Abstract # 168

Temporal Presentation of Gestational Thrombocytopenia – Routine Prenatal Screen at 28 Weeks Will Suffice

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Introduction: In an effort to reduce costs, aid in timely placement of labor epidurals, and improve maternal satisfaction without compromising maternal safety, our institution considered deferring platelet counts on all healthy parturients at the time of delivery prior to epidural placement provided they had a routine prenatal platelet screen at 28 weeks. Exceptions to this would be patients with pre-eclampsia, documented platelet or hematopoietic disorders, and patients on heparin therapy. Our main concern with this approach was the potential development of undetected Gestational Thrombocytopenia (GT) during the third trimester, increasing the risk for development of an epidural hematoma during labor epidural placement. GT can be found in approximately 7-8% of all parturients and accounts for more than 70% of cases of thrombocytopenia in pregnancy.(1) GT normally presents in the third trimester, however the temporal presentation during this period is unclear.

Methods: We reviewed the charts of all parturients at our institution that had routine platelet counts drawn at both 28 weeks and at term delivery between the period of January 1st, 2004 to December 31st, 2009 (n=2,512). Group I: Platelets > 150k at 28 weeks and > 150k at delivery (n=2,203); Group II: Platelets > 150k at 28 weeks and < 150k at delivery (n=192); Group III: Platelets < 150k at 28 weeks and > 150k at delivery (n=27); Group IV: Platelets < 150k at 28 weeks and < 150k at delivery (n=98).

Results: Our interest group was Group II and IV. In Group II,160 of the 192 patients were diagnosed with GT. With the exception of those patients diagnosed with pre-eclampsia (n=21), all others were found to have platelet counts greater than 100k except for 3 patients whose counts were >92k. Group IV had 16 patients with a diagnosis of GT.

Conclusion: Patients with platelet counts of < 150k (Group IV) at 28 weeks and patients with history of preeclampsia, documented platelet or hematopoietic disorders, and patients on heparin therapy should have a repeat platelet count prior to labor epidural placement.(2) Our study demonstrates that GT presents by 28 weeks gestation. If platelet counts are >150k at routine prenatal screen at 28 weeks, it is unlikely that GT would cause a further drop in platelet count to levels which are unsafe for epidural placement at delivery. It is not necessary to obtain a platelet count prior to placement of an epidural at the time of delivery in this group. This will allow for cost savings, aid in timely placement of an epidural, and increase the rate of maternal satisfaction.