Reviewer’s report

Title: Untreated primary hypothyroidism with simultaneous rhabdomyolysis, pericardial effusion, and sudden sensorineural hearing loss: a case report

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Reviewer: Mirjana Kocova

Reviewer's report:

Review

"Aggressive primary hypothyroidism with simultaneous rhabdomyolysis, pericardial effusion and sudden sensorineural hearing loss: a case report"

General comment: There are no novelty in this case report. Obviously, it is untreated patient with a Hashimoto thyroiditis with a development of well-known complications. Patients with a simultaneous appearance of mentioned symptoms and some others have been previously described in the literature (see also Kocova et al. JPEM 2015), The moderate interest in publication of this article might be the severe hearing loss, however, there are also some additional data needed.

Title: Hypothyroidism in this patient was untreated at least for a year after the diagnosis. Since it has characteristics of Hashimoto thyroiditis which develops slowly, previous symptoms might have been unrecognized even much longer. Any overt hypothyroidism becomes sever if untreated for a long time. Therefore instead of "severe" in the title should be replaced with "untreated"

1. Clinical presentation of the patient correspond to classical myxedema and this term should be used in the case description.

2. The increase of creatinine is probably the effect of rhabdomyolysis rather than acute kidney disease associated with hypothyroidism as described. In favor of this comment is the slight and short lasting increase of creatinine corrected fast after decrease of CK. It has been described and has to be clarified in the discussion.

3. Statin therapy in this patient appears in the manuscript first in the discussion. It should be given in the case description first together with the data on lipidogram.

4. Pericardial effusion before and after treatment should have been quantified (measured)
5. Acute hearing loss appeared one year after the diagnosis of hypothyroidism and might be a coincidence (no MRI or other tests have been performed to exclude a series of possible factors for predominantly one sided hearing loss). Hearing loss in patients with hypothyroidism as described by the largest series appears usually bilaterally at a subclinical level even at the onset of hypothyroidism (cit 17). The therapy applied does not guarantee healing, so it is not unusual for one sided hearing loss to remain, although authors present it as very unusual. One sided hearing loss in this patient, might be a coincidence and causing significant discomfort, a contributing reason for asking the repeated consultation in this patient with longstanding myxedema. It should be clarified and discussed in detail (see and cite Plontke SK, GMS Curr Top Otorhynolaryngol Head Neck Surg 2017;16, published online 2018 doi: 10.3205/cto000144).

6. Biochemical data are given only for a period of 20 days and TSH is still high. Although some data about the hearing after a year have been given, no data on thyroid function at that time are presented.

Table: too large, only abnormal data should be included. Data on the lipids should be given since the patient is taking statins as a possible cause for rhabdomyolysis.

Figures: Unusual combination of different findings, pre and post therapy findings should be combined.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript
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