Reviewer’s report

Title: Acute psychosis as an initial manifestation of hypothyroidism: case report

Version: 2  Date: 2 August 2015

Reviewer: Bernardo Barahona-Correa

Which of the following best describes what type of case report this is?: None

Do you believe the case report is authentic?:

Yes, I do believe the case report is authentic, and that the clinical information provided by the authors is genuine

Do you have any ethical concerns?:

It is not clear from the manuscript whether the authors sought to obtain their patient’s informed consent to publish the case report. Moreover, it emerges from the manuscript that the patient was, in all likelihood, too ill to be able to give a fully informed consent, which means that consent should have been collected from a relative, or at least in the presence of a relative or legal representative

Is the Abstract representative of the case presented?:

Yes

Does the Introduction explain the relevance of the case to the medical literature?:

The authors should try to argue in more convincing terms why they think this case is worth publishing, since myxedema madness has been abundantly reported in the literature

Does the article report relevant patient information?: Yes

Does the article report relevant physical examination findings?: Yes

Does the article report important dates and times in this case?: No

Does the article report the diagnostic assessments?: No

Does the article report the types of intervention?: Yes

Does the article report a summary of the clinical course of all follow-up visits?: Yes
If any information is missing from the reporting, please detail it here.

The authors should describe the patient's psychotic symptoms in more detail, specifying, for example, in which sensory modality the patient was experiencing hallucinations, what was the content of his delusional beliefs (if any), how was his mood.

The authors also should describe the patients cognitive assessment in more detail. Was a formal neuropsychological evaluation performed? Did the authors use any of the universally available and well validated quantitative - Addenbrook Cognitive Examination, MMSE, Frontal Assessment Battery, Montreal Cognitive Assessment, etc? This is an essential piece of information in terms of differential diagnosis.

The image description is not clear. What is the nature of this subdural "effusion"? How do the authors explain its presence? Did the patient suffer a recent head trauma?

No information is provided on other causes of reversible dementia or acute delirium: folate or vitamin B12 deficiency, tiamin deficiency, etc

In the second paragraph of their case description the authors say that EEG activity "improved" (a better term would be became normalized), however they did not mention the EEG before, except in the abstract.

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

The authors must discuss, at least briefly, other possible (and likely) explanations for this case, namely:

1. frontal-temporal dementia (possibly behavioral variant) - this typically presents with behavioral changes and occasionally with late-onset psychosis, a typical finding is frontal lobe hypometabolism. The fact that the patient was allegedly working recently is no proof that he was cognitively well.

2. head trauma with subdural bleeding or subdural hygroma

Any of these two conditions could have been exacerbated by the hypothyroidism, eventually leading to an acute change in mental state. To discuss the differential diagnosis adequately, the authors must provide more details on the patient's cognitive state and recent history (reports of falls, etc).

Does the case represent a useful contribution to the medical literature?:

The case does not report a particularly uncommon or unknown association: psychosis and hypothyroidism. The presentation is somewhat unusual in that the psychosis appeared acutely over 3 days, and he case reminds us of the fact that hypothyroidism may not be clinically obvious and is not necessarily severe in myxedema madness.

Was written informed consent to publish this case obtained?: No
Is the anonymity of the patient protected?:
Yes

Additional comments to authors?:
It would be helpful to provide the readers with the MRI scan.
The authors are strongly advised to seek help from a native English speaker when they rewrite their manuscript. A few sentences on the pathophysiology of mixedema psychosis would also be interesting.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Not suitable for publication unless extensively edited

Declaration of competing interests:
I declare that I have no competing interests