



## No.58 – Thrombocytopenia, Spinal Anesthesia, &

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Title: **Thrombocytopenia, Spinal Anesthesia, and Childbirth: Truly a Moving Target**

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As a hematologist that specializes in non-malignant hematology, I get the opportunity to meet and interact with many different physicians across many different specialties. The questions surrounding patients on an aspirin or with a decreased platelet count can become more complex in differing clinical contexts. One such example is the pregnant patient that is found to have a decreased platelet count, or has a prior diagnosis of ITP. In these cases the risk of bleeding both during the pregnancy, as well as at the time of delivery need to be considered when determining if treatment will be necessary for her low platelet count. Additionally, if the expectant mother with a low platelet count desires spinal anesthesia for her delivery, the risk of bleeding related to this can be specifically concerning.

In general, a platelet count of 50 or higher is adequate for most surgeries, with the exception of neurologic surgery, or open-heart surgery where a platelet count of over 100 may be desired. However, the answer to the question: “What is a safe platelet count for spinal anesthesia” is not an easy one to answer. The combination of the limited clinical research data in pregnant ITP patients, as well as the justified concerns for a bleeding complications that could lead to a devastating neurologic injury, can lead to widely differing answers to this question. While a “safe platelet” is desired this has to be weighed against the side effects of treatments that may be needed to achieve this. The best available research suggests that a platelet count of 80,000 or higher is safe for a mother to have spinal anesthesia, but there are also studies that have suggested that a platelet count as low as 50,000 may be equally safe. This uncertainty can lead to patients getting many different answers to the question of “what is a safe platelet count for spinal anesthesia”. I recently bumped into a colleague who happens to be both an expert high-risk obstetrician and an expert in obstetric-related hematologic issues. He proceeded to ask me about a case of a patient with ITP that was in the hospital with an impending delivery with a platelet count was 60,000. I asked him what the anesthesiologist on call today thought about the platelet count, and he said: “fortunately the 50 anesthesiologist in on today, and not the 80,000 one”. This highlights the variability in platelet count that is used by different physicians and that while 50,000 would be okay for one it might be too low for another.

So what is an expectant mother with a history of ITP to do in these situations? In general, if physicians are aware of a situation in advance, and have the opportunity to both evaluate the patient in advance, familiarize themselves with the diagnosis of ITP, they will be more at ease with the delivery. We will routinely have our patients meet with the anesthesiology group as an outpatient well in advance of her delivery for this reason. Communication in advance between the obstetrician, the hematologist, and anesthesiologist will usually make for a smoother delivery, and the ability of patients to receive spinal anesthesia if that is their preference. It also allows for the time to make plans for any treatment that might be required in advance of delivery to get the platelet count to a “safe” level so that spinal anesthesia is an option for the patient.

Ultimately each patient must be analyzed individually, weighing the risks and benefits of spinal anesthesia in the context of their platelet count and how easily it can be achieved. With advance planning the process should be a smooth one, allowing for a “comfortable delivery” for both mother and anesthesiologist.