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Isolated Dense Vaginal Varicosities in Pregnancy: a rare case Report

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ABSTRACT: Vaginal varicosities are rare during the pregnancy when present are troublesome due to the risk of extensive haemorrhage in the post partum period. In our case , 28 yr old G2P1L1 previous normal vaginal delivery with 38 weeks of gestation came to labour room in emergency with dense isolated vaginal varicosities in active labour. Patient was taken for emergency caesarean section due to the risk of massive haemorrhage during the child birth due to extensive involvement of vagina . Patient was kept under close monitoring in the postpartum period. Vaginal varicosities regressed on its own. Patient was managed conservatively with good maternal and fetal outcome.

I. INTRODUCTION:

Vaginal varicosities is defined as presence of twisted , enlarged veins in vagina . It occurs as a result of venous congestion and obstruction in both pregnant and non pregnant patients. The occurrence of vaginal varicosities during pregnancy is less common than the occurrence of vulvar varicosities, which occur in 2–4% of pregnancies (1) (2) . In pregnant women they usually develop after 12–26 weeks of pregnancy and largely self-resolve shortly after delivery .(1,3) In non pregnancy state vaginal varicosities are seen in cases of portal hypertension, especially that caused by liver cirrhosis, pelvic congestion syndrome and Klippel-Trenaunay syndrome or Parkes-Weber syndrome.(4–6) They are generally small, can become large enough that concern over rupture and subsequent hemorrhage during vaginal birth has been the concern .(7)Mode of delivery in vaginal varicosities is matter of debate. Our patient has dense isolated vaginal varicosities was in active labour, thus was taken for emergency caesarean section due to the risk of life threatening haemorrhage during the child birth due to extensive involvement of vagina .

II. CASE PRESENTATION:

A 28 yr old G2P1L1 previous normal vaginal delivery with 38 weeks of gestation came to labour room in emergency with dense isolated vaginal varicosities in labour . Patient was taken for emergency caesarean section due to the risk of massive haemorrhage during the child birth. Patient was kept under close monitoring in the postpartum period. Patient could not be evaluated much on admission as patient was in active labour and thus decision of emergency caesarean section was taken. Varicosities regresses on its own. Patient was investigated for the etiology of the varicosity but no etiology could be identified . Our patient had attended menarche at 14 years of age. Patient has no history of bleeding disorders, coagulation defects, varicose veins or hepatic disorders. Her first pregnancy was uneventful. She delivered 2.8 kg male child vaginally in hospital . She had no history of vaginal varicosities or post partum haemorrhage in the previous pregnancy. Ultrasound examination of liver, other visceral organ and pelvis was found to be normal. Doppler examination of lower limbs was found to be normal.

On examination dense tortuous vaginal varicosities involving both lateral walls, posterior and postero lateral walls of the vagina seen. (FIGURE A)Varicosities were involving major portion of the vagina and protruding beyond the hymenal ring.(FIGURE B) Patient was in active labour on arrival to our facility and thus decision of emergency caesarean section was taken as with vaginal mode of delivery patient could have landed in to life threatening post partum haemorrhage. Patient delivered 2.5 kg female child. Vaginal varicosities started resolving spontaneously. Patient was closely monitored, follow up till 6 week and managed conservatively.

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FIGURE A – PRE OPERATIVE EXTERNAL APPEARANCE

FIGURE B – PRE OPERATIVE ON EXAMINATION

III. DISCUSSION AND CONCLUSION:

Many cases of vulval or vulvo- vaginal varicosities have been reported either in pregnant or non pregnant state. Very few cases of isolated vaginal varicosities in pregnancy have been reported in the literature. (5,7–9) There are primarily two anatomical reasons which makes it unlikely to cause varices of the vagina and uterus . Firstly venous plexuses of uterus primarily drains into the uterine veins and later in hypogastric veins and they are in abundant in nature . Also, The vaginal venous plexus similarly drains into the hypogastric veins via bilateral vaginal veins. The plexuses are in communication with each other and with the vesical and hemorrhoidal plexuses. Second, the nearest and only native communication between these networks and portal drainage is the superior portion of the hemorrhoidal plexus.(5)

While , there are some physical changes which occurs in pregnancy leading to development of varices - 1)venous distension due to expansion of plasma volume 2)hormonal changes 3) increased intra-abdominal pressure 4)compression of the inferior vena cava and pelvic veins by the gravid uterus.(7) Vulvar varicosities in pregnancy are managed conservatively since majority of them revert back to normal. Ultrasound evaluation of lower extremities should be conducted to rule out deep vein thrombosis. Superficial venous thrombosis is also a risk factor for venous thromboembolism. Antithrombotic prophylaxis with use of low-molecular-weight heparin is considered during pregnancy and postpartum period. (9) In cases of hysterectomy Orlando et al. found that the loss of uterine venous plexus, creates situation in which congestion of the vaginal network could occur thus creating an ideal environment for varicosities formation.(10)

Study by Gant et al. states that in pregnancy there is acquired resistance to Angiotensin II . Prostacyclin (PGI2) which has been implicated in angiotensin resistance during normal pregnancy is increased during late pregnancy .(11) The femoral venous pressure rises gradually from approximately 8mmHg at the beginning of pregnancy to approximately 24mmHg at term but antecubital venous pressure does not change . The growing fetus compresses IVC which causes asymmetrical venous pressure changes. The venous blood of the pelvis drains mainly through three pathways: internal iliac vein, femoral vein, and ovarian vein. Decreased pelvic venous return with IVC occlusion due to the enlarging uterus contributes to the formation of vulvar and vaginal varicosities in pregnancy.(12)

In pregnant women varices usually develop after 12–26 weeks of pregnancy and largely self-resolve shortly after delivery .(1,3) In non pregnancy state vaginal varicosities are seen in cases of portal hypertension, especially that caused by liver cirrhosis, pelvic congestion syndrome and Klippel-Trenaunay syndrome or Parkes-Weber syndrome.(4–6)

Due to self resolving nature of the varices conservative management with close monitoring was done. If they bleed the treatment comprises of two stages: resuscitation and local controlling the haemorrhage with tamponade and, subsequently, determining the cause and treating the underlying disease if any .(7,13,14)

In literature there are no clear consensus on the mode of delivery. Furata et al reported that vulvo vaginal varicosities get compressed by the foetal head from the inside, and markedly diminished in size during crowning and after delivery with minimal risk of rupture or haemorrhage . ThusWomen with vulvo vaginal varicosities can be allowed to deliver vaginally regardless of their severity.(9)

Contrary to it Kikuchi et al. documented life threatening vaginal bleeding in a patient with vaginal varicosities after delivery of a 2562 g male infant with resultant hypotension treated with vaginal packing and blood transfusion. Despite of balloon occlusion of the bilateral common iliac arteries sufficient hemostasis was not achieved and stepwise vaginal packing removal done on day 48of the puerperium(7).

Sueyoshi et al reported large vaginal varicosities in absence of known hepatic or vascular disorder in pregnancy with history of previous multiple caesarean section , caesarean section being considered safe for termination as vaginal varicosities pose risk of haemorrhage in the post partum period.(8)

Due to the risk of life threatening haemorrhage post delivery decision of termination by caesarean section was done in our case - varicosities are being managed conservatively and on close serial follow up they regressed on their own.

There are no consensus on the mode of delivery in cases of dense vaginal varicosities and thus mode of termination should be properly assessed with patient context. If anticipating massive life threatening haemorrhage in the post partum period caesarean section should be preferred over vaginal delivery for good maternal outcome.

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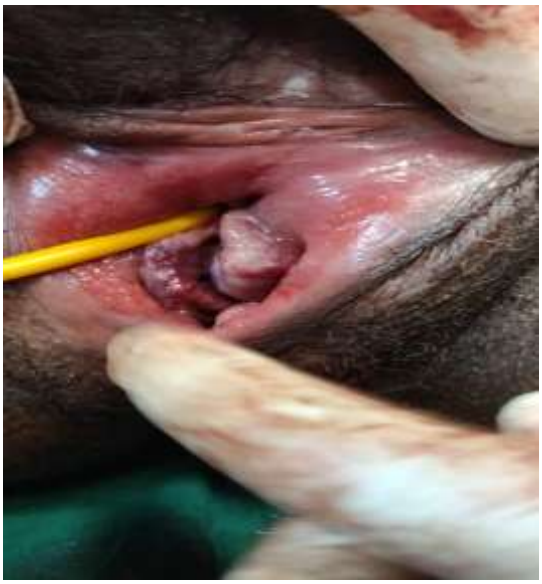

FIGURE C -POST OPERATIVE DAY 1

FIGURE D -POST OPERATIVE DAY 3

FIGURE E -POST OPERATIVE DAY 5

FIGURE F -POST OPERATIVE DAY 14

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