

# Placenta Increta in Week 10 of Pregnancy with Consecutive Hysterectomy: A Case Report

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## ABSTRACT

**Purpose:** Placenta increta in early pregnancy is rare and has been documented in only few cases and is a complication of pregnancy that can be life threatening for both mother and fetus. Thus early diagnosis of this problem is very important. This problem is a result of inadequate development of the decidua. **Case Presentation:** A 26 years old woman (gravida 3, para 2) with history of cesarean section for two times, referred to our center with vaginal bleeding with gestational age of 10 weeks and pelvic ultrasonography showed molar or missed pregnancy. The patient was operated by suction curettage. It's noteworthy to mention that during the procedure sever vaginal bleeding occurred so that total abdominal hysterectomy was done. Histological examination identified placenta increta. **Conclusion:** In our community, the diagnosis and treatment of placenta accrete in early pregnancy are so crucial and must be taken seriously with considering the fact that the number of repeated cesarean section is high and placenta accreta is one of the most important complication of this method.

**Keywords:** Vaginal Bleeding; Early Pregnancy; Abnormal Placentation; Molar Pregnancy; Placenta Increta

## 1. Introduction

Placenta increta is a complication of pregnancy that can be life threatening for both mother and fetus [1]. The abnormally stiff attachment of the placenta might be due to poorly grown decidua in the lower uterine part [2].

Properly, the chorionic villi of the placenta accreta grow into the basal decidua within the uterus, whereas these villi in the placenta increta and the placenta percreta go into the musculature and the myometrium of the uterus respectively [3]. Then, infiltration in the serosa and even in the neighboring organs such as the urinary bladder and bowel can occur and so serious complication may arise [4].

## 2. Case Presentation

A 26 years old woman came to our hospital with chief complaint of vaginal bleeding. The admitted patient was gravida 3 and para 2 at 10 weeks of pregnancy with history of twice cesarean section and had two children that last delivery was 2 years ago.

The patient had been vaginal bleeding since one month previous time admission. Pelvic ultrasonography reported nonviable fetus with gestational age 10 weeks that suggest two differential diagnoses, *i.e.*, missed abortion or molar pregnancy. The laboratory findings of the case was hemoglobin = 9/2 gr/dL and  $\beta$ HCG = 200,000 unit. The liver function test and thyroid function test were normal. Also vital sign of the patient in time of admission was normal.

## 3. Management

In spite of doing suction and curettage for miscarriage, the massive vaginal bleeding continued and hence we had to do the total abdominal hysterectomy for solve of this problem.

During operation bladder dome had been ruptured that repaired by urologist. Blood loss during operation was approximately three liter. So four units packed cell and two units FFP was transfused. During operation no vesicular changes was observed in the placenta. The lower segment of the uterine, at the site of scar of previous cesarean section, was very large and placenta increta was

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diagnosed (**Figure 1**).

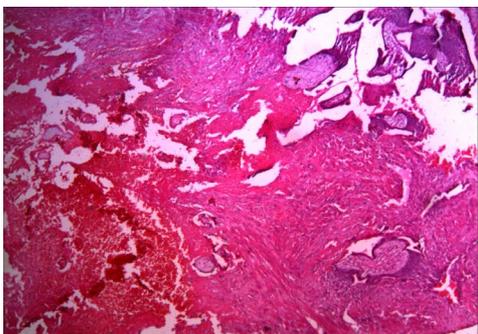
Histological examination demonstrated the presence of placenta increta in the section of uterine specimen with normal endo- and ectocervical mucosa (**Figure 2**). Typical invasive chorionic migratory cells and placental villi were demonstrated in outer layer of the myometrium.

#### 4. Discussion

It was suggested that because of absent or inadequate formation of the decidua, the trophoblast may infiltrate the myometrium [5]. The abnormally stiff attachment of the placenta might be due to poorly grown decidua in the lower uterine part of the uterus [6]. Risk factors for an abnormal placentation include prior cervical dilatation and curettage, endometritis, submucous myomas and uterine scars defect after cesarean section [7-10]. The relationship between abnormal placentation and previous cesarean section was investigated by Clark *et al.* [11]. According in this study [11], the percentage risk for placental disorder, *i.e.* placenta previa, in pregnant woman without prior cesarean section is 0.26 percent and this percentage increased linearly with the number of previous section up to 70 percent at four or more. When a placenta previa is present, the probability of placenta accreta increased from five percent without previous cesarean section to 24 percent with one and up to 67 pre-



**Figure 1.** Pregnancy at the site of scar of previous cesarean section.



**Figure 2.** Placenta increta (penetration of chorionic villi into myometrium of the uterus).

sent with four or more prior section [11]. In a survey of the literature was found only a few cases of placenta increta and percreta in a similar early stage of pregnancy [12]. Monks *et al.* [13] reported a case of G4p<sub>3</sub> with three previous cesarean section that at 10 weeks of gestation with the diagnosis of incomplete abortion that finally placenta accreta was diagnosed. Höpker *et al.* [4] reported a case of G3P2 with abdominal pain in left lower quadrant and diagnosis of incomplete abortion or molar pregnancy that suction curettage was had done for her and because of sever vaginal bleeding that not stopped finally total abdominal hysterectomy was done and histological examination was diagnosed placenta accreta. The simplest, safest and most accurate method of placental location is provided by transabdominal sonography [1]. According to the laying the average accuracy is 96% [14]. Transvaginal sonography improved diagnostic accuracy of placenta previa. MR imaging may help in surgical planning [1]. Levin *et al.* [15] compared the accuracy of MR imaging with abdominal and vaginal sonography and declared that the transvaginal sonography was adequate to diagnose six of seven cases accurately. Also Levin *et al.* [15] reported that the MR imaging to be helpful only in cases in which the placenta lay outside the range, for example posterior placenta accrete, for both transvaginal sonography or transabdominal sonography. Sonography is excellent to determine myometrial involvement [1]. Identification of placenta with bladder wall invasion is less accurate even though if both sonography and MR imaging are used.

#### 5. Conclusion

According to increasing prevalence of repeated cesarean section in our country, it must suspect to impaire normal placenta in the cases that referred with abnormal vaginal bleeding or abdominal pain in the first trimester of pregnancy and also have risk factors for placenta accreta such as suction curettage history, history of repeated cesarean section or endometritis. It helps to decrease morbidity and mortality of these patients.

#### 6. Competing Interests

The authors declare that they have no competing interests.

#### 7. Acknowledgements

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#### REFERENCES

- [1] Y. L. Wang, T. H. Su, W. C. Huang and S. S. Weng, "Laparoscopic Management of Placenta Increta after Late

- First-Trimester Dilation and Evacuation Manifesting as an Unusual Uterine Mass,” *Journal of Minimally Invasive Gynecology*, Vol. 18, No. 2, 2011, pp. 250-253.  
<http://dx.doi.org/10.1016/j.jmig.2010.11.001>
- [2] F. Gary, J. Keneth, *et al.*, “Obstetrical Complication, Williams Obstetrics,” 23rd Edition, McGraw Hill, New York, 2010, pp. 752-795.
- [3] K. B. Tam Tam, J. Dozier and J. N. Martin Jr., “Approaches to Reduce Urinary Tract Injury during Management of Placenta Accreta, Increta, and Percreta: A Systematic Review,” *Journal of Maternal-Fetal and Neonatal Medicine*, Vol. 25, No. 4, 2012, pp. 329-334.  
<http://dx.doi.org/10.3109/14767058.2011.576720>
- [4] M. Höpker, G. Fleckenstein, W. Heyl, B. Sattler and G. Emons, “Placenta Percreta in Week 10 of Pregnancy with Consecutive Hysterectomy: Case Report,” *Human Reproduction*, Vol. 17, No. 3, 2002, pp. 817-820.  
<http://dx.doi.org/10.1093/humrep/17.3.817>
- [5] A. Takeda, K. Koyama, S. Imoto, M. Mori, T. Nakano and H. Nakamura, “Conservative Management of Placenta Increta after First Trimester Abortion by Transcatheter Arterial Chemoembolization: A Case Report and Review of the Literature,” *Archives of Gynecology and Obstetrics*, Vol. 281, No. 3, 2010, pp. 381-386.  
<http://dx.doi.org/10.1007/s00404-009-1238-2>
- [6] M. C. Frederiksen, R. Glassenberg and C. S. Stika, “Placenta Previa: A 22-Year Analysis,” *American Journal of Obstetrics & Gynecology*, Vol. 180, No. 6, 1999, pp. 1432-1437.  
[http://dx.doi.org/10.1016/S0002-9378\(99\)70031-1](http://dx.doi.org/10.1016/S0002-9378(99)70031-1)
- [7] S. K. Doumouchtsis and S. Arulkumaran, “The Morbidly Adherent Placenta: An Overview of Management Options,” *Acta Obstetrica et Gynecologica Scandinavica*, Vol. 89, No. 9, 2010, pp. 1126-1133.  
<http://dx.doi.org/10.3109/00016349.2010.503869>
- [8] P. Sinha and M. Mishra, “Caesarean Scar Pregnancy: A Precursor of Placenta Percreta/Accreta,” *Journal of Obstetrics & Gynaecology*, Vol. 32, No. 7, 2012, pp. 621-623.  
<http://dx.doi.org/10.3109/01443615.2012.698665>
- [9] J. Donnez and P. Jadoul, “What Are the Implications of Myomas on Fertility? A Need for a Debate?” *Human Reproduction*, Vol. 17, No. 6, 2002, pp. 1424-1430.  
<http://dx.doi.org/10.1093/humrep/17.6.1424>
- [10] P. C. Yu, H. Y. Ou, L. L. Tsang, F. T. Kung, T. Y. Hsu and Y. F. Cheng, “Prophylactic Intraoperative Uterine Artery Embolization to Control Hemorrhage in Abnormal Placentation during Late Gestation,” *Fertility and Sterility*, Vol. 91, No. 5, 2009, pp. 1951-1955.  
<http://dx.doi.org/10.1016/j.fertnstert.2008.02.170>
- [11] S. L. Clark, P. P. Koonings and J. P. Phelan, “Placenta Previa/Accreta and Prior Cesarean Section,” *Obstetrics & Gynecology*, Vol. 66, No. 1, 1985, pp. 89-92.
- [12] M. Pont, E. Kouadio, M. P. Fernandez, M. Bottaro, M. Augros, I. Bechet, P. Mathevet, J. De Chivré, S. Soler and S. Lantheaume, “Placenta Percreta at First Trimester of Pregnancy. Diagnostic and Decision-Making Difficulties: About a Case and a Review of the Literature,” *Journal de Gynécologie, Obstétrique et Biologie de la Reproduction (Paris)*, Vol. 39, No. 6, 2010, pp. 498-502.  
<http://dx.doi.org/10.1016/j.jgyn.2010.04.009>
- [13] P. L. Monks, S. Catalano and P. J. Close, “A Case Report: Cervical Pregnancy with Placenta Percreta an Ultrasonic Assisted Diagnosis,” *Asia-Oceania Journal of Obstetrics and Gynaecology*, Vol. 19, No. 1, 1993, pp. 37-41.  
<http://dx.doi.org/10.1111/j.1447-0756.1993.tb00344.x>
- [14] F. C. Laing, “Ultrasound Evaluation of Obstetric Problems Relating to the Low Uterine Segment and Cervix,” In: R. C. Sanders and A. E. James, Eds., *The Principles and Practice of Ultrasonography in Obstetrics and Gynecology*, 3rd Edition, Appleton-Century-Crofts, New York, 1985, p. 663.
- [15] D. Levine, C. A. Hulka, J. Ludmir, W. Li and R. R. Edelman, “Placenta Accreta: Evaluation with Color Doppler US, Power Doppler US, and MR Imaging,” *Radiology*, Vol. 205, No. 3, 1997, pp. 773-776.