Case study

VULVAR EDEMA WITH SEVERE PREECLAMPSIA: CASE REPORT

ABSTRACT:

Massive vulvar edema during pregnancy is usually benign. Which is often associated with patient discomfort and it is important to find the cause, as the management is influenced by the cause of edema.

At the end of this case report we will focus on the causes of vulvar edema in pregnancy as well as its management.

Keys words: vulvar edema, preeclampsia

INTRODUCTION

Several cases of the massive vulval oedema has been described in the literature associated with, diabetes, pre-eclampsia, vulvo-vaginitis, hypoproteinemia, and multiple pregnancy (1-2). Very rarely is the occurrence after tocolytic therapy. In this report, we describe a case of vulvar edema in a gravid preeclamptic patient in a case in the gynecological and obstetrical department the Souissi maternity hospital Rabat.

CASE REPORT

Mrs ZR, 19 year old female patient, gravida 1, para 1, G1 current pregnancy, which estimated at 34 weeks and 4 days. Was transferred from a peripheral hospital to our tertiary care center with a main complaint of swelling of external genitalia for four days and pain. There was no other significant past,obstetric, or surgical history.

On examination, the patient was afebrile, the blood pressure was 160/90 mm Hg and pulse rate was 86 per min. Obstetric examination revealed the fetus was in cephalic presentation, the fundal height was 30 cm and normal active fetal heart rate. Pelvic examination including inspection of the vulvar showed a massive bilateral vulvar edema more marked on the right side and moderate pedal edema beyond the ankles. Obstetric ultrasound revealed a progressive monofetal pregnancy in cephalic presentation fundic placenta estimated at 2200g.

The laboratory exams revealed a positive proteinuria at 3+, The 24 h urine collection showed significant proteinuria at 4.4 g/24 H. The Other laboratory tests were within the normal range. The diagnosis of severe preeclampsia was made.

Anti-Hypertensive treatment with methyldopa and magnesium sulphate to prevent convulsion. Administration of steroid to accelerate fetal lung maturity and bed rest. Despite all these measures and maximum dose of anti-hypertensive treatment, the patient kept a high blood pressure 180/110 mmHg and a severe headache with a nonreactive fetal heart rate pattern.

An emergency C-section was indicated resulted in the delivery of a live born female of 2140g grams and Apgar score 6-10 at first and fifth minutes, respectively. During the operation aspirated almost 600 cc's of ascites.

During postpartum monitoring, the patient showed regression of her vulvar edema with stabilization of blood pressure and negative proteinuria.

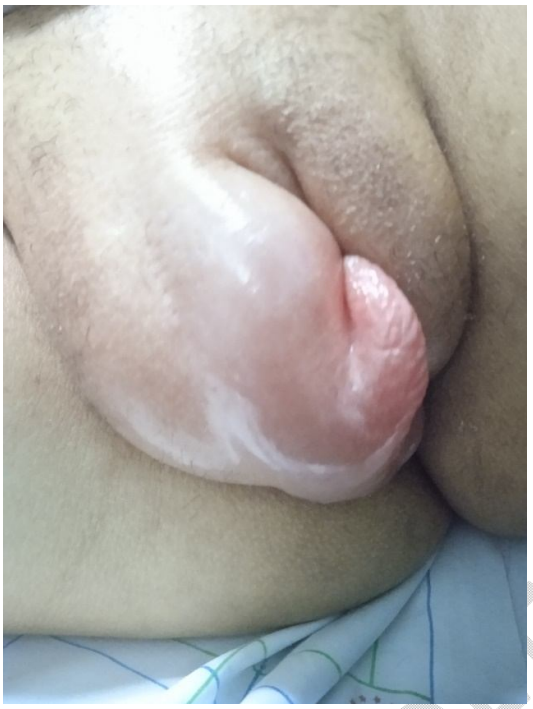

FIGURE 1: VULVAR EDEMA

DISCUSSION:

Vulvar edema is associated with a variety of conditions. The edema can result from inflammatory conditions, infections, infestations, trauma, pregnancy, tumors and iatrogenic causes. At times, it is difficult to determine the cause of the vulvar edema.

This condition should be taken cautiously since it might be caused by pre-eclampsia or diabetes (3). During pregnancy, the significant increase in blood volume, blood pressure, and vascular permeability, coupled with compression of the inferior vena cava by the growing uterus, can cause edema. While the exact pathophysiology of preeclampsia remains poorly understood, the disease is characterized by both systemic and localized vascular endothelial dysfunction. This is demonstrated focally in the pulmonary edema, cerebral edema, and hepatic capsule rupture and failure, all of which are significant risks of preeclampsia (4).

As for the modalities of management, a surgical treatment by draining the edema (5-6) and in some cases is management that is more conservative (7) in most cases resolves spontaneously after delivery such as our case report

Treatment of vulvar edema is necessary, since it is painful, uncomfortable and may cause occlusion of the vaginal outlet and makes a vaginal delivery extremely painful with a high risk of infection of the edema (8). If a conservative treatment is indicated for vulvar edema, a symptomatic treatment should be instituted which include bed rest, Trendelenburg

positioning, and application of ice bags, hypertonic saline bags and local antibiotics, with a close monitoring of the evolution of the edema (9).

CONCLUSION:

Spontaneous massive vulvar edema is uncommon during pregnancy with management challenges and significant patient discomfort especially pain, Vulvar edema should also be considered as in important marker for severe preeclampsia. The management of the vulvar edema depends on the cause and its clinical impact.

CONSENT

An informed consent was obtained from the patient for this publication.

REFERENCES:

(1). Reynolds, D. (2003) Severe gestational edema. Journal of Midwifery Woman's Health 48, 146-148.

(2). Saha, P.K. (2007) Massive vulval edema in pregnancy. Internet Journal of Gynaecology and Obstetrics 6

(3). Bush, J.P. (1946) Oedema of vulva due to toxaemia of pregnancy. British Medical Journal 2, 988.

(4). A. J. H. M. Houben, P. W. de Leeuw, and L. L. H. Peeters, "Configuration of the microcirculation in pre-eclampsia: possible role of the venular system," Journal of Hypertension, vol. 25, no. 8, pp. 1665–1670, 2007

(5). T. Radomański, R. Sikorski, and E. Baszak, "Vulvar edema in pregnancy," *Ginekologia Polska*, vol. 69, no. 12, pp. 1067–1070, 1998.

(6). J. S. Lindsey and J. E. DeVente, "Surgical Management of Massive Labial Edema in a Gravid Preeclamptic Diabetic," *Case Reports in Obstetrics and Gynecology*, 2014.

(7). O. Deren, I. Bildirici, and A. Al, "Massive vulvar edema complicating a diabetic pregnancy," *European Journal of Obstetrics & Gynecology and Reproductive Biology*, vol. 93, no. 2, pp. 209–211, 2000.

(8). L. Trice, H. Bennert, and P. G. Stubblefield, Massive vulvar edema complicating tocolysis in a patient with twins: a case report, J Reprod Med, 41 (1996), 121–124.

(9). E. S. Guven, S. Guven, T. Durukan, and L. Onderoglu, Massive vulval oedema complicating pregnancy, J Obst Gynaecol, 25 (2005), 216–218