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Case Study

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# MASSIVE VULVAR OEDEMA OF POST PARTUM: A CASE REPORT

S. Ihssane\*, F. Ait Elfade, J. Kouach, M. Elhassani, A. Babahabib and D. Moussaoui

Department of Gynecology and Obstetrics - Military Hospital of Instruction Mohammed V-Rabat.

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\*Corresponding Author

Dr. S. Ihssane

Department of Gynecology and Obstetrics - Military Hospital of Instruction Mohammed V-Rabat.

# **ABSTRACT**

Massive vulvar edema in postpartum women is a very rare or even exceptional entity, but requires special attention because it can be grafted with serious maternal complications. Its pathophysiology can be relayed to the hypoprotidemia often associated with severe preeclampsia. Its evolution was favorable under well-managed symptomatic and etiological treatment.

**KEYWORDS:** vulvar oedemea, pre-eclampsia, post partum.

# INTRODUCTION

Massive vulvar edema in postpartum women is a very rare or even

exceptional entity, but requires special attention because it can be grafted with serious maternal complications. We report the case of massive postpartum vulvar edema with a review of differential diagnoses, etiologies, potential complications and treatment options.

# **OBSERVATION**

This is a 31 year old patient, G4 P1, A RH+group, with a history of term delivery by cesarean section for dystocia of the active phase of labor, two early abortions, and two late abortions at 16 weeks, and a negative abortive disease assessment (in particular hsc dc, candles hagards negative).

The current pregnancy estimated at 26 weeks SA + 2 days followed by a specialist doctor in the private sector having benefited from several prenatal consultations and ultrasound, sent by his attending physician for high blood pressure and an oligoamnios but without any documents.

The clinical examination found a patient in fairly good general condition, normo-colored conjunctiva with an hypertention varying between 172/113 right arm and 171/112 in the left arm with a monitoring: 180-160 in systolic and 111-104 diastolic, a Labstix 2 cross, the edema of the lower extremities arriving ankles, neurosensory signs: type buzzing ears, no headache.

Gynecological examination located normal uterine size has with a adipose panicle, active movements fetal present, no uterine contractions, vulvo-perineal inspection is without particularities, vaginal contact finds a long closed posterior collar and a flexible lower segment.

Obstetric ultrasound performed in search of fetal repercussions; after conditioning and careful hydration with 500 cc of 9% saline serum and hypertention balance: Evolutionary mono fetal pregnancy with a biometry lower than the gestational age, amniotic fluid in reduced quantity only one tank to 2 cm a reserve flow to the umbilical doppler, cerebral Doppler resistance index to 0.7.

The biological assessment on admission had objectified: a hemoglobin at 12.2 g/dl, platelets at 173,000; normal renal and hepatic function apart from an LDH = 287 IU/l a normal emitted protein at 74 g/l controlled 24 hours after the post partum amounting to 30 g/l.

# **CONCLUSION**

This is a 31 year-old patient, G5P1, one living child, ARH + group, history of abortive disease, carrying a scar uterus, admitted at 26 weeks + 2 days for pré- eclampsia with signs of clinical severity (very high blood pressure, signs neuro sensory) and ultrasound (growth restriction and oligohydramnios severe and reserve flow in umbilical Doppler).

After setting condition and careful filling in 500cc of salted serum: the introduction of nicardipine al SAP 2 cc / hour, 2 hours after the patient kept figures tentionnels high ranging between 190-180 systolic and 120 -110, therefore a malignant hypertension poorly controlled in medical treatment with accentuation of neurosensory signs hence the indication of a high emergency route for maternal rescue, having allowed the extraction of a newborn male apgar 2/10 birth weight at 500g. The post partum was marked by the normalization of the emotional figures with disappearance of the neuro sensory signs, the patient kept a good

globe of security with minimal lochia. 24 h later the patient presented a massive edema of 2 large lips without fever or notion of trauma (figure1) with on biological examination a protidemia at 30g / having regressed after increasing daily protein intake and local care; therefore the massive edema of the vulva could be explained by the urine leakage of proteins in the context of pre-eclampsia leading to a decrease in oncotic pressure by hypoalbuminemia brings water back into the interstitial medium.<sup>[6,3]</sup> The formation of massive edema of the vulva is due to its declivity in the supine position and its richness in loose connective tissue with a thin epithelial layer.<sup>[2,3]</sup>



Fig 1: Significant vulvar edema on the left side.

# **DISCUSSION**

Massive postpartum vulvar edema is very rare, rare cases have been described in the literature but in an infectious context associated with fevers, streptococcus and staphylococci have been implicated, with formidable complications, namely postpartum death (1) by cardiovascular collapse and maternal death (5).

Vulvar edema during pregnancy can be associated with several pathologies, in particular: preeclampsia, multiple pregnancies, tocolytic treatment, diabetes, obstructed labor, a prolonged second phase of labor, the use of a birth chair. It may be idiopathic postpartum vulvar edema. It can also be encountered in other situations not specific to pregnancy.<sup>[2-4]</sup>

The massive postpartum vulvar edema in the context of preeclapsia has never been reported in the literature.

The pathophysiology of the appearance of edema in a normal gestational context is multifactorial and involves the activation of the renin-angiotensin system, estrogen and the compression of the inferior vena cava by uterine volume. In pre-eclampsia, the increase in capillary pressure and the decrease in oncotic pressure by hypoalbuminemia brings water back into the interstitial medium.<sup>[6,3]</sup> The formation of massive edema of the vulva is due to its declivity in the supine position and its richness in a loose connective tissue with a thin epithelial layer.<sup>[2,3]</sup> The massive vulvar edema in our patient is probably due to the hypoprotidemia often associated with severe pre-eclampsia.

The treatment is aimed at relieving pain and discomfort and avoiding local complications. It must be etiological each time an underlying cause is found.

Apart from the potential risk of tissue necrosis<sup>[3]</sup>, and the few exceptional cases of maternal death associated with massive postpartum vulvar edema<sup>[2]</sup>, the evolution is favorable under well-managed treatment.

# **CONCLUSION**

Massive vulvar postpartum edema is a rare entity, and has never been reported in the literature in the context of pre-eclampsia, it requires special care and monitoring, the evolution in our case was favorable under symptomatic treatment.

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