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Case Report

## Large vaginal varicosities in the pregnancy without any known systemic disease: a rare case report

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### ABSTRACT

Vaginal varices during pregnancy is a rare condition. Only a few cases have been reported in the literature. Most vaginal varices are asymptomatic, but some are associated with a sense of local mass, or severe discomfort and spontaneous vaginal bleeding. A 26-year-old woman was admitted for spontaneous vaginal bleeding at 38 weeks' gestation. Upon pelvic inspection, we observed dilated vascular structure on the sub-urethral vaginal wall, and the trans-labial ultrasound imaging revealed a blood flow along the vaginal area, confirming the presence of a vaginal varicosity (Figure 3). We concluded that the mass was large vaginal varicosities as there was no discernible etiology. Instead of a normal delivery, we performed a cesarean section to prevent the potential risk of the profuse vaginal bleeding. For long-term management, close observation in postpartum period was recommended. Spontaneous resolution is a potential outcome and this is what our patient experienced.

**Keywords:** Vaginal varicosities, Pregnant, Cesarean section, Hemorrhage, STI

### INTRODUCTION

Vaginal varicosities are part of a larger set of complications that can occur as a result of venous congestion and obstruction in pregnant and nonpregnant patients alike. This can lead to varicosities anywhere in the genital and pelvic region. The occurrence of genital varicosities in pregnancy is uncommon with vulvar varicosities occurring in 2-4% of pregnancies and vaginal varicosities being even less common.<sup>1</sup> Vulvar varicosities frequently coexist with leg varicosity, but they may appear without other venous pathology.<sup>2</sup> Uncommonly they become massive and almost incapacitating.<sup>3</sup> They usually develop after 12-26 weeks of pregnancy and largely self-resolve shortly after delivery.<sup>4,6</sup> Vaginal varicosities can also be part of a larger syndrome called pelvic congestion syndrome which often presents in pregnant patients as a constellation of pelvic pain, dyspareunia, dysmenorrhea, dysuria, vulvar, and peri vulvar varicosities.<sup>7,8</sup> Although generally small, vaginal and genital varicosities can become large enough that

concern over rupture and subsequent hemorrhage during vaginal birth has been raised by some practitioners.<sup>4,9</sup> This has led some physicians to utilize cesarean section in selected cases to avoid the risk of hemorrhage, although due to limited reports the utility of this approach is not known.<sup>9,10</sup> In this case we present large vaginal varicosities in a 26-year-old primigravida at thirty eight weeks of gestation.

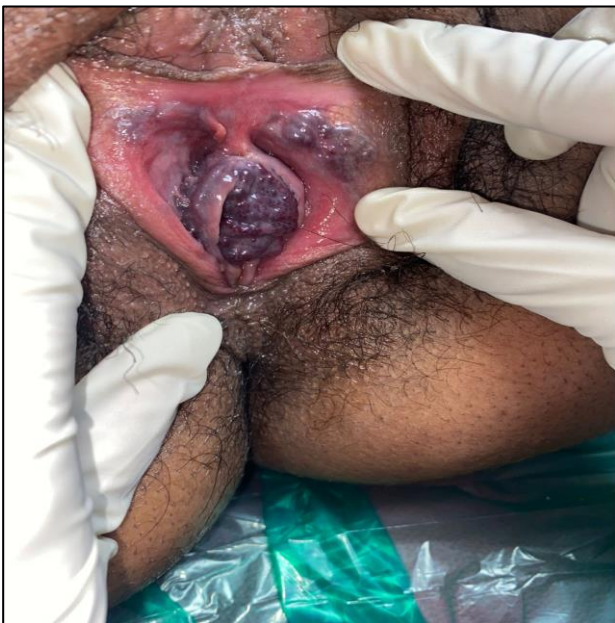
### CASE REPORT

A 26-year-old female primigravida at 38 weeks gestational age dated by last menstrual period presented to the labour room for her spontaneous vaginal delivery. She attained menarche at age 12 and has been regular with a moderate flow lasting approximately 3 days. She has no known history of gynecologic diseases; STI screening with her last pap smear and HPV test were negative. She has no history of past varicosities, coagulopathies, or hepatic disease. She denied any personal or family history of malignancy.

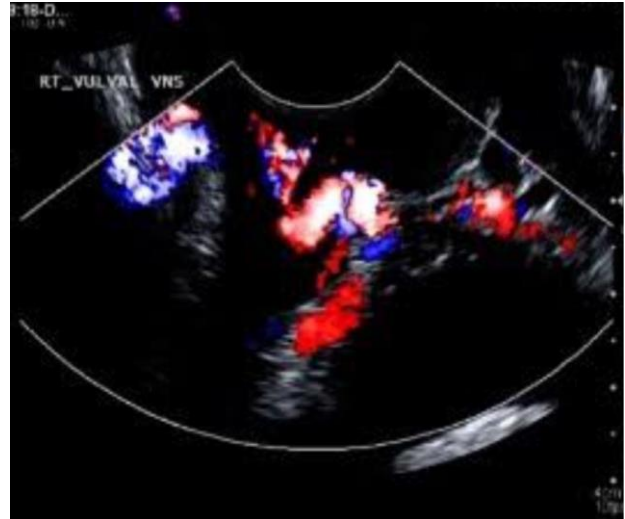
On physical exam, significant anterior and lateral vaginal wall clusters of soft varicosities were noted. The varicosities filled the vagina and protruded beyond the hymenal ring (Figures 1 and 2). The OB/Gyn consulting the local examination recommended C-section due to potential risk for hemorrhage if the patient were to attempt vaginal delivery. As it was a typical with vulvar varicosities, our patient had complete resolution of her vaginal varicosities by her 6-week postpartum examination.



**Figure 1: A strawberry sized vascular lesion on the sub-urethral wall extending to the vagina.**



**Figure 2: Vaginal varicosities exposed during local pelvic examination.**



**Figure 3: Trans-labial ultrasound imaging revealed a blood flow along the vaginal area, confirming the presence of a vaginal varicosity.**

## DISCUSSION

While vulvar varicosities are fairly common in pregnancy, vaginal varicosities are much less common. Much of the literature focuses on vulvar varicosities during pregnancy, usually with spontaneous resolution within six weeks of delivery.<sup>11</sup> Treatment of these varicosities is generally conservative and symptomatic using a pelvic supporter for vulvar compression, leg elevation, minimizing sitting and standing, and exercise.<sup>12</sup> With particularly bothersome vulvar varicosities, a rubber pad suspended the vulva by a belt can be used to exert pressure on the dilated veins.<sup>2</sup> Several of the reported cases of vaginal varicosities are associated with underlying venous congestion due to portal hypertension.<sup>2,10</sup> Vaginal varicosities are believed to be rare due to the number of outlets for venous flow via venous plexuses.<sup>10</sup> The uterus and vagina both have their respective venous plexuses that drain into the hypogastric veins.<sup>10</sup>

## CONCLUSION

Vaginal varicosities can also occur due to diseases of hepatic origin or diseases that include portal hypertension such as liver cirrhosis, NASH, and chronic hepatitis can contribute to varicosities formation. However, our patient did not have a history of hepatic disease, making these two conditions unlikely explanations for her varicosities. Since vulvar varicosities are likely to resolve 6 weeks postpartum, it may be reasonable to assume that vaginal varicosities are also likely to resolve spontaneously, thus conservative management was taken. If the symptoms persist for more than 12 weeks postpartum, the varicosities can be treated with sclerotherapy. Although in some mild cases successful treatment can be achieved with either local excision or sclerotherapy. A laparoscopic ligation of the incompetent veins can be considered in patients with pelvic congestion syndrome.

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