Case Report

Indian Journal of Maternal-Fetal and Neonatal Medicine
Volume 2 Number 1, January - June 2015
DOI: https://dx.doi.org/10.21088/ijmfnm.2347.999X.2115.8

A Successful Pregnancy Outcome: In a Case of Massive Splenomegaly " Case Report"

Author's Affiliation: *Lecturer, Department(s) and institution(s) Obst $ Gynaecology, A.C.P.M. Medical College , Dhule, Post : Morane, Sakri Road Dhule - Maharashtra (India) Pin Code : 424001 **,***Consultant ,Bafna Hospital, Champa baug,sakri road, Dhule-424001.India.

Reprint Request: Ashalata Bafna

Lecturer, Department(s) and institution(s) Obst $ Gynaecology, A.C.P.M. Medical College , Dhule, Post : Morane, Sakri Road Dhule - Maharashtra (India) Pin Code : 424001

E-mail: barkhajainbafna@yahoo.com

Ashalata Bafna*, Barkha Bafna, Amit Bafna*****

Abstract

Background: Splenomegaly with an incidence of 2-5 % is a challenging medical problem. Splenomegaly in pregnancy presents a further testing situation. The diagnosis especially during advanced gestation becomes difficult by clinical examination. Risk of splenic rupture may increase during pregnancy due to several physiological and mechanical reasons. Anaemia which is frequent association with splenomegaly is an important medical condition of pregnancy. *Case Report:* This is a special case report of a woman with massive splenomegaly who was managed through both her pregnancies. Though our patient did not face life threatening splenic rupture during both her pregnancies, but we found association of massive spleen with fetal growth restriction and aggravation of pre-existing anaemia requiring more blood components during her first pregnancy. *Conclusion:* Massive splenomegaly with pregnancy should be considered as high risk pregnancy and tackled with a multidisciplinary approach to achieve safe motherhood.

Keywords: Pregnancy; Splenomegaly; Splenic Rupture.

Introduction

Splenomegaly with an incidence of 2–5 % [1] is a challenging medical problem . The causes of massive splenomegaly (spleen more than 8 cm below costal margin) are myriad ranging from chronic infections and inflammatory conditions to haematological diseases . Spontaneous rupture of an enlarged spleen though rare can be catastrophic [2]. Splenomegaly during pregnancy presents a further testing situation. The diagnosis especially during advanced gestation becomes difficult by clinical examination. Further risk of splenic rupture may increase due to several physiological and mechanical reasons [2]. It is noteworthy that anaemia which is frequent association with splenomegaly is also an important medical condition of pregnancy. This is a case report of a woman with massive spleen managed through both her pregnancies.

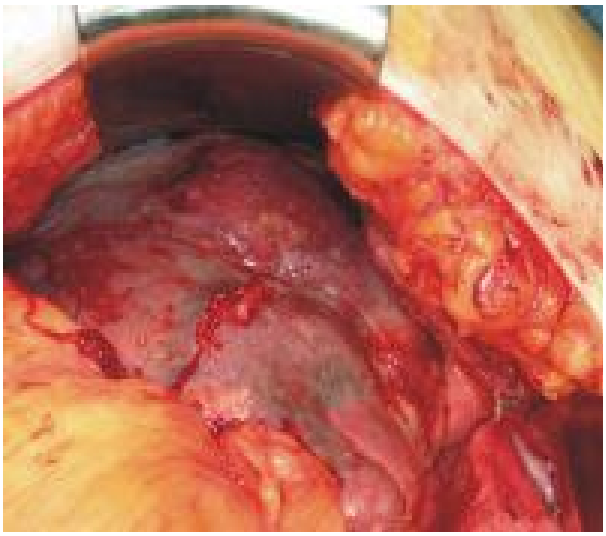
Case Report

A 23yrs primigravida presented with severe anaemia, fever and 2 months pregnancy at Bafna hospital. She was a recently diagnosed case of cryptogenic liver cirrhosis with hypersplenism and extrahepatic portal hypertension on conservative management. On examination she had an enlarged spleen of 14cm below costal margin. Investigations revealed pancytopenia on hemogram (Hb=7.2gm%, TLC=2500/cu.mm, PLT=85,000/cu mm). RBC's on peripheral smear showed anisopoikilocytosis and hypochromasia. ANA, APLA, RA factors were negative ruling out autoimmune haemolytic anaemia. USG whole abdomen showed no hepatomegaly but an enlarged spleen of 24cm and single live intrauterine fetus of 8wks. Upper GI endoscopy revealed no varices. Medical and haematological consultation suggested conservative management and active intervention in the form of platelet transfusion only in case of bleeding. Patient was advised regular ANC visits. She was given weekly

vitamin K injections after 28wks, antenatal course of steroids for fetal lung maturity. She was advised to avoid any trauma on abdomen and report immediately in case of acute pain in abdomen. Patient was advised to get admitted at 40wks for elective caesarean but instead she refused only to come back after few days with a history of high grade fever, leaking of membranes for 48hrs and postdatism. In view of fever, anaemia, risk of sepsis and DIC, need for multiple transfusions she was admitted to ICU with a high risk consent. Patient was transfused with pooled platelets, fresh frozen plasma and whole blood before caesarean her hemogram suggested pancytopenia (Hb=8gm%, TLC=1 200cu.mm, PLT=44 000/cu.mm). Girl child of 2.4kg with APGAR of 8/10, 9/10 was delivered and post op was uneventful. Later mother was followed up with physician and haematologist.

After 2yrs patient presented with 16wks pregnancy with enlarged spleen, generalised weakness and sign of chronic anaemia. Spleen had regressed in size than in first pregnancy and palpable 6cm below costal margin. Extensive counselling regarding importance of regular ANC to achieve safe motherhood was reinforced. Supportive management alike her first pregnancy was given. At 37wks her caesarean was done in view of previous caesarean. Patient was transfused with one whole blood postoperatively. Her hemogram showed normal platelet count and normal PT (INR) with low haemoglobin (Hb=8gm%, TLC=3500cu.mm, PLT=1.15 lakh/cu.mm). She delivered a baby girl of 3.2kg with APGAR score of 8/10, 9/10. Her intraoperative and postoperative recovery was good.

Fig. 1: Massive spleen seen during the cesarean.



Discussion

The study of this particular case shows us that, with proper management pregnancy was well tolerated in massive splenomegaly. However, acute infections can precipitate thrombocytopenia and increase morbidity in the form of increased requirement of blood components, whereas a planned caesarean at term is well tolerated. Splenomegaly is a very common feature of EHPH and physical discomfort of this organ is the only significant clinical complaint. Liver biochemical changes, when present, are trivial but hypersplenism is common and often severe enough to cause pronounced anaemia. Despite the thrombocytopenia associated with hypersplenism bleeding problems rarely occur in these patients as platelets are functionally normal. Hemorrhage from esophageal varices in 40% of the cases, is the most common complication which usually occurs in second and third trimesters due to the exaggerated physiological changes in the circulatory system in pregnancy, temporarily aggravating the portal hypertension [3]. Treatment is usually conservative, unless too much discomfort and severe anaemia warrants splenectomy. Varices to be treated only if symptomatic.

Pregnancy can increase risk of spontaneous rupture of enlarged spleen. Firstly, pregnancy can worsen pre-existing anaemia and also trigger hemolysis which in turn induces massive extramedullary hematopoiesis giving rise to increase in splenic size and finally splenic rupture.

Secondly, mechanical factors like reduction in volume of peritoneal cavity and uterine contractions.

During pregnancy can cause compression of diagphram predisposing to splenic trauma. Thirdly, frequent abdominal examinations and manipulations during labour can also give rise to splenic injury. To prevent this dreaded complication we opted for elective caesarean in this case. Also great care was taken to avoid any abdominal trauma after delivery.

Fetal prognosis when compared between the two pregnancies, we can conclude that massive spleen may lead to growth restricted fetus. The mechanism of IUGR could be due to limited space in the peritoneal cavity for uterine enlargement and also because of associated chronic anaemia [4].

This was affirmatively proved in second pregnancy, when spleen had regressed a little bit, haemoglobin and platelet count was maintained. She had a bigger and healthier baby (F.wt – $Baby_1$=2.8kg

, $Baby_2$=3.2kg). Further studies are needed to help us understand the exact pathophysiology of such clinical situations.

Conclusion

Splenomegaly in pregnancy should be considered as a high risk pregnancy and needs to be dealt with utmost care as it can cause serious maternal and fetal complications. All in all a multi-disciplinary approach, patient awareness and education can go a long way to achieve the goal of safe motherhood.

References

1. Kaplan, Lewis J, David Coffman. "Splenomegaly." E medicine. Eds Wadie F Bahou, et al. 5th Oct 2004.
2. Renzo Boldorini, MD, Cristina Bozzola, MD, Eleonora Gallarotti, MD, Raffaella Ribaldone, MD. "Fatal splenic rupture in a pregnant womanwith HbC/-Thallessemia and myeloid metaplasia. Arch Pathol Lab Med. 2006; 130: 1231–1232.
3. Huchzermeyer H; Leber Magen Darm. "Extrahepatic portal hypertension and pregnancy." 1975 Oct; 5 (5): 209–213.
4. Pratima MIttal, Jyotsna Suri, Reeta Bansiwal. "Massive splenomegaly in pregnancy: A review of three cases." JMEDS, July 2013; (2) ; 5024–5046.