

Comment On: Peripartum Cardiomyopathy Treatment with Dopamine Agonist and Subsequent Pregnancy with a Satisfactory Outcome

Comentários sobre Tratamento da miocardiopatia periparto com agonista dopaminérgico e subsequente gestação com resultado satisfatório

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Medeiros e Melo et al report a case of a patient with pre-eclampsia and peripartum cardiomyopathy (PPCM) successfully treated with the dopamine receptor D2 agonist cabergoline.¹ Treatment with the dopamine receptor agonist bromocriptine is currently being evaluated in a multicenter clinical trial² (NCT00998556) that is based on the concept of dopamine agonists inhibiting the enzymatic generation of prolactin-fragments (etiologically linked to PPCM) by substrate depletion, that is, the inhibition of pituitary prolactin secretion. These prolactin-fragments are termed vaso-inhibins, and represent a family of hormones with effects on the angiogenesis-mediated growth of reproductive and non-reproductive organs, and in the pathogenesis of a variety of diseases, such as pre-eclampsia, PPCM, and diabetic retinopathy.³⁻⁷ In PPCM, vaso-inhibins cause heart failure by impairing coronary microvascular growth and function.³

While the report by Medeiros e Melo et al is consistent with the above-mentioned concept, it lacks important information for claiming a similar mechanism. The authors refer to vaso-inhibins as “products of prolactin degradation”, thereby contradicting their role as key pathological mediators. Furthermore, the work does not contain any information on the serum levels of prolactin nor of vaso-inhibins. While vaso-inhibin serum levels are difficult to evaluate due to the lack of a quantitative vaso-inhibin-assay, prolactin

levels should have been measured throughout the course of the treatment. It is puzzling that starting the treatment with cabergoline on the 39th day post-abdominal delivery was effective, since, in the absence of lactation, prolactin levels return to the non-pregnant level within the first few weeks. Did the authors check for prolactinoma evidence? Additionally, monitoring of cardiac markers as natriuretic peptides and troponin serum levels would be of interest. In view of the scarce data about prolactin serum levels before, during, and after PPCM with or without dopamine receptor agonists, we recommend strict monitoring of prolactin serum levels throughout the course of the disease.

References

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