Reviewer's report

Title: Secondary amenorrhea in patient with spinocerebellar degeneration treated with thyrotropin-releasing hormone (TRH): a case report and in vitro analysis

Version: 2 Date: 1 September 2011

Reviewer: Hiroshi Tamura

Which of the following best describes what type of case report this is?: Unreported or unusual side effects or adverse interactions involving medications

Has the case been reported coherently?: Yes

Is the case report authentic?: Yes

Is the case report ethical?: Yes

Is there any missing information that you think must be added before publication?: Yes

Is this case worth reporting?: Yes

Is the case report persuasive?: Yes

Does the case report have explanatory value?: Yes

Does the case report have diagnostic value?: Yes

Will the case report make a difference to clinical practice?: Yes

Is the anonymity of the patient protected?: Yes

Comments to authors:

To Authors

This report is interesting and important to spread the information about the side effect of TRH. But some queries have been arisen.

What is the PRL assay system? How did the authors diagnose this patients as having normal prolactinemia and latent hyperprolactinemia?

By radioimmunoassay (RIA), patients were diagnosed having hyperprolactinemia whose serum PRL was > 15ng/ml. When serum PRL was increased > 70ng/ml at 15 or 30 min. after provocation with TRH, patient was diagnosed having latent...
hyperprolactinemia by RIA.

It becomes the diagnosis of hyperprolactinemia with > 30 ng/ml (normal range: 0–30ng/ml, approximately) by recent PRL assay systems. However, there is no criteria for the diagnosis of latent hyperprolactinemia by recent PRL assay systems. I presume that 142.7ng/ml is not so high (same as 70ng/ml by RIA).

Since the effect of TRH to increase serum PRL is temporary, TRH-T injection once or twice a month was no problem. Daily oral administration of Taltirelin hydrate may be a cause of continuous hyperprolactinemia and developed secondary amenorrhea. When the patient saw the authors, she already stopped to have Taltirelin hydrate. So, hormone levels were normal (no hyperprolactinemia).

The conclusion is that we must be careful of the side effects of hyperprolactinemia and amenorrhea when patients are taking Taltirelin hydrate.

It seems quite difficult to demonstrate this by in vitro experiment.

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