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Successful Outcome of Pregnancy in a Diagnose Case of Autoimmune Hemolytic Anemia

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Abstract:

Autoimmune hemolytic anemia (AIHA) is a rare entity during pregnancy. The fetal risk is determined primarily by the ability of auto-antibodies to cross the placental barrier. Currently, the establishment of a standardized antenatal care in cases with AIHA remains as a pending issue.

The case report we described here a case of 20-week pregnant woman with history of three spontaneous abortion and one term IUD and diagnosed as a case of Autoimmune hemolytic anemia with history of Evan's syndrome and Idiopathic thrombocytopenic purpura . She was on regular monitoring with prednisolone therapy and showed good progress during antenatal period. Foetal parameters were also good .At 38 weeks pregnancy, a male baby was delivered by caesarian section due to PROM with BOH with PIH and there was no adverse effect during post natal period .

Conclusion: *Strong vigilance and monitoring during pregnancy ,childbirth puerperium is required to achieve good outcome on Autoimmune haemolytic anaemia .*

Key words: *Autoimmune haemolytic anaemia ,pregnancy antibody .*

Introduction :

Autoimmune hemolytic anemia (AIHA) is a rare entity during pregnancy. Anemia is a common pathology during pregnancy[1] and it holds a known association with an increased risk of low birth weight, small-for-gestational age babies, perinatal death and postpartum hemorrhage[2]. Although iron deficiency is the most frequent etiology, there are other causes of a more severe anemia[3].The autoimmune hemolytic anemia (AIHA) is characterized by the production of anti- red blood cell autologous antibodies, accelerating their destruction[4]. These antibodies are classified into warm, cold or mixed according to the optimum temperature at which the antibody reacts with the red blood cell membrane antigen[5]. During pregnancy, identification of the type of antibodies in AIHA is crucial to estimate the potential maternal and fetal risks and to establish the follow-up. The interaction of the complement cascade with the coagulation cascade could be an explanation for a perinatal adverse outcome despite the inability of the IgM to cross the placental barrier.

The incidence of AIHA in the general population is 1/ 100.000[6]. Nevertheless, its incidence in pregnancy is not clear due to the scarcity of published data. Currently, the establishment of a standardized antenatal care increase with AIHA remains as a pending issue.

Case report:

A 25 years old lady 5th gravida came at her 20th weeks of pregnancy on 2nd Sep 20. She was a diagnosed case of AIHA with PIH with bad obstetrical history .The patient had 3 spontanous abortion , 1 IUD (intra uterine death) delivered vaginally at 38 weeks on 2019) . She was receiving tab Ecosprin 75mg /day along with subcutaneous anticoagulant Enoxaparin 40 mg / day , anti-hypertensive Labetolol 200mg twice daily

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since 20wk pregnancy. She was also receiving Tab Prednisolone 7.5mg/day before her pregnancy and advised to continue upto delivery according to the attending haematologist.

She was on regular ante natal checkup, all time her BP was under control with medication. Her routine blood tests revealed as, Hb% -10gm/dl, normal ferritin level. She received 4 Units and 8 Units of whole blood on 2021 and 2019 respecttively when she was diagnosed as a case of severe anaemia . During ante-natal examination revealed, mild anaemia, no jaundice , no lymphadenopathy and no organomegaly. Uterine height corresponded to her gestational age during routine antenatal visit. There was a single fetus in longitudinal position and cephalic presentation. She had no features of heart failure and other systems were unremarkable. Her hematological investigations showed Hb%-10.9 gm/dl , platelets count – 100000/ mm^3, prothrombin time 14sec . There was reticulocyte and both direct & indirect Coomb's test was strongly positive. Her Anti-nuclear factor was negative , Anti DNA (DS)–not detected , complement C3,C4 level was normal. A cardio-tocography showed reactive tracing, while ultrasound scanning of Uterus showed no evidence of IUGR or fetal abnormality at 37 weeks pregnancy during antenatal check up.

At 38 weeks pregnancy caesarean section was done due to premature rupture of membrane for 6 hours and Bad obstetrical history and Pregnancy induced hypertension with AIHA. Baby was a healthy boy with good APGAR scores – 7 at 1 min and 10 at 5 mins, physically revealed no abnormality. Her post natal period was uneventful. Both of them were discharged in good stable condition after 1 week. She was on prednisolone 5mg /day during her post natal period and was in regular follow up with normal bilirubin and LDH level.

Discussion:

Autoimmune hemolytic anemia has rarely been reported in pregnancy[7]. We have reported the first case managed in our institute. AIHA is characterized by the development of antibodies directed against one's own red cell antigens. When such an autoantibody belongs to the IgG class, the condition is potentially dangerous to both the mother and the fetus, since IgG crosses the placenta readily.

Chaplin et al. [8] reported that AIHA in pregnancy provoked life –threatening anemia in 40-50% of the mothers and stillbirths or severe post-partum hemolytic anemia in 35-45% of their infants. However Sokol et al. reported from a series of 20 patients that AIHA in pregnancy was usually mild and did not require active treatment[9]. Our patient presented with Pregnancy with pregnancy induced hypertension (PIH) with bad obstetric history (BOH) responded well to a moderate dose of steroid. The close collaboration of obstetrician and hematologist is necessary for optimal patient care. After delivery, the patient should be observed closely for potential exacerbation of AIHA. On discharge patient should be instructed to see the doctor immediately if she notice increasing pallor, dyspnea, jaundice or dark urine.

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