Use of Prolactin Inhibition in the Treatment of Peripartum Cardiomyopathy

O uso de inibidores de prolactina no tratamento de cardiomiopatia periparto

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I certainly agree with Dr. Melo and colleagues that newer treatments are necessary for the therapy of peripartum cardiomyopathy (PPCM); and particularly in those areas of the world with higher mortality and morbidity rates.[1]

My hope is to encourage Dr. Melo and colleagues, or others, to carry out a carefully controlled study of either cabergoline or bromocriptine in a large group of subjects with PPCM receiving evidence-based standard heart failure treatment alone compared with another group receiving that treatment plus the prolactin-inhibition. This kind of carefully controlled study, in which participants are randomly assigned to different groups, is still waiting to happen.

In the study by Haghikia et al[2], referenced by Dr. Melo and colleagues, the authors indicated that they found no statistically significant recovery outcome difference in the 64 subjects receiving bromocriptine compared with the 32 who did not. In addition, they reported that the group with whom the bromocriptine treatment proved the least effective had been the group with very low left ventricular ejection fraction (LVEF) at diagnosis (LVEF < 0.25). Those are precisely the subjects who need help the most.

In the study by Sliwa et al[3], referenced by Dr. Melo and colleagues, the group with higher mortality rate (4 out of 10), that did not receive bromocriptine, was composed of older women who were diagnosed later postpartum. The inequality of population at baseline is suggested by a statistically significant difference in the time of diagnosis. Only 1/10 women in the non-bromocriptine group was identified earlier postpartum (8 days or less), while in the group who received bromocriptine that number was higher (6/10) ($p = 0.015$, by my calculations). The only death in the bromocriptine-treated group had less severe systolic dysfunction at diagnosis than the patients who survived. This fact raises the question of whether an adverse effect of the medication could have contributed in any way to her death.

Dr. Melo and colleagues reference a study by me and colleagues when mentioning a higher mortality rate due to PPCM in Haiti. In fact, our studies in Haiti document a decrease in the mortality rates from over 50% to the reported 15.3% at the end of a 5-year observation period.[4] Those findings are for subjects who received available standard, evidence-based therapy for heart failure.

I have also had the privilege to serve as co-director of the Investigations of Pregnancy Associated Cardiomyopathy (IPAC) studies in North America, led by Dr. Dennis M. McNamara, MD, University of Pittsburgh Medical Center. Our 2015 report[5] of 100 subjects with PPCM showed recovery rates of 72% at 12 months postpartum; and a mortality rate of 4%. Only 1 of the 100 subjects received prolactin inhibition treatment, the remainder received standard, evidence-based heart failure therapy. The recovery rates in the IPAC group were very comparable to those reported by Haghikia et al[2] for subjects receiving bromocriptine treatment in addition to standard heart failure treatment. Adverse events in the IPAC group occurred almost exclusively in those with diagnostic LVEF under 0.30, showing clearly the importance of early diagnosis for better preserved heart function.

An additional point that I would like to stress is that the use of prolactin inhibition therapy may lead to loss of breast milk, which can be catastrophic for a newborn, particularly in conditions of poverty where alternative nutrition may be neither affordable nor available.[6] However, I am certain that in their excellent studies, Dr. Melo and colleagues will address this issue.

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