Reviewer's report

Title: Metoprolol-induced visual hallucinations: a case series

Version: 2 Date: 1 November 2011

Reviewer: Louise Pilote

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

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

Comments to authors:

General comments:
This is a very interesting case series of suspected metoprolol induced visual hallucinations. It is pertinent to report series such as this one because of the esoteric nature of the side effect and the frequency of use of the drug in question. While the improvement of symptoms with discontinuation of metoprolol certainly points to it being the likeliest cause, I feel that the descriptions of the cases do not thoroughly explain the investigations, if any, which were done to rule out other etiologies of visual hallucinations (metabolic causes, neurodegenerative conditions). If metoprolol indeed is the cause, it has to be considered a diagnosis of exclusion and this was not evident in the case summaries.

Revisions necessary for publication:
A more detailed description of pertinent aspects of the history, physical examination and laboratory/imaging assessment of the patients is necessary in order to ensure that all other organic diagnoses are entertained and ruled out.

Some aspects of the suspected metoprolol induced hallucinations differ from those previously reported, such as the long delay between initial prescription of metoprolol and the adverse effect in question. There was no effort to explain why this occurred. Moreover, each of the cases presented with nocturnal hallucinations. Is there a hypothesis as to why they only occurred at night?

Has the case been reported coherently?
Yes, though more detail pertaining to the case history would be beneficial as would hypotheses as to why the adverse event took so long to appear and why there was a particular time of day in which the adverse event occurred.
Is there any missing information that you think must be added before publication?
-------------------------------------------------
- Yes

More detail in the case presentations to rule out other organic causes of hallucinations. The author should offer hypotheses as to why it took so long to develop the adverse event and why the adverse event was solely nocturnal.

Is this case worth reporting?
-----------------------------
- Yes x
- No

Given the popularity of metoprolol and the fact that alternatives exists, highlighting a rare yet reversible adverse affect of the medication is worthwhile.

Is the case report persuasive?
----------------------------
- Yes x
- No

As a frequent prescriber of metoprolol, I'd be interested in learning about such an adverse effect.

Does the case report have explanatory value?
--------------------------------------------
- Yes
- No x

The author does not attempt to explain the lag time between starting the medication and the onset of symptoms. Moreover, the author does not attempt to explain why the symptoms are nocturnal.

Does the case report have diagnostic value?
-------------------------------------------
- Yes
- No x

Will the case report make a difference to clinical practice?
----------------------------------------------------------
- Yes x
- No
If physicians are aware of this side effect, they are more likely to question patients. If patients respond affirmatively, there are alternative medications to replace metoprolol if needed.

Is the anonymity of the patient protected?
- Yes [ ]
- No [x]

**Quality of written English:** Acceptable

**Declaration of competing interests:**
I declare that I have no competing interests