Author's response to reviews

Title: Graves' disease in monozygotic twins - a case report

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Author's response to reviews:

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BMC Endocrine Disorders
Editor-in-Chief

Dear Editor

MS 5735779628868167-Revision 1
Graves' disease in monozygotic twins – a case report

We thank you for your e-mail from April 11, 2013.

Find below the answers to the questions raised by the reviewers.

All changes are marked in red in the revised manuscript.

We hope the revised manuscript will be suitable for publication in ‘BMC Endocrine Disorders’.

Yours sincerely,

Beat Knechtle
Editorial comments:

Please revise your manuscript to clarify that written informed consent was provided by both patients for the publication of this report and any clinical images.

Answer: We agree with the editor and inserted a section at the end of the manuscript ‘Written informed consent was obtained by both patients for the publication of this case report and any accompanying images’.

Reviewer’s report

Title: Graves’ disease in monozygotic twins - a case report
Version: 1
Date: 5 February 2013
Reviewer: Malgorzata M. Wasniewska

Reviewer’s report:

The Authors, Rust et al, reported the rare condition that hyperthyroidism was found in the mother of twins and both of her twin children. The monozygotic female twins developed consecutively Graves’ disease (GD) within five years in the young adult age. One year before the diagnosis of GD was established in the first twin; the mother developed a toxic thyroid nodule with hyperthyroidism and after 6 years presented also rheumatoid arthritis.

It is known that DG had a heritable components and the aggregation of thyroid autoantibodies seemed to be genetically determined.

Also both the twins and the mother were cigarette smoking, so the impact of environmental triggers such a cigarette smoking in the pathogenesis of GD had been discussed.

The results of the study are interesting and support the hypothesis that a genetic factor might be of great importance in etiology of GD.

The design and the methods of the study have been well described.

The presentation of the results with graphic and tables is clear. The literature
The Authors, Rust et al, reported the rare condition that hyperthyroidism was found in the mother of twins and both of her twin children. The monozygotic female twins developed consecutively Graves' disease (GD) within five years in the young adult age. One year before the diagnosis of GD was established in the first twin, the mother developed a toxic thyroid nodule with hyperthyroidism and after 6 years presented also rheumatoid arthritis. It is known that DG had a heritable component and the aggregation of thyroid autoantibodies seemed to be genetically determined. Also both the twins and the mother were cigarette smoking, so the impact of environmental triggers such as cigarette smoking in the pathogenesis of GD had been discussed. The results of the study are interesting and support the hypothesis that a genetic factor might be of great importance in etiology of GD. The design and the methods of the study have been well described. The presentation of the results with graphic and tables is clear. The literature references are proper. In my opinion that Case Report made a contribution to medical knowledge and have education value and fulfilled the Editorial criteria for Case Report in BMC Endocrine Disorders.
Reviewer: Bingyin Shi

Reviewer's report:
The article reported the unusual cases of monocygotic female twins developing Graves' disease consecutively. The two cases further show that genetic background in the onset of the disease plays a very important role.

The weaknesses of the article are:
1. The references cited in the first paragraph in the Background are not strong enough to support the grounds of argument.
   Answer: We inserted that hyperthyroidism is less frequent in general population the hypothyroidism. Then, we inserted the aspect of genetic susceptibility to autoimmune thyroid disease.

2. Lack of marriage and reproductive history, especially associated with the onset time of the disease.
   Answer: We agree with the expert reviewer and inserted that both twins were not married.

3. For case A it cannot say absolutely that it is Graves' disease due to very sensitive response to antithyroid drug and relatively short overall treatment time.
   Answer: The endocrinologists were sure that both twin A and twin B have Graves' disease.

4. There are more colloquial components.
   Answer: We agree with the expert reviewer and improved the language.

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

Quality of written English: Needs some language corrections before being published
   Answer: We agree with the expert reviewer and improved the language.

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests: NO

Reviewer's report
Title: Graves' disease in monozygotic twins - a case report
Version: 1
Date: 20 March 2013
Reviewer: Leszek Szewczyk

Reviewer's report:
In my opinion this case presentation is interesting from clinical point of view. There are limited data in closely related research studies in this field.

Minor Essential Revisions
Spelling mistake: in abstract case presentation: against "monocygotic" will be "monozygotic"
Answer: We agree with the expert reviewer and changed as requested
In "practical application": it seems, that conclusions regarding the importance of environmental factors (smoking) are not justified in this case presentation
Answer: We agree with the expert reviewer and insert in the conclusions of the ‘Abstract’ that both the mother and the twins were cigarette smokers, which is considered as an environmental factor to trigger this disease.
Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:
I declare that I have no competing interests in relation to the reviewed paper

Reviewer's report
Title: Graves' disease in monozygotic twins - a case report
Version: 1
Date: 28 March 2013
Reviewer: Maria Cristina Vigone

Reviewer's report:
MAJOR COMPULSORY REVISIONS
- The argument is interesting, but the article does not add anything new to the literature.
Answer: We checked PUBMED and found no case report where twins were
described with Graves’ disease and the mother had a toxic thyroid nodule with hyperthyroidism. We therefore found that a case description would be of interest.

- In literature there are some articles about genetic susceptibility to autoimmune thyroid disease; it would be important to refer to the most recent references.
Answer: We agree with the expert reviewer and inserted as requested.

- Article does not distinguish between somatic mutations in toxic adenoma and germ cell mutations in autoimmune hyperthyroidism.
Answer: We agree with the expert reviewer and inserted this aspect as a limitation.

MINOR ESSENTIAL REVISIONS

- I don’t understand the usefulness of the description of the surgery of twin A and twin B.
Answer: In a case report the history of a patient is important. We therefore inserted the most important diseases and operations.

- Figure 1 and Figure 2 don’t serve for a better understanding of the text. The trend of TSH and fT4 of twins adds nothing to the Article.
Answer: The other three reviewers found merit in the presentation of the hormones; we therefore left the figures in the manuscript and added actual values.

- The English language should be reviewed.
Answer: The manuscript was checked again by a native English speaker.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.