Reviewer's report

Title: Multidisciplinary Management of a Large Pheochromocytoma Presenting With Cardiogenic Shock: a Case Report

Version: 0 Date: 16 Aug 2019

Reviewer: C. Bergamini

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TITLE OF THE ARTICLE:


SUMMARY OF THE CONTENT

The authors report the case of a "catastrophic" presentation of a pheochromocytoma in a 38-year-old woman. In fact, the patient initially presents with a cardiogenic shock that was dealt with the typical resuscitation maneuvers. After having achieved a good stabilization of the hemodynamic parameters, she underwent a deep and adequate diagnostic process which allowed to find a large adrenal mass of the left side that was eventually identified as a big pheochromocytoma and surgically removed with an open intervention of left nephro-adrenalectomy. The patient was then led to healing of the primary tumor and was disease-free for two years until now. Unfortunately, however, vertebral metastases have been present. In fact it was a malignant tumor form, as confirmed by the definitive histological examination of the surgical specimen.

COMMENT AND REQUESTS

The article is very well written and describes a very appropriate clinical approach to this rare and difficult case. It shows a profound awareness in the authors' management of adrenal pheochromocytoma. In fact, they aimed to involve many clinical specialists in the decision-making process, such as cardiologists, anesthesiologists, urologists, etc., according to the best clinical practices through a multidisciplinary approach.

The case report is original and very effectively emphasizes the need to consider also this rare and potentially dangerous endocrine tumor among the possible etiologies of a sudden onset hemodynamic instability, especially in an otherwise healthy patient.

I also agree with their surgical planning, both for the immediate open approach, for kidney removal, and for peri-operatively admission to ICU, due to the possible blood pressure disorders.
The following are my only minor criticisms and questions to be addressed:

1. Since DOPA-PET is not pathognomonic only for pheo metastases, why did they not decide to perform a vertebral biopsy? Did they consider the possible hypertension crisis as an absolute contraindication of this diagnostic maneuver, even after the removal of the primary tumor? It seems to me they should have gone deeper in such an evaluation.

2. Did they perform a post-operative metanephrine and a nor-metanephrine urine analysis to establish the intensity of the endocrine activity of vertebral metastases? Indeed, we know that the metastases of a pheo often show a different and bizarre pattern of hormonal secretion.

3. If the metastatic nature of the vertebral disease was confirmed, don't they think it would deserve more effort, perhaps even surgery, for its treatment, considering also the young age of the patient?

4. Can you report the precise follow-up protocol you apply for this metastatic pheo case? Due to the extreme rarity of this event, it would be very interesting for the readers to know it.

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