

Short Communication

Can Cocoa Butter Cause Heart Defects? A Brief Review of the Literature

Greg J. Marchand*

Marchand Institute for Minimally Invasive Surgery, USA

*Corresponding author

Greg J. Marchand, Marchand Institute for Minimally Invasive Surgery, 10238 E. Hampton, Ste 212, Mesa, AZ USA 85209, USA, Tel: 001-480-999-0905; F: 001-480-999-0801; Email: gm@marchandinstitute.org

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Abstract

The unproven link between Cocoa Butter and fetal heart defects remains an often discussed topic, causing concern among pregnant women. This brief review tracks down the origins of this myth and the limited data available on the topic.

Keywords

• Birth defects; Cocoa butter; Stretch marks; Teratogen; Cocoa

INTRODUCTION

As an OBGYN, one of the most common office questions is the infamous “Is this safe in pregnancy?” From hair dye to caffeine, cold cuts to vaping, Obstetricians in the US must constantly be ready to give our opinions on food, medication, hygiene and beauty products for our pregnant patients. While I am usually ready to provide my instant canned responses to almost any question, I was intrigued earlier this year when a new question entered the mix that even I had not heard before.

Three times so far this year, patients have asked me if Cocoa Butter was safe to apply during their pregnancy. I was very accustomed to the question “Will Cocoa Butter prevent stretch marks?” (Which it won’t, by the way,) but up until this year I had never heard anyone even suggesting that the most common skin cream used in pregnancy could be harmful. As a result, I hit the books and sought out to be sure I had the best answer for my patients.

Like any good urban legend, I quickly found there actually was a tiny bit of evidence to at least spark the idea that this statement could be true. That smidgen of evidence comes in the form of a study published in 2006 by a small team of researchers from the Albert Einstein Medical Center in Philadelphia, PA. This team submitted a research paper to the Annual Meeting of the Society of Maternal Fetal Medicine in Miami, Florida. The title of this paper was “An association between fetal arrhythmias and maternal use of cocoa butter.” It was accepted and presented at the meeting. Like all studies at that meeting, it was also later published in a special edition of the American Journal of Obstetrics and Gynecology, which most physicians in this field simply refer to as “the gray journal.”

The purpose of this discussion is not to discredit the study itself, but rather to point out that the study in no way ever proposed that Cocoa Butter could cause fetal heart birth defects

[1]. The study, which was a retrospective unblinded analysis of 255 patients, only included the rare patient that had both an RSP (Redundant Septum Primum,) and suffered from PACS’s (Premature Atrial Contractions). For this rare and unusual patient set, the study basically went on to say that the PAC’s (the arrhythmia portion) may be caused by exposure to Cocoa Butter, or other caffeinated foods. They stated this was only applicable in patients who already had an RSP. The study also defined what an RSP was, calling it any septum primum that could reach at least half the way to the far wall of the left atrium. Prior to this study no one had specifically defined what exactly an RSP was, or it’s involvement in PACS. The study never actually theorized, or was even set up to tell if the two identified variables, Cocoa Butter Lotion and Caffeinated Food Products actually caused the defect described as Redundant Septum Primum, or any other birth defect.

The study actually was developed to measure whether discontinuing usage of these two substances would decrease the incidence of PAC’s in mothers who were already suffering from both of these conditions simultaneously, and ultimately claimed to show that stopping these agents did indeed have that effect. The obvious flaw here is that there is no evidence of causality to begin with, meaning we don’t really know if agents are the cause of the PAC’s to begin with.

From a scientific perspective, the study was flawed in numerous ways. First, there was no control group at all. Every patient included in the study already had both a RSP and PAC’s. There was no quantification of what percentage of PAC’s would resolve without any intervention, only the observation that ceasing usage of the substances fixed the problem in most of the experimental group. Without a control group there was no way to know if these PAC’s were all just destined to resolve spontaneously anyway, and that the Cocoa Butter was snatched unnecessarily. There was also no attempt to find any connection

between the formation of the RSP and use of the substances, and no attempt to find the overall incidence of RSP, something that has not been studied since.

In conclusion, even if this study was correct in all its assertions, (that caffeine causes PAC's in the rare patient that has an RSP,) it most certainly does not blame caffeine or Cocoa Butter for causing the RSP, or any other birth defect.

As a result I feel completely justified in telling my patients that Cocoa Butter has most certainly never been shown to be

associated with any birth defects, and you should be too! Also, if you were wondering, Cocoa Butter is not going to be particularly useful against stretch marks unless you combine its usage with the type of "slow and steady" weight gain Obstetricians recommend in pregnancy.

REFERENCES

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