Author’s response to reviews

Title: Preoperative clinical factors and visual outcomes following orbital decompression with dysthyroid optic neuropathy

Authors:

Mizuki Tagami (tagami.mizuki@med.osaka-cu.ac.jp)

Shigeru Honda (honda.shigeru@med.osaka-cu.ac.jp)

Atsushi Azumi (azumi@kobe-kaisei.org)

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Author’s response to reviews:

Point by point response to reviewers

#Reviewer 1

*What is the average measurement of Hertel in each group?

Response: We have added the average measurement of Hertel in each group in table1. Interestingly, there was no difference between the two groups.

*Is there any patients with high IOP secondary to Thyroid Eye Disease?

Response:

We have added secondary high IOP patients in each group in table1. When there were corneal problems, there were many outliers in the measurement. In that case, NA(No Answer) were defined.

*How many patients got thyroidectomy and/or RAI therapy?

Response:
There were no records of any thyroid surgery before DON treatment. There were four patients after RAI, two patients for each group. Because the number is small, it is not described in the table, but described in the result part.

P6L110

There were no records of any thyroid surgery before DON treatment. There were four patients after RAI, two patients for each group.

*What is the profile of the patients' Thyroid Antibodies?

Response:

TRAb Value showed a significant difference between the two groups. After all, the higher TRAb, the higher the possibility of urgent surgery. The problem is that there are many patients whose have not been measured on the records. We have added the following reference and some discussion.

Thyroid-stimulating immunoglobulins indicate the onset of dysthyroid optic neuropathy.

Ponto KA, Diana T, Binder H, Matheis N, Pitz S, Pfeiffer N, Kahaly GJ.

J Endocrinol Invest. 2015 Jul;38(7):769-77

P5L77

Serological data including TARb (Thyrotrophin receptor antibody) was also analyzed.

P9L175

Another feature of this study is that the higher the value of TRAb, the more likely necessary to urgent surgery. In a few reports, the relevance of TSAb to DON has been described in previous case series[15]. This is a clinical bio-marker that is significant in clinical practice in GO.
#Reviewer2

1) It may be helpful to explain in the methods (or in the inclusion/exclusion criteria) if any of the patients had presented previously either to this or another institution and/or been treated for thyroid eye disease in the past. Or were all of these patients presenting for the first time? It is also a bit hard to follow how long the patients had shown symptoms/signs of active disease.

Response:

We completely agree. The description was not enough.

We have added following sentence.

L101 Among them, ten patients had received steroid therapy or radiation therapy, or both for GO in the past.

2) Perhaps it would be helpful to keep measurement/definition of visual acuity consistent.

We have added following sentence.

P5L95

The corrected decimal BCVAs were converted to the LogMAR scores for statistical analysis.

3) May be worth discussing what exactly the "adverse events" were when writing: "...associated with a doubling of the rate of adverse events..." in regards to "highest dose" steroid.

We have added following sentence.

p7L152

the highest dose was associated with a slightly greater frequency of adverse events; with a high single (&gt;0.5 g) and/or cumulative dose (&gt;8 g) of intravenous GCs associated with a doubling of the rate of adverse events i.e. viral pneumonia
4) Were steroids avoided in any patients with possible contraindications (such as patients with diabetes)?

Even in severe diabetes, DON is a threatening condition that threatens vision. Therefore, we provide consultation to the diabetic department and administer steroids for 2 weeks while strict control by insulin introduction and body fluid management.

5) Any thoughts as to why there was no association between history of smoking and need for surgical intervention?

In this case series, there are statistically significant female patients, and it is known that there is a large gender difference in smoking rates in Japan. The gender difference may have been a confounding factor.