the clinically significant 74%

response rate in the ECT group compared with a 35% response rate in the medication group in this “challenging condition.”

As with the many options in their choice of medications, they chose the ECT treatment technique of right unilateral electrode placement and brief pulse stimuli, a less than maximally efficient treatment form that may have handicapped the ECT arm in terms of both speed of response and remission rate. Their mean of 10.6 ECT treatments to remission is substantially higher than the approximate mean of 6.0 in the electrode placement study published by the Consortium for Research in Electroconvulsive Therapy group (2). In that study, bilateral electrode placement was associated with a significantly faster speed of response than with either right unilateral or bifrontal electrode placements. For the seriously ill cohort of patients enrolled in the Norwegian study conducted by Schoeyen et al., strengthening the efficacy of the type of ECT used would likely have improved the results, further separating the ECT and pharmacotherapy groups.

Schoeyen et al. indicate that the most severely ill (and most suicidal) patients, for whom ECT is most clearly indicated and perhaps most effective, were excluded from their study because of liability and consent issues. But the patients who were included did volunteer. They were entitled to be informed about the most efficient forms of treatments and not to be disadvantaged for their decision. In real-world clinical settings, the option to use the most potent ECT techniques is an important aspect of optimized, ethical care (3).

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## Response to Kellner and Fink

TO THE EDITOR: We find the point made by Drs. Kellner and Fink regarding efficacy related to ECT treatment technique with reference to our study important and clinically relevant.

When planning our study, the status regarding efficacy and side effects of ECT treatment technique was suggestive but not conclusive of bilateral electrode placement compared with

high-dose unilateral electrode placement being more effective. Cognitive side effects related to ECT treatment, on the other hand, were understudied regardless of ECT treatment technique, but bilateral compared with unilateral electrode placement seemed to carry a higher risk for long-term cognitive side effects (1, 2). This was the reason for choosing the right unilateral electrode placement in our study.

The large-scale study by the Consortium for Research in Electroconvulsive Therapy (CORE) group (3) has since added further support to the notion that bilateral electrode placement may be more effective than unilateral electrode placement in terms of speed of decreasing depressive symptoms without being associated with more cognitive side effects. In line with this, Drs. Kellner and Fink argue that the higher mean number of ECT treatments in our study compared with that in the CORE study may represent the use of the less effective unilateral electrode placement. Although we cannot rule out such an effect, the difference in efficacy in terms of speed and remission between the two studies may have well been caused by the differences in patient population.

The final comment by Drs. Kellner and Fink that “in real-world clinical settings, the option to use the most potent ECT techniques is an important aspect of optimized, ethical care” gives an impression that this is a straightforward choice but does not take into account the increased risk for retrograde amnesia associated with bilateral electrode placement. We find that Allan Scott (4) balanced the evidence regarding efficacy and side effect when he commented in an editorial that “there is no ideal electrode placement,” but method has to be weighted against the clinical condition and cognitive risk profile.

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