Reviewer’s report

Title: Lacrimal drainage system stenosis associated with Trastuzumab emtansine (Kadcyla®, T-DM1) administration: a case report

Version: 0 Date: 29 May 2019

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

RELEVANCE - Does this case report make a contribution to medical knowledge, have educational value, or highlight the need for a change in clinical practice or diagnostic/prognostic approaches?

Yes, this report contributes to medical knowledge

CASE DESCRIPTION - Are the details of the case sufficiently well described to understand the patient's symptoms and course of treatment?

Yes, the description of the case is sufficient

DIAGNOSIS/INTERPRETATION - Based on the facts presented, are the diagnosis, interpretation, and course of treatment medically sound?

No, based on information contained in the report, the authors' interpretation of this case is unsound

DISCUSSION OF THE CASE - Does the discussion appropriately analyse the importance of the findings and their relevance to future understanding of disease processes, diagnosis or treatment? Has an adequate literature review pertinent to the case been included?

No - there are major issues
OVERALL MANUSCRIPT POTENTIAL - Could an appropriately REVISED version of this work represent a technically sound contribution?

Maybe - with major revisions

PEER REVIEWER COMMENTS:

GENERAL COMMENTS: Authors report a case of nasolacrimal duct obstruction following use of Trastuzumab emtansine in a young lady with metastatic breast cancer. This association may be purely coincidental or there may be a cause-effect relationship. Please see my detailed comments below to improve the quality of the manuscript.

REQUESTED REVISIONS:

My specific comments

Abstract: Requires English grammar editing. For example "She previously underwent mastectomy and "was" treated with multiple anti-cancer regimens". The word "was" should be inserted. There are several such grammatical mistakes.

Case report: Why is there discrepancy between the level of blockade as noted on diagnostic syringing and dacryocystography?

The onset of nasolacrimal symptoms within two months of starting T-DM1 therapy is indicative of a cause and effect relationship. However, there is nothing else to relate the two events which could be completely coincidental. The authors' hypothesis that HER2 expression in the nasolacrimal epithelial cells is speculative and not conclusive.

Why did the treating physician start topical steroids when there was documented nasolacrimal duct stenosis on the DCG? What is the postulated mechanism of reversal of the blockage with use of topical steroids? Did authors perform the DCG again after reversal of symptoms to see if the blockage had resolved?

There are many unanswered questions in this manuscript. Unless authors are able to provide sufficiently scientific answers to these queries, the occurrence of the NLDO in a young lady on T-DM1 may be considered coincidental.

Points in favour of drug induced blockage are: Time lines as mentioned above i.e. within a few days of starting of the inciting drug, and bilateral simultaneous symptoms. These should be discussed in the discussion. Also, authors should definitely acknowledge that this association may be coincidental and that further reports are required to corroborate these findings.
ADDITIONAL REQUESTS/SUGGESTIONS:

As above

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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Please complete a declaration of competing interests, considering the following questions:

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