

Massive Vulval Edema In Pregnancy

P Kumar Saha, M Rohilla, G Prasad, L Dhaliwal, I Gupta

Citation

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Abstract

Vulval edema is not uncommon in pregnancy. But massive isolated vulval edema is a rare entity and could be because of underlying systemic disease. Hypoproteinemia and pregnancy are known to cause vulval edema. We report a patient with massive vulval edema which resolved with correction of hypoproteinemia.

INTRODUCTION

Clinically detectable edema may be observed in majority (80%) of the women at some or the other stage in pregnancy.¹ Although isolated vulval edema is an extremely rare entity, it may be associated with edema at other places in women with an underlying systemic disease.² Due to presence of abundant loose areolar tissue in this region, vulval edema at times may be out of proportion to the edema at other sites and may become the presenting feature. We describe a pregnant women presenting with massive vulval edema which resolved with correction of hypoproteinemia and topical magnesium sulphate dressings.

CASE REPORT

A 19-year-old primigravida presented with development of massive vulval edema of one week's duration. (Fig. 1)

Figure 1

Figure 1



She was at 35 weeks of gestation which was so far

uneventful. She had a history of mild swelling of feet of same duration. There was no history of fever, headache, drug intake, trauma, pain and itching at vulva or legs. Her food intake was poor during this pregnancy.

Systemic examination revealed abdominal, cardiovascular and respiratory system to be normal. She had a normal blood pressure, temperature and a mild pallor. Obstetrical examination showed about 36 weeks gestation. Examination of vulva revealed a non-inflammatory pitting, edematous swelling of labia majora and minora extending to mons pubis and reaching to the level of upper one third and lower two third of thighs. She had difficulty in walking, to the extent that she could walk only slowly with her legs apart. Examination of vagina and cervix did not reveal any abnormality. There was no regional lymphadenopathy, varicosities or signs of deep vein thrombosis. Mild bilateral pitting pedal edema was also present.

Complete blood count showed haemoglobin of 7.6 gm%, hypochromia, anisocytosis and a normal total and differential leucocyte count. Renal and hepatic function was normal except decreased total serum proteins (4.9 gm/dl) with the albumin and globulin ratio of 1. Her urinalysis, blood sugar, serum calcium and haemoglobin electrophoresis was normal. Potassium hydroxide and a wet mount preparation of vaginal smears were also normal. A diagnosis of massive vulval edema perhaps due to hypoproteinemia and iron-deficiency anaemia was considered and patient was given three units of whole blood. Her dietary protein intake was enhanced. Topical magnesium sulphate dressings were applied over the vulva.

Edema resolved gradually in next 2 weeks. The anaemia

improved (Hb 9.8 gm%) and serum proteins became normal (7 gm/dl). She had a normal vaginal delivery of a live born, 2250 g male baby at 37 weeks of gestation with normal APGAR score. She was discharged on 2nd post partum day. Both mother and her baby were all right on 6 weeks post partum visit.

DISCUSSION

Massive vulval edema in pregnancy is unusual and a cause for concern. Total body water increases to the tune of 6-8 litres in normal pregnancy, two-third of which is extracellular.¹ Any change in factors controlling renal sodium and water and interstitial colloid osmotic pressure can precipitate edema during pregnancy.¹ Underlying systemic disease is a common cause of vulval edema associated with some degree of pedal edema.^{1,2,3}

Massive vulval edema has been reported to occur following tocolysis, vulvovaginitis, Crohn's disease, artificial ascites for adhesiolysis with dextran and pre-eclampsia.^{4,5,6,7,8,9} Differential diagnosis of vulvar edema includes infections, neoplasms, congenital lymphatic anomalies, trauma, inflammatory and metabolic disorders. Interestingly, vulvar edema occurring in immediate post-partum period has been reported to cause maternal deaths due to vascular collapse in six patients with an 80% mortality rate.¹⁰ The present patient's vulvar edema was probably due hypoproteinemia of dietary origin as it responded dramatically to high protein intake. Role of severe anaemia and its resolution with blood transfusions in management of vulval edema is difficult to assess as the patient was not having any hemodynamic complications of anaemia. In our institute we encounter severely anaemic patients with generalized anasarca but this type of isolated massive vulval edema has not been observed before. To the best of our knowledge vulval edema due to

hypoproteinemia in absence of pre-eclamptic toxemia and its dramatic resolution with correction of hypoproteinemia has not been described earlier.

CORRESPONDENCE TO

Dr. Pradip Kumar Saha # 1223 , Sector – 32-B Chandigarh – 160 032 E-mail - Pradiplekha@yahoo.co.in Ph. No. - (0172) 2645262

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Author Information

Pradip Kumar Saha, M.D.

Research Associate, Department of Obstetrics & Gynaecology, Post Graduate Institute of Medical Science & Research

Minakshi Rohilla, M.D.

Senior Resident, Department of Obstetrics & Gynaecology, Post Graduate Institute of Medical Science & Research

G. R. V. Prasad, M.D.

Assistant Professor, Department of Obstetrics & Gynaecology, Post Graduate Institute of Medical Science & Research

Lakhbir K. Dhaliwal, D.G.O., M.D.

Additional Professor, Department of Obstetrics & Gynaecology, Post Graduate Institute of Medical Science & Research

Indu Gupta, M.D., Ph.D.

Professor, Department of Obstetrics & Gynaecology, Post Graduate Institute of Medical Science & Research