Reviewer’s report

Title: The lab findings do not lie. (A Case Report of a patient with multiple electrolyte imbalances and mixed-acid base disorder posing a diagnostic dilemma)

Version: 0 Date: 16 Sep 2019

Reviewer: Vijayadershan Muppidi

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: no

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:

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

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.

Yes

7. Is the Abstract representative of the case presented?

Comments: yes

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

Comments: yes

9. Additional comments for the author(s)?
Dr Alabi et al have written a case about importance of lab findings. here are my comments

1. Case is well presented

2. pathophysiology has been well discussed

3. Needs english language revision at a few places

4. While explaining hypokalemia under discussion, "kalciuria" has been used. Should it be "kaliuresis" (renal excretion of potassium)?

5. conclusion could be restructured or rephrased as labs and investigations should be used in conjunction with history. History is paramount. Sometimes, patient do not provide accurate history but it does not decrease the importance of history taking

6. As to further the above argument, did the patient have asymptomatic bacteruria or UTI? Patient did not have symptoms pertaining to UTI. Here history is vital for clinical decision making whether patient needs antibiotics or not

Thank you very much

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

An article of limited interest

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

Needs some language corrections before being published
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No