



OVARIAN HYPERSTIMULATION SYNDROME COMPLICATING MOLAR PREGNANCY- A RARE CASE REPORT.

Obstetrics & Gynaecology

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ABSTRACT

Development of OHSS secondary to suction and evacuation for molar pregnancy in a 19 year old spontaneous naturally conceived primi patient is extremely rare and result in 1% of all cases of molar pregnancy. OHSS generally develops in a conception cycle after beta hCG stimulation as in ovulation induction which results in ovarian multifollicular development and enlargement along with acute fluid shift from intravascular to extravascular space. There is associated increased capillary permeability due to release of vasoactive substances like VEGF leading to leakage of fluid from peritoneal and ovarian surfaces. Extravasation of fluid in the third space leads to development of pleural effusion, ascites, anasarca, thromboembolic complications and multi organ failure and even death. Treatment is mainly conservative and regular beta hCG follow up for molar pregnancy.

KEYWORDS

Beta hCG, molar pregnancy, OHSS, Suction Evacuation.

INTRODUCTION

Ovarian hyper stimulation syndrome is extremely rare without exogenous beta hcg administration and it is a known iatrogenic complication of assisted reproductive technology. The relationship between ohss and beta hcg is related to ovarian neoangiogenesis and VEGF production. Based on the severity of ohss, it is mild, moderate, severe and critical. In molar pregnancy there is higher than normal level of gestational age appropriate circulating beta hcg that stimulates OHSS and can also lead to development of hyperthyroidism due to structural similarity of beta hcg with TSH receptor.

The impact of ohss and hyperthyroidism along with molar pregnancy is extremely fatal on the general health of the patient if not early diagnosed and treated.

Case study

A 19year old primi patient married for 6months came to our OPD with 2months of Amenorrhoea, home Urine pregnancy kit test positive and bleeding per vagina. On clinical examination she was mildly pale, uterus height was more than the period of Amenorrhoea and traces of bleeding per vagina was present. TAS s/o molar pregnancy.

Patient was admitted. Decision of suction and evacuation(s/e) was taken and routine blood investigations along with blood for beta hCG and TSH, free T4, free T3 were sent. Chest xray PA view was done. 1 unit of blood requisition was done. Pre s/e beta hCG level was 215000mIU/ml (day 1), post s/e after 48hours her beta hCG was 1,15,000mIU/ml. Specimen was sent for Histopathological examination which was suggestive of Partial molar Pregnancy.

On day4 patient was complaining of nausea, vomiting and abdominal distension. On clinical examination ascites was present, pedal and vulval edema were also present. TVS was done that was suggestive of symmetric enlargement of bilateral ovaries to a size of 14cm with presence of cysts of varying sizes and presence of moderate ascites.

OHSS was suspected. Routine investigations were sent. Conservative management initiated with strict maintenance of intake and output charting, Injection corticosteroids 100mg TDS initially and subsequently the dose has been reduced, 5% Human Albumin transfusions on alternate day for 10days and Fluid replacement with Normal saline. Patient was followed up with daily haematocrit, Urea, creatinine, LFT, PT INR levels and continuous oxygen saturation monitoring.

On Day 7, her respiratory distress worsened with spo2 at 88% at 15Litre of oxygen per minute. Patient was shifted to Intensive Care unit and a decision of ultrasound guided paracentesis was taken. Her vulval edema was causing her a trouble for which local magnesium sulphate compression was given. Injection Low molecular heparin 40IU s.c OD for 7days and compression stockings were also given

prophylactically. Day 7 beta hCG was 70,000mIU/ml. Injection Furosemide 40mg I.V OD was also given for 2days. Thorax and Abdominal CT was done additionally.

Patient was clinically improved but she was tachycardic and was having palpitations for which ECG and repeat thyroid profile was done. TSH and freeT4 level was suggestive of molar pregnancy induced hyperthyroidism and Propranolol 20mg BD was given orally. Prolactin level was also checked and found out to 120ng/ml with no associated visual complaints. Tab Cabergoline 0.5mg twice a week was started.

On day 14 her beta hCG was 70,000mIU/ml and a decision of Injection methotrexate 1mg/kg of body weight on day1, day3, day5 alternating with Injection Leucovorin 0.1mg/kg of body Weight given of day 2,4,6 was taken. Repeat Suction and Evacuation was also performed.

Her Beta hCG was 30,000mIU/ml on day 4 of methotrexate administration and 10,000mIU/ml On day 7 of methotrexate administration.

Patient was discharged on day 21 following initial Suction Evacuation with beta hCG 10,000mIU/ml, TAS normal study with normal ovarian sizes, empty uterine cavity, no ascites. Serum TSH normal and Serum Prolactin at 60ng/ml.

Patient is on weekly follow up of beta hCG. Barrier method of contraceptive advised till her beta hCG normalises.

DISCUSSION

In our patient, OHSS was secondary to molar pregnancy which is a part of a group of disease classified as gestational trophoblastic neoplasia which originates in the Placenta and has the potential to locally invade the uterus and metastasises to lungs.

Classification of OHSS is based on Signs, symptoms, imaging and test results.

Mild signs and symptoms in 10 to 20% of cases. These are abdominal blotting, mild pain and ovarian size of less than 5 cm. Management is home based with rest, hydration, pain relief and avoidance of physical activity.

5 to 10% Moderate cases there is nausea, vomiting, diarrhoea, USG evidence of ascites, ovary size of 8 to 12 CM, normal laboratory values. Patient needs admission.

1-2% of Severe cases there is clinical ascites, sometimes hydrothorax, acute respiratory distress syndrome, hemoconcentration hct>45%, WBC count of more than 15000, Oliguria with raised serum creatinine, hyponatremia, hyperkalemia, liver dysfunction, anasarca, ovarian size

of more than 12 CM. Critical is extremely rare, with signs and symptoms of tense ascites severe end organ dysfunction hematocrit > 55% WBC count >25000 oliguria with serum creatinine >1.6mg/dl, renal failure, thromboembolic complications, ovarian size of more than 12 CM.

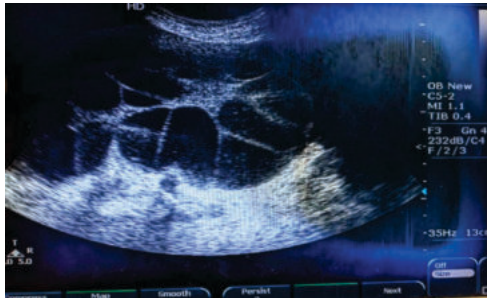
Based on this classification, our patient was having moderate to severe grade of OHSS. Patient was managed at Intensive Care Unit. There is no known preventive measures for OHSS in natural conceived cycle. Treatment is conservative mainly. High dose Cabergoline can be used for its management though not recommended. Whether Bevalizumab could be used in this case requires further discussion.

CONCLUSION

Almost all obstetrician and gynaecologist encounter molar pregnancy cases on regular basis. So they must be aware of the signs, symptoms, complications and management of one of the rarest complications of molar pregnancy that is OHSS.

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Enlarged ovaries showing multiple cyst.