Enigma of Gestational hypertriglyceridemia – A Case of Pink Blood Conundrum

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Abstract- Gestational hypertriglyceridemia although a rare disease, causes sequential derangement in lipid profile affecting pregnancy. This case report accounts for a young lady who developed gestational hypertriglyceridemia due to presumptive obesity and diabetes leading to acute pancreatitis during pregnancy , accidental finding of pink blood during surgery , and eventually successful fetomaternal outcome afterwards.

Index Terms- Hypertriglyceridemia, Lipid profile , Pregnancy, Statins

I. INTRODUCTION

Gestational hypertriglyceridemia is a rare entity. [1] It is a well-recognized fact that pregnancy induces changes in lipid fractions and their level rises. There is 2-to-4-fold rise in plasma triglycerides [2]. Usually, these changes barely cause any significant symptoms unless the levels rise above the 95th centile [3]. We, hereby present a case of 24 years old obese, diabetic pregnant female with incidental finding of hypertriglyceridemia. Informed consent was taken from the patient.

II. CASE REPORT

This case belongs to 24 years old G2P1A0, obese, diabetic, hypertensive pregnant female with BMI 34.4 who underwent planned elective cesarean section due to Fetal Growth restriction at 37 weeks of gestation and delivered a baby boy of 2.2 kg with good APGARS. Intraoperatively, incidentally blood was noted to be turbid and pink in color with thick viscosity. Serum Sample was sent immediately to asses lipid fractions which turned out to be as follows : Serum Cholesterol: 844mg/dl, serum Triglycerides : 1350mg/dl , Serum HDL : 291mg/dl, Serum LDL : 260 mg/dl, vLDL: 267 mg/dl.

This female was diabetic previously when she got pregnant and was already commenced on tablet metformin 500mg TDS with HBA1c 4.9mmol/l. She also had hypertension for which she was taking tablet methyldopa since start of the pregnancy. She deferred any history of such pink blood in her previous pregnancy and delivery which was done from another hospital.

She presented at 24 weeks of gestation with acute pancreatitis which was thereafter diagnosed clinically , ultrasonographically and laboratory raised lipase levels . She was managed conservatively with multidisciplinary approach in intensive care unit. Her lipid profile at that time was as follows : Serum Cholesterol: 282mg/dl, serum Triglycerides : 1272mg/dl , Serum HDL : 18mg/dl, Serum LDL : 4 mg/dl, vLDL: 252 mg/dl. However, samples taken were normal at that time . Dietary and lifestyle modification was advised along with anticoagulants in the form of LMWH .

Afterwards patient had routine antenatal checkups with obstetrician and followed for any complications. Eventually, she developed pre eclampsia with proteinuria and Fetal growth restriction on Doppler scan. Feto-maternal monitoring was continued antenatally .

She underwent planned cesarean section @ 37 weeks gestation. During surgery, blood was noticed to be turbid pink and viscous. Diagnosis of gestational hypertriglyceridemia was made on the basis of her lipid profile as previously there was no such history of pink blood. Patient had hypertriglyceridemia during pregnancy whose levels rose sequentially. She was commenced on statins with advice on dietary modifications post operatively. Post natally, she was followed with lipid profile which turned out to be normal. She deferred any similar case in her family.

TABLE: 1 SERIAL LIPID PROFILE OF PATIENT

Duration	Cholesterol Mg/dl	Triglycerides Mg/dl	HDL Mg/dl	LDL Mg/dl	vLDL mg/dl
Normal range	<200	<150	40-60	<150	<28
24 weeks gestation	282	1272	18	4	252
37 weeks	844	1350	291	260	267
Follow up (3rd month)	250		39	100	20

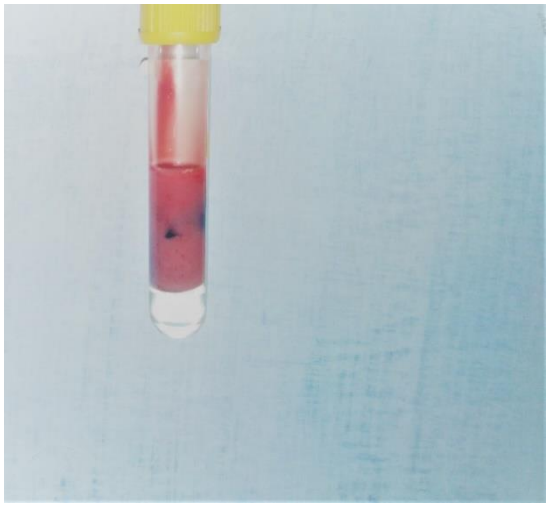

Figure 1: Sample of patient Intra operatively

Figure 2: Pelvic Drain Color of the patient post operatively

III. Discussion

Gestational hypertriglyceridemia being a rare entity usually starts from the 2nd trimester antenatally and lipid fraction increases till 36 weeks and plateau remains postpartum for 6 months. [1][2]. Although lipid fraction increase during pregnancy, but severe overt hypertriglyceridemia is the result of obesity, diabetes or estrogen therapy etc. . In this study, patient being obese with BMI 34.4 and known diabetic and hypertensive accounts for severe hypertriglyceridemia which brought attention during incidental findings of surgery . This study found congruent with research done by Inamdar and his co-associates [2].

Hypertriglyceridemia (Serum triglyceride > 1000 mg/dl) is one of the established cause of acute pancreatitis . In our study , patient had deranged lipid fraction when she developed acute pancreatitis at 24 weeks gestation and afterwards lipid profile rose to an extent causing change in color of the blood . [4]

Statins are teratogenic and hence avoided during pregnancy. Therefore, lifestyle modification is the mainstay during pregnancy if not, it encounters major complications including cardiovascular disease , pancreatitis, hyper viscous blood . Patient was advised to keep proper follow up so that above said complications can be avoided in life later on .

IV. CONCLUSION

Hypertriglyceridemia has adverse effects during pregnancy. Although currently, lipid fraction is not measured in pregnancy routinely. High risk patients must be screened on booking for risk of developing Hypertriglyceridemia later in pregnancy so that complications can be avoided.

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