

## Virtual PPCM Chat

**Hello Dr.Fett, how long have you been in internal medicine and studying Peripartum Cardiomyopathy?**

I am an Internist (American Board Internal Medicine, Certified) and a Public Health Physician with Master's degree in Public Health from University of MN, where I went to medical school and served as a Resident in Internal Medicine. I was introduced to PPCM in Haiti in 1984, when I became Medical Director of the Albert Schweitzer Hospital. While still serving Indian Health Service with the United States Public Health Service, I urged research into PPCM; but no one initiated that. When I retired from USPHS/IHS in 1996, I asked if I could do the research at Schweitzer Hospital in Haiti, and was granted that privilege. Over the next 5 years, I traveled to Haiti for 2 to 3 week visits every 3 or 4 months, I call those visits "my sweet 16." We identified and tracked a very large number of PPCM moms with detailed research and reported those results in numerous medical journals. I went to multiple national and international clinical meetings to talk about our findings. In the process, Dr. Dennis McNamara, Cardiologist, University Pittsburgh Medical Center, asked me to become "Co-Director" of their North American Investigations of Pregnancy-Associated Cardiomyopathy (IPAC), involving 30 medical centers, now expanded to 40 centers. IPAC has many reports in medical journals, and we continue to do research on PPCM, with focus on specific treatments and outcomes of subsequent pregnancies in PPCM moms.

**What is PPCM and the cause of the pregnancy induced condition?**

Please see our reports in the medical literature, search Entrez PubMed (National Library of medicine, search "IPAC PPCM fett jd".

The exact cause is not yet identified, but multiple factors enter in, including genetic susceptibility, hormones and "angiogenic factors" that are chemicals coming from the placenta. These factors must be in balance, but when out of balance, there is too much cardio-toxic impact and too little cardio-protective influence. Among these products is soluble FLT-1 (sFLT1) and Placental Growth Factor (PIGF)

**When can PPCM actually be detected in a pregnant woman and why may it**

Classic definition of PPCM lists it as "post-partum" but we are identifying it much earlier, often with starting process in the

first and second trimesters of pregnancy. This is an exciting development because when PPCM can be identified earlier, even before delivery, it is possible to start an effective treatment that prevents further deterioration, starts the healing process, and results in safe delivery of baby, survival of mother, and full recovery from heart failure.

**After diagnosis, some women are required to stop breastfeeding. Is this necessary for recovery in Peripartum Cardiomyopathy?**

This is an area we continue to investigate. To know THE ANSWER, it is necessary to further explore the impact of the breastfeeding hormone, prolactin. One theory says that prolactin can be broken down into a cardio-toxic metabolite; and that theory has led to the proposal of using bromocriptine to stop the flow of breast milk. These studies come mostly from South Africa and limited groups in Europe. Our IPAC studies thus far have not seen any outcome differences when breastfeeding continues so long as the "evidence-based" heart failure treatment is used. As mentioned earlier, our research continues in this area, and before too long, we should have definite answers. Please keep an open outlook with respect to breastfeeding, and we will find the answer.

**What are the major concerns and long term effects a PPCM patient may have?**

From my perspective these are the major concerns from PPCM moms:

- 1) Will my baby be OK?
- 2) Will I survive?
- 3) Will I completely recover?
- 4) Is it OK to breastfeed?
- 5) Is it safe to have another pregnancy?
- 6) Will my daughter be at risk to develop PPCM?

**What steps can an obstetrician take to check if their pregnant patient has developed PPCM?**

What I would wish the most is that every subject in pregnancy would be informed about the potential for PPCM to develop. To know about it is to be able to detect it. After all, it is still among the "top 10" reasons for maternal mortality. For this reason, I developed a fairly simple screening test that can be done any time during pregnancy. It doesn't cost anything. This is the "Self-Test" for heart failure developing during or immediately after pregnancy: Self-test for recognition of heart failure during or just after pregnancy:\*

1. Orthopnea (difficulty breathing when lying flat): (a) None 0 points; (b) Need to elevate head 1 point; (c) Need to elevate 45 degrees or more 2 points.
2. Dyspnea (shortness of breath on exertion): (a) None 0 points; (b) Climbing 8 or more steps 1 point; (c) Walking on level 2 points.
3. Unexplained cough: (a) None 0 points; (b) At night 1 point; (c) Day and night 2 points.
4. Swelling (pitting edema) lower extremities: (a) None 0 points; (b) Below knee 1 point; (c) Above and below knee 2 points.
5. Excessive weight gain during last month of pregnancy: (a) Under 2 pounds per week 0 points; (b) 2 to 4 pounds per

week 1 point; (c) Over 4 pounds per week 2 points.  
6. Palpitations (sensation of irregular heart beats): (a) None 0 points; (b) When lying down at night 1 point; (c) Day and night, any position 2 points.

ACTION: 5 or more points = see cardiologist re: plasma BNP and echocardiogram.

\*Fett JD. Validation of a self-test for early diagnosis of heart failure in peripartum cardiomyopathy. Crit Pathw Cardiol 2014;13(4):14-15

**What medications has been found to help increase a PPCM patients heart function?**

Simply put, these are the most important groups of medications that compose the "evidence-based" effectiveness of treatment:

- 1)Beta blockers, such as metoprolol, bisoprolol, carvedilol.
- 2)ACE-Inhibitors, such as lisinopril and enalapril.
- 3)ARBs (angiotensin releasing hormone blockers), such as valsartan and losartan.
- 4)NI (Nepriylisin Inhibitor), sacubitril, one of the components of ENTRESTO, the other component being valsartan.

It is important to use a combination of medications, having a synergistic impact advantage over any of these medicines used alone.

**What information would be helpful to a newly diagnosed PPCM patient?**

Everything above.

**There is still lack of information and knowledge about PPCM in the medical field. Can you explain the reason for this?**

As with any unsolved medical mystery, it takes time and focus to find answers. But we are close to solving this puzzle. Stay tuned! The answers are coming!

**What scientific research organization are you affiliated with and how can this make a great change for PPCM?**

Already addressed this. See previous, but most importantly are:

- 1)Hospital Albert Schweitzer, Deschepelles, Haiti
- 2)University Pittsburgh Medical Center
- 3)IPAC, founded by 2) and Dr. Dennis McNamara

**Thank you for your time. Is there anything else we should know that we haven't covered on this discussion? (About you, or research)**

Yes, sometimes the genetic predisposition in a PPCM mother comes from her father's genes. So the father's genetic material also can contribute. Also, the baby may carry predisposing genes that have been contributing to that genetic makeup of the unborn child. Sometimes, that can result in sensitized cells crossing over into the maternal circulation, leading to the development or worsening of a cardiomyopathy. So let us not forget that the father can contribute some of those PPCM predisposing genes.