Maternal and Fetal Outcomes Among Pregnant Women with Immune Thrombocytopenic Purpura

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OBJECTIVE: We aimed to report six pregnant women with immune thrombocytopenic purpura (ITP) followed and delivered at our clinic.

STUDY DESIGN: This retrospective study was concluded at Dicle University, School of Medicine, Department of Obstetrics and Gynecology, between January 2008 and December 2008. The cases with ITP were referred from the outside centers to our clinic.

RESULTS: The mean platelet count of the cases were 70.9 K/UL (18.1-107). The mean age of the cases were 29.4 (20-39), gravidy 3.6 (1-7), and parity 2.6 (0-6). The cases had ITP diagnose before pregnancy, 4 (66.6 %) of the cases had term pregnancy and spontaneous labor, 2 (33.4%) preeclampsia and preterm labor. We induced the labor of these two cases with preeclampsia and delivered vaginally. The other 3 cases had also delivered vaginally, but one of the cases had fetal distress during labor and had cesarean delivery. The babies were healthy, with mean birth weight of 2810 g (1900-3100), 1 minute Apgar score 5 (3-7) and 5 minute 6.6 (5-9). We had transfused 1 unite of trombocyst apheresis solution to one of the case. The cases discharged from the hospital without any complication and day 2-4 days (2.8 days).

CONCLUSION: ITP in pregnancy can be a complex and a challenging disease. Mothers with ITP require monitoring during pregnancy and may require intervention with agents to raise the platelet count. With a multidisciplinary approach including obstetrician, hematologist and pediatrician good outcomes can be taken for mother and fetus.

Key Words: Immune, Thrombocytopenic, Purpura, Pregnancy

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Introduction

Immune thrombocytopenic purpura (ITP) is a autoimmune disorder characterized by splenic sequestration and destruction of platelets, which is clinically manifested as mucocutaneous bleeding tendencies. ITP occurs in young women at an estimated frequency of 1 to 2 of every 1000 pregnancies.[1] Thrombocytopenia affects 6-10% of all pregnancies, and affects in pregnant women may often be associated with other abnormalities, such as hypertension, microangiopathic hemolytic anemia and elevated hepatic enzymes, but may also occur in isolation.The incidence of ITP does not increase during pregnancy and affect its course, and most pregnancies in women with ITP show no increased mortality or morbidity.[2]

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We aimed to report 5 pregnant women with ITP; followed and delivered in our clinic.

Material and Method

This retrospective study was concluded at Dicle University, School of Medicine, Department of Obstetrics and Gynecology, between January 2008 and December 2008. The cases with ITP were referred from the outside centers to our clinic. The cases had ITP diagnose before pregnancy and taking no therapy for ITP. The mean gestational weeks of the cases were 29.4 (20-39) weeks and diagnosed on ultrasound examination (Voluson PRO 730 4D ultrasound device).

Results

The mean platelet count of the cases were 70, 9 K/UL (18.1-107). The mean age of the cases were 29.4 (20-39), gravidy 3.6 (1-7) and parity 2.6 (0-6). Four (66.6 %) of the cases had term pregnancy, three (33.4 %) preeclampsia and preterm labor. The symptoms of haemostatic impairment were not noted in the cases and any of them had therapy for ITP. The cases were consultated with hematology department and peripheral smear were made. One case needed platelet trans-

fusion to raise platelet counts. We induced the labor of these two cases with preeclampsia and delivered vaginally. The other 3 cases had also delivered vaginally, but one of the cases had fetal distress during labor and had cesarean delivery. The babies were healthy, with mean birth weight of 2810 g (1900-3100), 1 minute Apgar score 5 (3-7) and 5 minute 6,6 (5-9).The cases were discharged from the hospital on day 2-5 by advice of hematology department.

Discussion

Thrombocytopenia can be a complex diagnose during pregnancy. Approximately, in 7-8% of the all pregnant women thrombocytopenia can be detected. The differential diagnosis of thrombocytopenia during pregnancy includes; gestational thrombocytopenia (GT), pregnancy-induced hypertension, hemolytic anemia, elevated liver enzymes and low platelets syndrome, disseminated intravascular coagulopathy, pseudo thrombocytopenia, systemic lupus erythematosus, thrombotic thrombocytopenic purpura/hemolytic uremic syndrome, human immunodeficiency virus infection, hematological malignancies, congenital thrombocytopenia, and drug-induced thrombocytopenia. The diagnosis of ITP is put when the other causes of thrombocytopenia ruled out.[3] All of our cases had ITP diagnose before pregnancy and followed up by hematology department.

Gill et al., reported that the newborns from the mothers with ITP had severe (4%) and moderate (9%) thrombocytopenia. They also reported that, the delivery type should be vaginal birth unless there is an obstetric indication (4). There was not thrombocytopenia in any of the fetuses and 4 (80%) of our cases delivered vaginally in our study.

Management of ITP includes follow up until the platelets fall below 20.000-30.000x109 liter or development of petechiae or bruishing. The first line therapy is corticosteroid application that is a safe therapy for both the fetus and the mother; however it has the risk of exacerbating maternal diabetes, hypertension, and osteopenia.[5] During the third trimester when the levels of platelets detected less than 10,000 x109 liters, IVIG is also used.[6] Intravenous anti-D (Rhogam®) has also been used in some pregnant for an immediate rise in platelets. In a study anti-D has been used in pregnant women with ITP with no fetal and maternal side effects.[7] We followed our cases spontaneously in our study.

Previous studies reported that cesarean delivery should be preferred to reduce the fetal intracranial hemorrhage risk. But, Cook et al reported this risk as 5% in spontaneous delivery and 4% in cesarean section.[8,9] Therefore the mode of delivery was reported to be determined by the general obstetrics indications. In our study we found similar findings.

In conclusion, according to our study characteristics of the pregnant women with ITP are similar to normal pregnant women. With a multidisciplinary approach including obstetrician, hematologist and pediatrician good outcomes can be taken for mother and fetus.

İmmün Trombositopenik Purpuralı Gebelerde Maternal ve Fetal Sonuçlar

AMAÇ: Bu çalışmada amacımız, kliniğimizde takip edilip doğumu yaptırılan altı immune trombositopenik purpuralı (ITP) gebe kadının sunulmasıdır.

GEREÇ VE YÖNTEM: Bu retrospektif çalışma Ocak 2008 ile Aralık 2008 yılları arasında Dicle Üniversitesi Kadın Hastalıkları ve Doğum Anabilim Dalında yapılmıştır. ITP'li olgular kliniğimize dış merkezlerden sevk edilmişlerdir.

BULGULAR: Olguların ortalama platelet sayıları 70,9 K/UL (18,1-107)' dur.Olguların ortalama yaşları 29,4 (20-39), gravide 3,6 (1-7), and pariteleri ise 2,6 (0-6)'dır. Olgular ITP tanısını gebeliklerinden once almışlardır, olguların 4'ü (% 66.6) miadında ve spontan yoldan doğum yapmış ve ikisi (%33.4) preeklampsi ve preterm eylem tanıları ile takipedilmiştir. Preeklampsili iki olguya doğum indüksiyonu uygulanmış ve bu olgular vaginal yoldan doğum yapmıştır. Diğer üç olgu vaginal doğum yapmışlar ve bir olguda da featl distress gelişmesi üzerine sezaryen ile doğurtulmuştur. Yenidoğanların tümü sağlıklıdır ve ortalama ağırlıkları 2810 g (1900-3100), 1. dakika Apgar score 5 (3-7) ve 5. dakika 6,6 (5-9)'dır. Bir olguya trombosit aferez solüsyonu transfüzyonu yapılmıştır. Olgular hastaneden 2-4. günlerde komplikasyonsuz olarak taburcu edilmiştir (2,8 gün).

SONUÇLAR: Gebelikte ITP kompleks ve zor olabilir. ITP li annelerin gebeliklerinde monitörizasyon gereklidir ve platelet sayılarını arttırıcı ajanların kullanımı gerekebilir. Obstetrisyen, hematology ve pediatristleri içeren multidisipliner yaklaşımla anne ve fetus için iyi sonuçlar elde edilebilir.

Anahtar Kelimeler: Immün, Trombositopenik, Purpura, Gebelik

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