Author’s response to reviews

Title: Identification of a novel mutation in PEX10 in a patient with attenuated Zellweger spectrum disorder: a case report

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Author’s response to reviews:

Dear Dr Michael Kidd,

Editor-in-Chief of Journal of Medical Case Reports

We hereby submit a revised version of our manuscript "Identification of a novel mutation in PEX10 in a patient with attenuated Zellweger spectrum disorder: a case report”. Thank you for the referee report on our manuscript, which led to improvements in the revised version.

Below are our comments and changes.

Responses to reviewer 1, minor comments:

1) The “top” differential diagnosis of the patient was polyneuropathy (not added to the manuscript).

2) No genetic tests were made before the NGS-panel (not added to the manuscript).

3) No pictures of the patient during development can be provided. However, MRIs are now included in the manuscript from 12 years of age (see below).

Page 4, Line 97-98. The following sentence was added:
MRI of the brain was repeated showing the same lesion as described at the age of 8 years (Figure 1).

Page 6, Line 125. Image of immunofluorescence microscopy of the alpha-catalase staining is added to the manuscript as Fig. 2.

Page 7, Line 140: Figure 1 has been changed to Figure 3.

Page 10, Line 219. The following has been added to the Acknowledgement section: and Dr Liz Ivarsson for providing the MRI.

Page 10, Line 225-226. “Availability of data and materials section” have been changed to:

All laboratory data and MRI relevant to this case report can be found in the “Case presentation” section of this report.

Page 14, Line 341-44

Figure legend added for the MRI (Fig. 1):

Fig. 1 Magnetic resonance imaging scans from patient with PEX10 defect (12 years of age). The magnetic resonance shows: a. Axial T2-weighted imaging and b. Coronal T2-weighted imaging revealing a central lesion in the mesencephalon (arrows), from the nucleus ruber dorsocaudally down to the cerebellar peduncles.

Page 14, Line 346-51

Figure legend added for the alpha-catalase staining (Fig. 2):

Fig. 2 Immunofluorescence microscopy analysis using antibodies raised against catalase, a peroxisomal matrix enzyme, in skin fibroblasts of a control subject (left panels) and the patient, F1453 (right panels) cultured at 37°C (upper panels) and 40°C (lower panels) for two weeks. At 37°C cells of the patient reveal a normal peroxisomal staining in most cells (a representative picture is shown), whereas at 40°C catalase staining becomes cytosolic confirming the peroxisome biogenesis defect in the patient.

Page 14, Line 353

Fig. 1 became Fig. 3

In the revised version 5 Tables/Figures are now included, 2 more than recommended in the author instructions.

Sincerely Yours,

Maria Blomqvist