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RESEARCH ARTICLE

ESSENTIAL THROMBOCYTOSIS: A RARE CAUSE OF PRIMARY &SECONDARY POSTPARTUM HEMORRHAGE

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Abstract

Essential Thrombocytosis (ET) is a myeloproliferative disorder of platelet line, which causes thrombosis and hemorrhage and this risk increases in pregnancy for both fetus and mother. We report a case of ET in which pregnancy outcome was good but patient had secondary postpartum hemorrhage (PPH). Increase monitoring and early recourse to intervention and treatment is required in these patients.

Introduction:-

This is a case report of 38-year-old multigravida with Essential Thrombocytosis (ET), who conceived while on Interferon therapy, her antenatal, intrapartum and first week of postpartum period was uncomplicated. She delivered a healthy baby, but she developed hemorrhage after first week of delivery and blood collected inside the uterine cavity, which leads to hematoma formation, sub involution of uterus and anemia.

Case Details:

A 38 years old G6P4+1 presented to our antenatal clinic for Booking of Antenatal care at 15 weeks of gestation, Her BMI was27kgm/m2, She was diagnosed as a case of ET from 2013, while investigating peripheral arthritis and high HB level,and she was on Interferon α-2, low dose aspirin and Enoxaprin ,diagnosis was confirmed by Molecular Genetic Analysis of the JanusKinase2-gene(JAK2). Her previous pregnancies was uneventful with good outcome,Her current pregnancy was uneventful with no other risk factors like GDM,PIH nor anaemia, and she delivered a healthy male baby of 3.2 Kg at 39weeks. No hemorrhage during hospital stay. She was discharged on low dose Aspirin and Enoxaprin for 6 weeks. At 9th postnatal day she presented in emergency with excessive vaginal bleeding and giddiness. On examination she was looking pale, pulse was 106/min, BP was 90/50mm Hg and a febrile. Uterus was 18weeks size, internal os open, blood clots was coming through cervix. Patient was admitted, Enoxaprin stopped. Hb% was 9g/dl (it was 13g/dl after delivery) and platelet count was 172 x 10^3/ul. Pelvic ultrasound scan showed 12x8x11 cm size uterus with 8.8 x 5.2 cm hematoma in uterine cavity. Examination under anesthesia and evacuation of blood clots performed, there was bleeding from placental bed, so Bakeryballoon inserted for 12 hours and Tranexamic acid given. She received 2 units of packed cell volume. Bleeding stopped and uterus involutes ,no other ecobolics used and patient discharged home.Rest of her postpartum recover was unremarkable.

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Patient admitted to hospital again after5months with pregnancy 8weeks with vaginal bleeding,Uss done there was viable fetus corresponding to 8w6d,evidence of hetrogenous subchorionic haematoma measuring about 43x12mm and is seen inducing about 50%decidual sepration.she recived progesterone IM and oral and stopped enoxaparin and low dose aspirin,discharged stable,follow up in ANC high risk pregnancy every 2weeks with haematology follow up in Rashid Hospital till delivery.

She presented in active labor at 39weeks gestation,she delivered live female baby 3.380kg.baby had perineal swelling:benign looking polypoid lesion by USS,uterus and cx and vagina:all normal for follow up after 6weeks.

Patient developed massive primary PPH,shifted to theater for vaginal exploration,no evidence of vaginal or cervical tear seen,uterus was bulky and contracted but blood clots coming out with uterine curretege by blunt currete,trial to insert backery ballon to uterine cavity failed many times as uterus was contracted and expelling the ballon after it,s inflation by 300ml,reducing amount of inflating fluid to 200ml and even 150ml still expelled,fresh blood start to come out which was more watery,so blood transfusion of 4units packed RBCs,4 units FFP,calcium gluconate 1gm iv slowely given,lastely,insertion of the backery ballon under USS guidance,into lower uterine segment and vaginal packing,observe any collection at uterine cavity by USS,no active uterine collection,vitals stable,uterus contracted,no active vaginal bleeding,EBL was 1700ml.Patient kept in ICU under close observation 24hours.

Patient discharged from ICU to postpartum ward vitally stable after removal of vaginal packing and backery ballon.discharged from hospital 3rdpostpartum day stable HB was 10.8gm.Rest of her postpartum recover was unremarkable.

Discussion:-

Essential Thrombocytosis (ET) also known as primary thrombocythemia is a chronic Myeloproliferative disorder in which megakaryocyte proliferation leads to an increase in platelet count (450 x 10^3/ul)[1]. Pregnancy does not affect the course and prognosis of disease. Fertility may be reduced, adverse pregnancy outcome occurs in case of thrombotic or bleeding event. The most common pregnancy related complications are first trimester miscarriage, recurrent miscarriages, pre eclampsia, intrauterine growth restriction and stillbirth. Maternal thrombotic and hemorrhagic complications are rare but more common than normal pregnancy[2]. Thrombohemorrhagic complication risk increases in pregnancy if associated with other risk factors like obesity, previous history of thrombosis, smoking, hypertension, and hypercholesterolemia, factor V Leiden and Antiphospholipid antibodies[3]. These pregnancies should be treated with low dose aspirin and low molecular weight heparin to reduce the risk of thrombosis[4]. Bleeding is usually from gastrointestinal tract and mild. Hemorrhage at time of delivery and in immediate postpartum period uncommon. Secondary PPH is rare. Serious bleeding may start due to simultaneous use of antithrombotic therapy with anticoagulants or antiplatelets. Same happened in our reported case, patient started to have vaginal bleeding after 8 days of delivery. She presented next day which caused further blood loss, anemia and delay in treatment. Close monitoring and follow up is essential in such cases.

Conclusion:-

All women with Essential Thrombocytosis are at increased risk of thromboembolism and bleeding in postpartum period and are on anticoagulants so need vigilant monitoring for thrombosis as well as for bleeding risk, patient counseling for follow up and early intervention to control bleeding is mandatory.

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