

PEER-REVIEW REPORT

Name of journal: *World Journal of Clinical Cases*

Manuscript NO: 74049

Title: Thyrotoxicosis after a massive levothyroxine ingestion: A case report

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05906528

Position: Peer Reviewer

Academic degree: MD

Professional title: Assistant Professor, Staff Physician

Reviewer's Country/Territory: United States

Author's Country/Territory: China

Manuscript submission date: 2021-12-30

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-12-30 16:16

Reviewer performed review: 2022-01-01 23:56

Review time: 2 Days and 7 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous

statements

Conflicts-of-Interest: [] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The case report is interesting and adds to the limited literature available on management of thyrotoxicosis after ingestion of excessive amounts of levothyroxine in adult patients. The authors have done a good job in explaining the management of this patient. They have also done a great job in delineating the alternative methods to manage this scenario. The authors have explained how the symptoms of thyrotoxicosis can be delayed and may manifest about 3 days after overdose of levothyroxine due to its delayed onset of action, however, could it be possible that patient was manifesting symptoms of benzodiazepine withdrawal since the levothyroxine overdose occurred concomitantly with overdose of clonazepam and zolpidem. Was benzodiazepine withdrawal managed adequately in this patient ? How was that managed ? Also, authors used interesting phrase of 'mental stimulation' that possibly led to the overdose. This phrase sounds primitive and non-clinical. Can it be replaced/clarified? Do the authors mean stress/worsening depression? Was psychiatry service consulted/involved in this patient's management in the light of history of depression and the near-fatal overdose? Adding a few sentences clarifying these few points will help in making the case report complete.

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Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 03803717

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: Japan

Author's Country/Territory: China

Manuscript submission date: 2021-12-30

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-01-04 08:55

Reviewer performed review: 2022-01-10 10:01

Review time: 6 Days and 1 Hour

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
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Peer-reviewer	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous

statements

Conflicts-of-Interest: [] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

I'm glad to review this manuscript titled "Thyrotoxicosis after a massive levothyroxine ingestion: A case report". In this case report, authors described young woman with depression overdose levothyroxine. She developed thyrotoxicosis 15 hour after an overdose, then thyroid storm occurred 3 days after ingestion. It is valuable that the authors carefully summarize her symptoms and course, and case in adults are rare. Discussion part is well written. Although this report is clinically informative, more detailed laboratory and image findings of etiology and pathology is needed. In particular, it is necessary to clarify the presence or absence of complications of other thyroid diseases, including Graves' disease, which is considered to be the most common cause of thyroid storms. This manuscript is currently insufficient for publication in World Journal of Clinical Cases. Before the considering acceptance, there are some major criticisms which should be addressed. Major comments 1, As mentioned in general comment, authors need to clarify the presence or absence of complications of other thyroid diseases, including Graves' disease, which is considered to be the most common cause of thyroid storms. How about an ultrasound findings? Please describe TSH receptor antibody, especially TSH receptor stimulating antibody. Please clarify whether the thyroid storm was caused by levothyroxine alone or with other thyroid complications. Major comments 2, As authors know, thyroid storms are triggered by some stimulus factor. Did this patient have any stress, including infections? Major comments 3, Why authors treated tachycardia by propranolol, beta 1 non-selective blocker. Major comments 4, The authors should describe in more detail why she was diagnosed with hypothyroidism. And how about thyroid function test when she was diagnosed with depression? Minor comments 1, Author need to describe the dose of

levothyroxine in abstract. Minor comments 2, At physical examination, authors need to describe heart rate was regular or not.