THE JOURNAL OF OBSTETRICS AND GYNECOLOGY OF INDIA

The Journal of Obstetrics and Gynecology of India (March–April 2016) 66(2):120–122
DOI 10.1007/s13224-015-0693-x

CASE REPORT

Gestational Trophoblastic Neoplasia: Challenges Dealt in the Diagnosis

Shaheen Anjum[1] · Kalpana Baghel[1] · Nidhi Garg[1] · Nazoora Khan[2]

Received: 9 March 2015 / Accepted: 30 March 2015 / Published online: 9 May 2015

About the Author

Dr. Shaheen Anjum is a dedicated renowned obstetrician and gynecologist working as an Associate Professor at Jawaharlal Nehru Medical College in Aligarh Muslim University, who fosters learning by evidence-based medicine and has keen interest in preventive oncology, high-risk pregnancy, and geriatric gynecology. Her teaching interest includes clinical teaching, demonstrations, labor management, and imparting surgical skills to post-graduate students.

Introduction

Exaggerated placental site (EPS) is defined as a non-neoplastic trophoblastic lesion where middle trophoblasts infiltrate exaggeratedly into endometrium and myometrium. It consists of cells showing the same immunophenotypical features as the intermediate trophoblasts in the normal placental implantation site and is observed as an exaggerated form of the normal physiological process [1].

Dr. Shaheen Anjum is Associate Professor in the Department of Obstetrics and Gynecology, Jawaharlal Nehru Medical College & Hospital; Dr. Kalpana Baghel is Assistant Professor in the Department of Obstetrics and Gynecology, Jawaharlal Nehru Medical College & Hospital; Dr. Nidhi Garg is Junior Resident in the Department of Obstetrics and Gynecology, Jawaharlal Nehru Medical College & Hospital; Dr. Nazoora Khan is Professor in the Department of Pathology Jawaharlal Nehru Medical College & Hospital.

✉ Shaheen Anjum
shahanjum73@gmail.com

Kalpana Baghel
baghelkalpana13@gmail.com

Nidhi Garg
dr.gargnidhi@gmail.com

Nazoora Khan
profnazoorakhan@gmail.com

[1] Department of Obstetrics and Gynecology, Jawaharlal Nehru Medical College & Hospital, Aligarh Muslim University (AMU), Aligarh, Uttar Pradesh, India

[2] Department of Pathology, Jawaharlal Nehru Medical College & Hospital, Aligarh Muslim University (AMU), Aligarh, Uttar Pradesh, India

Case Report

A 45-year-old female presented to our out patient department with continuous bleeding per vaginum for past 3 weeks. The patient had five previous normal vaginal home deliveries, and her last childbirth was 12 years back. Her prior menstrual cycles had been irregular for 3 to 4 months preceding which they were completely normal. Patient had no significant past or family history. On examination, she had significant pallor with stable vital parameters. Her hemoglobin was 6 gm %. Her abdominal examination revealed a 28–30-week smooth firm mass with restricted mobility, which seemed to be arising from the pelvis. Her pelvic examination confirmed the mass to be mobile with the uterus and was of firm consistency. The patient had active trickling of blood per vaginum. The ultrasound findings revealed a large solid cystic lesion arising from pelvis of approximately 20 × 14 cm, which was not separately visualized from the uterus. On the basis of clinical and radiological findings, differential diagnosis of fibroid uterus was made, and considering her age, the possibility of leiomyosarcoma could not be ruled out. The patient had a normal Chest X-ray & ECG. The patient was advised admission. During the hospital stay, patient was transfused with four units of packed red blood cells to raise hemoglobin. After an informed consent, laparotomy was planned, and total abdominal hysterectomy with bilateral salpingo oophorectomy was done within a week. Specimen revealed a bulky uterus of approximately 18-20 cm. Both the fallopian tubes and ovaries were normal. On Cut section, the large amount of clotted blood was evident within the uterus. Figure 1 shows the gross morphology of the uterus, 20 cm × 15 cm in size with inset showing cut section, revealing clotted blood. Upon removal of blood clots, an approximately 15 × 15 cm mass was felt on the posterior aspect of uterine wall. Along with the uterus, cervical tissue and ovaries, omental tissue, smears from liver, fluids from paracolic gutter, and pouch of doughlas were sent for histopathology and cytology. The postoperative period was uneventful. Histopathology report disclosed that it was gestational trophoblastic disease with *exaggerated placental site reaction*. Figure 2 depicts a photomicrograph showing proliferating trophoblastic tissue and chorionic villi, wherein trophoblastic tissue show focus of invasion into the myometrium shown with an arrow and the inset shows high power of invading cells having atypical features. Postoperatively, β hCG was found to be 1094 mIU/ml which was followed up serially. During the follow-up period, the patient was evaluated regularly with hemogram, ultrasound, chest X-ray, and β hCG, which subsided over a period of 5 months after seven chemotherapy cycles with intravenous injection methotrexate 50 mg. The last value done in February 2015 was 2.76 mIU/ml following, which the patient is being followed up every 6 months.

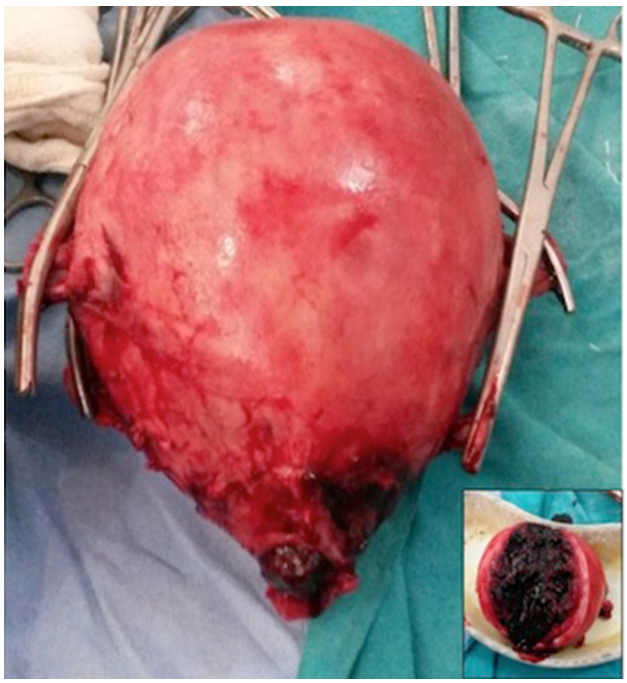

Fig. 1 Gross morphology of the uterus, 20 × 15 cm in size with inset showing the cut section of the uterus revealing clotted blood

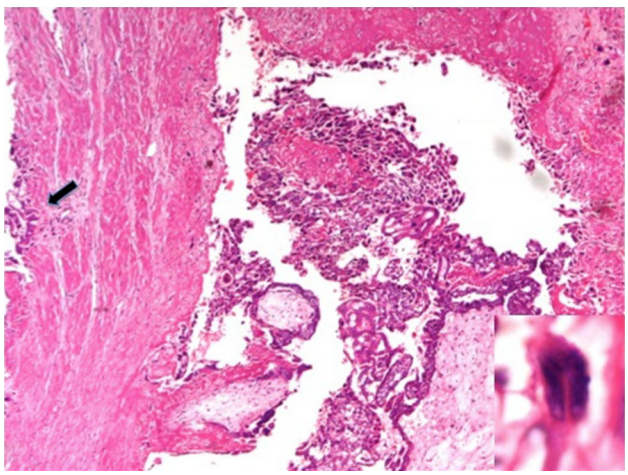

Fig. 2 Photomicrograph showing proliferating trophoblastic tissue and chorionic villi, wherein trophoblastic tissue shows invasion in the myometrium shown with an arrow. The inset depicts high power of the invading cells showing atypical features

Discussion

Gestational trophoblastic disease (GTD) is the term used to encompass a group of tumors typified by abnormal trophoblast proliferation. GTD histologically is divided into hydatidiform moles, which are characterized by the presence of villi and non-molar trophoblastic neoplasms, which lack villi. The malignant forms of gestational trophoblastic disease are termed gestational trophoblastic neoplasia (GTN). These

include invasive mole, choriocarcinoma, placental site trophoblastic tumor, and epithelioid trophoblastic tumor [2]. In this case, a retrospective diagnosis of gestational trophoblastic neoplasia was made. The patient had irregular menses at perimenopausal age group, with pelvic mass, which was confirmed by an ultrasound; thus, fibroid uterus and leiomyosarcoma were kept high in differential diagnosis. An intermediate trophoblast is a distinctive trophoblastic cell population from which four trophoblastic lesions are thought to arise: exaggerated placental site (EPS), placental site nodule (PSN), placental site trophoblastic tumor (PSTT), and epithelioid trophoblastic tumor (ETT). EPSs and PSNs are non-neoplastic lesions, whereas PSTTs and ETTs are neoplasms with a potential for local invasion and metastasis [3]. The pathological significance of EPS has not been clearly determined. And it is a difficult condition for clinicians to diagnose and has not received much attention until now. In fact, only eleven cases have been reported in English, based on PubMed from 1990 through 2014. EPS has been detected in molar pregnancy, cervical pregnancy, abortion or induced abortion of early pregnancy, intrauterine fetal death of 24 weeks gestation, and term pregnancy. It can develop from early to term pregnancy. In the case with the longest interval from the antecedent pregnancy, a lesion or clinical symptom appeared 15 years after delivery, and in the case with the shortest interval, EPS appeared during pregnancy [4].

Conclusion

This case report attempts to illustrate a case of exaggerated placental site which is very few in number. We speculate that gestational trophoblastic neoplasia though a rare clinical case could be kept as a differential diagnosis in a patient with perimenopausal age group with irregular bleeding. In the present case, we considered hysterectomy, for the patient had severe active bleeding. Exaggerated placental site is a condition at the extreme end of the physiological process rather than a true lesion [3]; therefore, the pathological role of EPS needs to be further investigated.

Acknowledgments The author would like to acknowledge the cooperation of the patient in the preparation of this manuscript.

Compliance with Ethical Requirements and Conflict of interest Dr, Shaheen, Dr. Kalpana, Dr. Nidhi, and Dr. Nazoora declare that they have no conflict of interest. The authors are responsible for the contents of the manuscript. All of the authors have read and approved the manuscript. Patient's consent has been taken at every necessary step.

References

1. Ozdemir O, Sari ME, Selimova V, et al. A case report of complete mole with co-existent exaggerated placental site reaction and review of the literature. Niger Med J. 2014;55(2):180–2.
2. Cunningham F Gary. "Gestational trophoblastic disease." Williams obstetrics. 24th ed. New York: McGraw-Hill Education; 2014. p. 396.
3. Shih IM, Kurman RJ. The pathology of intermediate trophoblastic tumors and tumor-like lesions. Int J Gynecol Pathol. 2001;20:31–47.
4. Takebayashi A, Kimura F, Yamanaka A, et al. Exaggerated placental site, consisting of implantation site intermediate trophoblasts, causes massive postpartum uterine hemorrhage: Case report and literature review. Tohoku J Exp Med. 2014;234(1):77–82.