Reviewer’s report

Title: ECT for manic state with mixed and psychotic features in a teenager with bipolar disorder and comorbid episodic OCD

Version: 0 Date: 12 Jul 2017

Reviewer: Axel Nordenskjöld

Reviewer’s report:

1. Do you believe the case report is authentic?

Yes

2. Do you have any ethical concerns? Please consider if local Institutional Review Board approval or ethical approval was obtained (if appropriate) and if the patient (or their parent or guardian in the case of children under 18) gave written, informed consent to publish this case and any accompanying images. A statement to this effect should appear in the manuscript.

Comments:

Under Swedish law, ethical approval can only be sought for activities within specific definitions of research involving interventions or the use of personal information. Non-interventional descriptions of outcomes of individual patients treated in routine care are not usually considered to be research under the law. I have no reason to question the authors statement that formal ethical approval was "not applicable" in this case. There are nevertheless some ethical issues that can be raised and discussed.

a) There is a potential possibility that the patient could be identified. As the authors point out, ECT is a rare intervention among minors. Probably, there is only one middle-eastern girl with OCD and mania treated in Malmö the last few years. Therefore, if you know of that girl, you could find additional information in this case-report. However, if someone knows enough to be able to identify the patient, for the most part, the patient or family is unlikely to suffer any harm from whatever more is learned.

b) That said, I have some difficulty in finding the balance between ethical risks and benefit in a sentence not written here but confidential to the editor. I hope the editor can forward this information to the authors without it being made public.

c) Consider to include a few sentences of the ethical risks and benefits of the case-report (which I think is favourable).

d) "Written informed consent was obtained from the patient's legal guardians for publication of this case report and any accompanying images. " Please also comment on if the patient was
informed of the publication of the case-report and if she was asked to provide consent. If she did not provide consent, discuss why it was not relevant in this case.

3. Does the Introduction explain the relevance of the case to the medical literature?

Yes

4. Does the article report the following information? Where information is missing, please specify.

a. The relevant patient information, including:

- De-identified demographic information (age, gender, ethnicity)
- Main symptoms of the patient
- Medical, family and psychosocial history
- Relevant past interventions and their outcomes

b. The relevant physical examination findings

c. Important dates and times in this case (if appropriate, organized as a timeline via a figure or table); if specific dates could lead to patient identification, consider including time relevant to initial presentation, i.e. initial presentation at T = 0, follow up at T = 1 month.

d. Diagnostic assessments, including:

- Diagnostic methods
- Challenges (e.g., financial, language/cultural)
- Reasoning and prognostic characteristics (e.g., staging), where applicable

e. Types and mechanism of intervention

f. A summary of the clinical course of all follow-up visits

Comments: It is adequate. A few suggestions:

I) Background, first paragraph: "possibly also some second-generation neuroleptics could induce or exacerbate mood instability and precipitating mania". Please provide a reference for this statement or, if it refers to your clinical experience, make this explicit.
II) Consider to refer to the comprehensive compilation of the evidence for the use of ECT among minors. "Electroconvulsive Therapy in Children and Adolescents"

by Neera Ghaziuddin (Editor), Garry Walter (Editor) ISBN-13: 978-0199937899

III) Inpatient care, course of acute illness:

a) "Unilateral ECT according to d'Élia was used with an up-titrated dose of 96.0-156.8 millicoulombs (mC)." Up-titrated could be interpreted to mean that the dose-titration method was used, which is unusual in Sweden. If dose-titration with a multiple (6?) of the seizure threshold was not used, I suggest that the word up-titrated is removed. Also, consider to report pulse-width, anesthetic, and ECT-device if available.

b) Consider to comment on the reasons (if any?) for maintaining the prescription of quetiapine after non-response to the agent.

5. Is the interpretation (discussion and conclusion) well balanced and supported by the case presented?

Comments: The discussion is interesting and the conclusions are backed by the data.

6. Is the anonymity of the patient protected? Please consider any identifying information in images such as facial features or nametags, whether the patient is named etc. If not, please detail below.

Efforts were made to preserve the anonymity of the patients. However, I do have a suggestion, see ethics above.

7. Is the Abstract representative of the case presented?

Comments:

Yes. The abstract is clear and well written.

8. Does the case represent a useful contribution to the medical literature?

Comments:

Yes. It highlights the potential benefits of ECT (and lithium) in the treatment of bipolar disorder among adolescents. ECT is probably underutilized in this patient-group. More experience and research in this patient group should be appreciated.
9. Additional comments for the author(s)?

**Level of interest**
Please indicate how interesting you found the manuscript:

An article of importance in its field

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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Please complete a declaration of competing interests, considering the following questions:

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If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

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