Successful management of pregnancy with primary pulmonary hypertension

***M* Banumath [1], *PR* Vydianathan [2]**

Departments of [1] Obstetrics and Gynecology and [2] Cardiology, GKNM Hospital, Coimbatore - 641 037.

Key words : pregnancy, primary pulmonary hypertension, oxygen therapy

Introduction

Primary pulmonary hypertension is a rare, progressive, and currently incurable disease characterized by an increase in pulmonary hypertension without a demonstrable cause [1]. When associated with pregnancy, the maternal mortality ranges from 30 to 50%. We share our experience about the successful outcome of a pregnancy with primary pulmonary hypertension by intermittent nocturnal nasal oxygen therapy.

Case report

A 32 year old primigravida reported to out patient clinic complaining of exertional dyspnea at 14 weeks of gestation. She was married for 13 months and had spontaneous conception. She was normotensive, with pulse rate 70/ minute and sinus rhythm. Elevated jugular venous pressure (JVP) with features of pulmonary artery hypertension (PAH) was present. Respiratory system was clinically normal. Ultrasonography revealed intrauterine viable pregnancy of 14 weeks gestation. Echocardiography showed enlarged right atrium (RA) and right ventricle (RV), no demonstrable shunts, severe PAH with a pulmonary artery pressure of 74 mm of Hg with adequate left ventricle (LV) function, and mild mitral regurgitation.

Discussion with cardiologist led to the decision to continue pregnancy under close supervision by the team. Past history revealed recurrent syncopal attacks diagnosed 6 years back to be due to primary pulmonary hypertension.

We gave her nicardia, cardace, and low dose aspirin ovally. Intermittent nocturnal oxygen therapy was initiated during hospital stay and was continued at home after discharge following proper patient education.

She reported regularly for antenatal check up and was monitored as high risk pregnancy. At 37 weeks of gestation she developed hypertension with a blood pressure of 200/110 mm of Hg and was hospitalized. Next day lower segment cesarean section was performed under epidural analgesia and a female baby weighing 2.8 kg was delivered with good apgar score. No problems were encountered and nocturnal oxygen therapy was continued postoperatively along with other medication. She was discharged on 10th postoperative day with counseling for contraception. She is on regular follow up with our team. Both the mother and the baby are doing well. She is still on oxygen therapy and is now taking tablet erix (Sidenophil) 50 mg daily and also covance, a vasodilatar. Echocardiogrphy revealed persistent pulmonary hypertention with adequate LV function. At her last check up in July 2004 she was doing well but for exertional dyspnoea and occasional episodes of epistaxis, while the 4 year old child was having normal growth and development.

Discussion

Primary pulmonary hypertention associated with pregnancy carries high maternal mortality. Favorable maternal and fetal outcome may occur with multidisciplinary approach. Declining mortality is attributed to earlier recognition, better understanding of pathophysiology, and improvemement in medical therapy with critical care obstetrics. Nocturnal nasal intermittent positive pressure ventilation (NNIPPV) is used to limit chronic respiratory failure in pulmonary alveolar hyperventilation [2]. Adequate mechanical ventilatory assistance during sleep needs to be maintained throughout pregnancy.

In our case NNIPPV was carried out and vasodilators advocated along with it. Inhaled pulmonary vasodilator and epidural analgesia are recommended for cesarian section [3]. Long term prostacylin therapy appears to have sustained efficacy in this disorder [4,5]. Availability and economical constraints are issues in prostacylin therapy.

Early hospitalization and individually tailored medical treatment prevents worsening of pulmonary hypertention and right heart failure. Pulmonary hypertention is a heterogeneous condition in which life expectancy varies. Pregnancy should be avoided and if it occurs a therapeutic abortion advocated [1].

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Correspondence :
Dr. M. Banumathy
Department of Obstetrics and Gynaecology
G. K. N.M. Hospital,
Coimbatore - 641 037.

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Eclampsia in a woman on regular hemodialysis for end stage renal disease with two previous cesarean sections

Thomas *Betsy*, PS *Remani*

The Department of Obstetrics and Gynecology, Amala Institute of Medical Sciences, Thrissur (Kerala).

Key words : end stage renal disease, hemodialysis, eclampsia

Introduction

We report a case of end stage renal disease with two previous cesarean sections on regular hemodialysis who developed eclampsia.

Case report

A 3rd gravida with 26 weeks gestation was admitted from the casualty on 11th November, 2004 at 6.30 AM for acute diarrhea of one day. She had two cesarean sections earlier. She was apparently normal till two years back, when in April 2002 she developed acute gastroenteritis,

acute renal failure and cortical necrosis. She was on regular biweekly hemodialysis in our institution since then. When seen at 6 weeks of gestation she was advised termination of pregnancy which she refused and did not attend the antenatal clinic. She developed two episodes of generalised tonic clonic seizures soon after admission.

Her pulse rate was 100/minute and blood pressure 240/120 mmHg. Other systems were within normal limits except that she was in the postictal phase. The uterus was 26 weeks size, relaxed, and had nontender scar. The fetal heart was regular, and Bishop's score was zero. The diagnosis was acute renal failure wih eclampsia. She was started on Pritchard's magnesium sulphate regimen, nifedipine and antibiotics. Labor was induced with 50µg of misoprostol given vaginally 6 hourly.

Relevant investigations revealed - hemoglobin-10 g/dL. platelets - 1.4 lakh/mm^3, normal bleeding time, clotting time, and prothrombin time, blood urea-139 mg/dL, serum creatinine – 7.8 mg/dL, uric acid - 9.7 mg/dL and liver function tests within normal limits. She underwent hemodialysis in the afternoon and delivered a stillborn male fetus at 9.30 PM after the third dose of misoprostol. As placental expulsion was incomplete blunt cuvettage without anesthesia was done to remove retained pieces. Prophylactic rectal misoprostol 800µg was given to prevent postpartum hemorrhage. Postdialysis blood urea and serum creatinine were 64 mg/dL and 4.3 mg/dL respectively. She made a fast recovery. Her blood pressure returned to normal. She underwent one more dialysis on the 4th day and went home on the 5th day. Contraceptive advice was given. She continues to have dialysis twice a week.

Discussion

Child bearing, may be important to women with renal disease, but pregnancy has generally been regarded as carrying a very high risk in these women. Hypertension is the most common life-threatening problem.Pregnant women with serum creatinine levels of 1.4 mg/dL or greater are at risk for accelerated loss of renal function compared with women who do not become pregnant [1]. Women on dialysis have low fertility, which returns to normal following renal transplantation. For women on dialysis, the likelihood of a surviving infant is approximately 50% [2]. Amoah and Arab [3] reported a pregnancy in a woman with complete anuria.Although she delivered prematurely, the fetal growth remained normal throughout gestation.

Women with end stage renal disease should be advised against pregnancy in the first place. If at all they conceive, termination of pregnancy should be recommended. If they opt for continuation of pregnancy they should be monitored very closely with rigid blood pressure control and regular hemodialysis.

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Correspondence :
Dr. Thomas Betsy
Asst. Prof. of Obstetrics and Gynecology
Amala Institute of Medical Sciences,
Thrissur, Kerala.
Tel. 91 (481) 2307554

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Unusual puerperal complication - rupture of yolk sac tumor

De *Anuradha*, Seal *Subrata Lal*, Pramanik *Sumit Ranjan*, Bhattacharya *AR*

Department of Obstetrics and Gynecology, RG Kar Medical College, Kolkata

Key words : yolk sac tumor, tumor rupture, puerperal complication

Introduction

Yolk sac tumors are commonly found in the age group under 20 years. They consistently produce a fetoprotein which is normally produced in the yolk sac of developing embryo and may serve as a tumor marker in evaluating the course of the disease [1]. The association of endodermal sinus tumor of the ovary with pregnancy is a rare event [2]. We present a case of ruptured yolk sac tumor detected on the first day of puerperium.

Case report

A 20 year old 3rd gravida was admitted in the labor room on 18th June, 2003 at 6 months of gestation with a complaint of pain in the lower abdomen for 1 day. Her last menstrual period was on 5th December, 2002 and expected due date 12th September, 2003. Her pulse was regular and 80 /minute. Blood pressure was 138/90 mmHg. She had mild pallor. On abdominal examination the height of the uterus was more than the period of gestation. Fetal heart sound could not be located, fetal parts were not well palpable. On vaginal examination cervix was soft, 2 cm dilated and effaced, membrane was intact, presentation was cephalic with -2 station. Sonography revealed a single live fetus of 27 weeks gestation, no skeletal abnormality, cephalic presentation, average liquor, fundal placenta, and a large cystic mass above the uterus. Right kidney could not be located. Sonologically the cystic mass was suspected to be a right sided cystic kidney. She did not have any renal complaints and had normal urine output. Labor progressed well and she delivered a live fetus weighing 800 g which died after a few hours due to prematurity. She complained of severe pain in the abdomen. Her pulse rate was 126/minute, and blood pressure 100/70 mm Hg. Abdomen was distended and revealed a tender ill defined mass in the lower abdomen with restricted mobility and dull on percussion. On vaginal examination a tender cystic mass was felt through the fornices and the uterus was not felt separately. On rectal examination there was no ballooning or tenderness. The provisional diagnosis was a twisted ovarian tumor. Abdominal paracentasis showed frank blood. A surgeon was consulted and exploratory laparotomy was done. There was hemopritoneum, and a partly solid and partly cystic right sided ovarian mass with rupture at places was detected. Right ovary with its tumor mass was removed and sent for histopathological examination.

Histopathology: On gross examination an already cut open partly solid and partly cystic structure measuring 12 cm in diameter was seen. External surface was smooth and glistening. Cut section showed variegated appearance with areas of hemorrhage and necrosis. Solid areas had soft brain like consistency and were composed of multiple large and small nodules. No content was identified (Figure 1). Microscopically there was reticular pattern and tangles of papillary processes with central blood vessel, covered by a single layer of anaplastic epithelial cells. Stroma was inconspicuous. The features were those of a yolk sac tumor (Figure 2).

Serum α-fetoprotein level estimation was advised for monitoring the case. She came after 3 weeks for follow up. Sonography showed normal findings but serum α-fetoprotein level was 96.14 ng/mL (normal <13.6 ng/mL). Chemotherapy was started with the following regimes: Day 1, 8 and 15 injection bleomycin 30mg /m^2, Day 1-5 injection cisplatin 20mg/m^2, Day 1-5 injection etoposide 100mg/m^2. Monitoring was done with α-fetoprotein