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Bio 127 Physiology

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**Pitocin and Postpartum Depression**

When my husband and I found out I was pregnant with our first child, we were beyond ecstatic. After what felt like was going to be a lifetime of trying to conceive, we were actually expecting and in what seemed like the fastest 9, more like 10, months of my life, our son was here! Having an OB that was so easy going, smart, and trustworthy, I didn’t know how much went into preparing for labor and the birth of our son. I’ve been an EMT since 2015 and I felt so unprepared for this life event. I started asking so many questions to my OB about pregnancy, birth, parenthood, and everything in between. I asked my mom about her birth experiences with my two sisters and myself. I had heard of post-partum depression (PPD) but didn’t know if it ran in my family. A family friend was a doula and helped me write my “birth plan”, more of a guideline of what you would like when you’re in labor and any specific wishes. Anything and everything from the lights off in your hospital room to who you want there to even if you were going to save your placenta and have your doula turn it into pills that you can take postpartum. I started reading about medications if I were to be induced and heard of Pitocin.

Pitocin is a synthetic form of oxytocin that helps with contractions and can help speed up the labor process. Pitocin is classified as a uterotonic agent that means it increased uterine tone and contractions. They make contractions stronger. It does have several side effects and should only be administered under close medical supervision. My mom had Pitocin during her labor with me and she actually was diagnosed with PPD after I was born. She was prescribed medications to help and was shortly taken off them when I was 13 months old. During this class, we were assigned this project and I wanted to write a paper asking this question, does receiving Pitocin during labor increase the likelihood of being diagnosed with PPD or anxiety?

I started doing research of my own about Pitocin and even though it does help the labor process, I did find in an article that most women, women with a history of depression and/or anxiety were more likely to get PPD after receiving Pitocin by 36% who didn’t receive it. Women who had no history of depression and/or anxiety who received Pitocin increased the risk by 32%. Those numbers shook me down to my bones. Here I am supposed to be enjoying all of these kicks and movements my baby was making but I was more focused on the part where if I did receive this medication, I could be 32% likely to have PPD and/or anxiety. Pitocin is used under close medical supervision and has many side affects including but limited to excessive bleeding, headache, confusion, and tinnitus, ringing in the ears. It can also affect the baby by slowing their heart rate (bradycardia) or having an abnormal heart rate, seizure, jaundice, and problems with muscle tone and/or breathing. There are several factors on what side effects Pitocin can have on a woman. It can also help during an incomplete or threatened abortion or miscarriage that the body can’t clear itself.

During all of this reading, the time had come for me to bring this baby boy into the world. After an unsuccessful induction with cervical ripening agents, I was placed on Pitocin, the one medication I had typed in big bold lettering on my birth plan that I didn’t want. My son, Hunter, was too cozy inside and my body was fighting to keep him in. For the health of the baby, and myself my doctor started Pitocin to hopefully put my labor into overdrive. After an unsuccessful and very long 48 hours of labor, I ended being taken off of Pitocin due to his heart rate dropping significantly and elected to have a cesarean. Hunter was earth side and healthy. As for me, I had some “baby blues”, a term used for a short bout of mood swings and sadness but never formally diagnosed with PPD.

A study I found on pubmed.com made headlines when 7 doctors published an article titled, “Association of peripartum synthetic oxytocin administration and depressive and anxiety disorders within the first postpartum year”. The hypothesis presented was that women who were exposed, or given, synthetic oxytocin would have a lesser risk of PPD and anxiety disorders compared to women who weren’t exposed. They selected a population of women from the years 2005-2014 and found 9,684 were exposed to synthetic oxytocin to the 37,048 women who weren’t given Pitocin. Their results were surprising. Women who had pre pregnancy depression or anxiety that were given synthetic oxytocin were 36% more likely to have PPD or anxiety. Women who didn’t have any pre pregnancy diagnoses of depression or anxiety were 32% more likely to develop these disorders. The percentages are almost identical.

In conclusion, the research found that administration of Pitocin had a higher risk of having a documented case or symptoms of PPD and/or anxiety than those women who were never given Pitocin. PPD can be very complicated and complex to understand and control. Some women health may be at risk even if they have several factors and social factor that are out of their control. Whether it is stress, low economic social status, not having a life partner and having to raise your new child, issues or difficulty breastfeeding, perceived stress, inflammation markers and “dysregulated” communication between the hypothalamus and pituitary axis as well as the innate immune response system. Even though there are studies that link Pitocin and PPD/anxiety, there are still a lot of unanswered questions for women out there who are just starting their motherhood journey, in the middle of their pregnancy, and/or in the thick of motherhood.

**Works Cited**

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