

Conservative management of abnormal placenta accreta complicating the first trimester abortion: A case report and review of literature

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Abstract

Placenta Accreta (PA) in the first trimester is rare and has been documented in only a few cases. Complication of placenta accreta are many and include potentially life-threatening of pregnancy that can occurs at any time during gestation. Therefore, prenatal diagnosis of PA is paramount to make management plan. We reported a successful outcome of case who had curettage on ground of anembryonic pregnancy diagnosed by ultrasound at 10 weeks. Upon diagnosis of placenta accreta post- first trimester-abortion. Patient was treated conservatively using of combined bilateral Uterine Artery EMBOLIZATION (UAE) and methotrexate therapy.

Keywords

first trimester abortion; placenta accreta (PA); uterine artery embolization (UAE), methotrexate; magnetic resonance imaging (MRI).

Abbreviations

D&C: Dilatation and curettage; b-hCG: B-human chorionic gonadotropin; LAVH: Laparoscopic-assisted vaginal hysterectomy; VB: Vaginal bleeding.

Introduction

As often happens in obstetrics, placenta accreta is a clinical issue and represent a life-threatening concern and pose significant risk of maternal morbidity and mortality [1]. The severity of the complications varies according to the depth of villous invasion. In accreta placentation (PA), is the placental villi simply adhere to the myometrium; placenta increta (PI) when the villi invade the myometrium; and Placenta Percreta (PP) not only is there potential villous invasion of surrounding pelvic organs, but excessive neovascularity is often present making any surgical procedure technically difficult [2]. Though the pathogenesis of placenta accreta is not clear; however, there are several concepts have been proposed to explain why

and how abnormal placental implantation into the uterine wall occurs. The current prevailing hypothesis is that abnormal vascularization resulting from defect of the endometrium-myometrial interface leads to a failure of normal decidualisation appears to be the most prominent theory to date [3]. As there is no doubt that development of PA has been mainly linked to surgical damage to the uterine components, including previous caesarean sections and prior uterine curettage which disrupts the integrity of the endometrio-myometrial interface [4].

There are a few cases of PA have been described in patients with a no scarred uterus had post-partum endometritis or with a uterine pathology such as bicornuate uterus, adenomyosis, submucous fibroids or myotonic dystrophy [3]. These data suggest that even minor traumas and/or chronic inflammation can lead to microscopic defects of the endometrium or interferences with its normal biological functions and contribute to accreta placentation in the next pregnancy [5]. The overall incidence of placenta accreta approximates 1 in 1000 deliveries and with the exponential increase of Caesarean Deliveries (CD) around the world and also with increasing maternal age and the need for artificial reproductive techniques and minor uterine surgical procedures, the number of PA cases will continue to increase making early diagnosis and treatment a priority for patients at risk for abnormal placentation [6]. In clinical practice, most patients with placenta accreta usually are manifests with vaginal bleeding during difficult placental removal at delivery in the third trimester of pregnancy. However, several reports have described it may also complicate first trimester pregnancy termination, causing profuse postabortal hemorrhage [7]. Due to the difficulty in detection of placenta accreta in early pregnancy compared with it's during the second or third trimester of pregnancy along with it is clinically significant because it can cause post-evacuation bleeding and result in difficult clinical management, an Efforts was made to evaluate the first-trimester markers of placenta accreta using of imaging modality, grayscale sonography and Magnetic Resonance Imaging (MRI) [8]. Many imaging cohort studies demonstrated that a low anterior implantation of gestational sac close to/ or within a scar and reduced myometrial thickness are the key sonographic features suggestive of placenta accreta in early pregnancy [9].

The management of placenta accreta after a first-trimester abortion is still quite challenging. Although hysterectomy was the conventional treatment for cases complicated with placenta accreta, this approach not only does preclude future fertility, but it is also a procedure synonymous with significant perioperative risks [10]. Recently, some treatment options have been proposed toward preserving the reproductive function. In some settings, using uterine artery embolization to minimize surgical maneuvers and an adjuvant cytotoxic treatment to expedite resorption of placental tissue may be an alternative strategy [11,12].

Because of the limited experience of single medical centers, little is known about the most appropriate obstetrical management of patients with risk factors for abnormal placental implantation, particularly accreta and who fail medical management for a first trimester abortion. We report a case to present our experience and review the literature on this topic to obtain useful information for clinical, efficacy and safety, management options for placenta accreta after a first-trimester abortion.

Case Report

A healthy 25-year-old Saudi woman, Gravida 2 Para 1, with one previous emergency Lower Segment Caesarean Section (LSCS) for non-reassuring fetal status, diagnosed with of an embryonic pregnancy at week 10 of gestation (calculated). Treated, unsuccessfully, with Misoprostol (failed to achieve a medical termination after three attempts). At that time, the patient was offered the choice of surgical intervention. A curettage was after informed consent performed. Heavy bleeding occurred resulting in hemorrhagic shock. Manual uterine compression was performed, and Tocolytic agents were administered. The patient was resuscitated and the active bleeding was successfully reduced. Two units of packed blood cells and fresh and frozen plasma were transfused at the end of the procedure, and the estimated blood loss was 1400 ml. There was no tissue obtained for histopathologic examination. Over the course of the next two days there was no active bleeding, the patient was stable. Due to a Hemoglobin (Hb) count of 7.5 g/dL an additional two units of packed blood cells were transfused. The patient had an ultrasound that revealed an enlarged well-vascularized heterogeneous mass at the lower uterine segment then referred to our care center in the Department of Obstetrics & Gynecology, KFS-D Hospital, with suspicion of an invasive mole for further confirmation and management (no data shown).

At our hospital, she was vitally stable. Though quantitative Beta HCG (5400 mIU/ml) level was in the normal range, an invasive mole needs to be excluded. Pelvic Magnetic resonance imaging (MRI) was done and showed a prominent vascular placental mass (8.5x 7.7 x 7.8 cm) with heterogeneous signal intensity of placenta on the T2 that completely covered the internal cervical orifice (Figure 1). Both the adnexa and cervix were completely normal and well-preserved. In view of MRI features of placenta accreta and patient's desire to retain her reproductive capacity conservative management was initiated after informed consent regarding potential complications of this approach.

The patient was underwent embolization of the uterine arteries (Figure 2). The post interventional course was uneventful. Subsequently, she received a single dose of 80 mg / m² methotrexate intramuscularly and monitored with Beta HCG, leucocyte count, and LFT on weekly basis along with ultrasound scan. Two month later, the serum Beta HCG value declined to less than 5 mIU/ml and the placental mass tissue disappeared on pelvic ultrasonography (Figure 3). No expelled placenta for pathological assessment.

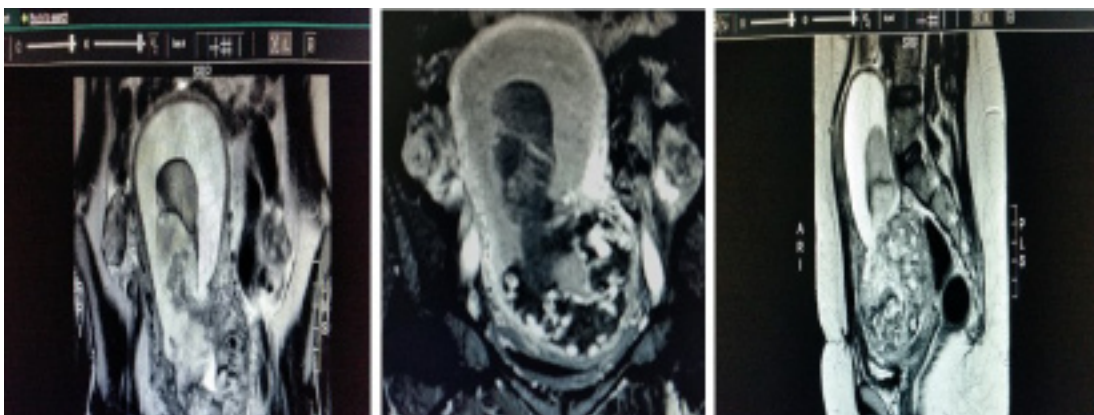


Figure 1: Large heterogeneous soft tissue mass at lower uterine segment cavity covering the internal os, the mass demonstrates heterogeneous signal intensity in T2, hypo intensity in T1 and post contrast brisk non homogenous enhancement, the mass measures (8.5x 7.7 x 7.8 cm)



Figure 2 (A): Post embolization pelvic angiogram; with successful Right uterine artery embolization, and no complications were noted during or immediately post procedure.



Figure 2 (B): Post embolization pelvic angiogram; with successful left uterine artery embolization, and no complications were noted during or immediately post procedure.



Figure 3: The uterus is anteverted with average size measuring 10 x 3.4 x 4.2 cm, demonstrating homogenous echo pattern, no focal lesion. The endometrial lining is within average measures 0.7cm.

Discussion

Placenta accreta is a histopathologic term that defines abnormal placentation by trophoblastic invasion of the myometrium in the absence of intervening decidua. Its incidence has risen in parallel with that of cesarean deliveries [3]. Ideally, the diagnosis might be evaluated antenatally in high-risk pregnancies to allow for pre delivery planning to reduce maternal morbidity and mortality.

Prenatal diagnosis of PA usually is made by imaging studies. However, many studies showed that accreta especially in first trimester are missed at time of presentation and, unfortunately, diagnosed either during the abortive curettage or in the post abortive weeks due to profuse or massive bleeding [13].

The possible explanations for the low detection rate of placenta accreta in the first trimester compared with its diagnosis in the second or third trimester include: 1) The first sonographic scan during pregnancy is usually a short examination, and 2) Awareness of early pregnancy sonographic signs of PA is low, 3) less likely, due to challenges in visualizing the placenta at 10 weeks or earlier, while, very few authors have reported on feasibility of detected abnormal placentation as early as the 5th or 6th gestational week [14].

In the collective authors' experience, although prenatal imaging may be useful, on Ultrasound (US) some features indicative of a placenta accreta include thinning or nonvisualization of the myometrium overlying the placenta, loss of retroplacental clear space, interruption of the interface between the bladder and myometrium, and hypervascularization of the placental-myometrial interface may not always be appreciated. In one review, only 44% of cases were suspected on the basis of antenatal ultrasound [15].

As a result, many recent studies have focus on identifying US features associated with early accreta. The most frequent reported features are non-visible Cesarean section scar, bladder wall interruption, thin retroplacental myometrium, presence of intraplacental lacunar spaces, presence of retroplacental arterial-trophoblastic blood flow, and irregular placental vascularization [16].

D'Antonio et al., conducted a meta-analysis study evaluated first trimester ultrasonography findings in pregnancies where in PA was confirmed histopathologically, aiming to identify early features associated with accreta, the review concluded that , the most common features associated with first trimester accreta was low gestational sac implantation (82%) [17]. This finding by D'Antonio et al., have been supported by more recent prospective study showed that, in addition to lower uterine gestational sac implantation, the intra placenta lacunae is another common earlier and accurate US finding associated with accreta [18].

Role of imaging 'especially' MRI in prediction of first trimester PA beyond what achieved with US was evaluated. The sensitivity and specificity between MRI vs US have been conducted through a systematic review and the result was comparable [19]. Accordingly, US remains the main stander of care, however, complementary MRI have an advantage on evaluating cases with posterior implantation of placenta and in assessing the lateral extension and the depth of invasion in cases suspected with PA, because this modality may provide clearer results than ultrasonography in the identification of the placenta in the first trimester when the myometrium is thick [19].

Management of placenta accreta after a first-trimester abortion is quite challenging and controversial.

Generally, the main management options reported in the literature are historical caesarean hysterectomy and hysterotomy [20,21]. Using the Uterine Artery Embolization (UAE), and cytotoxic Methotrexate therapy (MTX) have been introduced recently as conservative measures for treatment of postabortal and postpartum abnormal placentation with more and more successful result in preserving uterus [12].

Embolization of the uterine arteries, is an effective intervention to achieve immediate hemostasis, minimizing surgical maneuvers, and preserving reproductive capacity in over 90% of cases; however, re-vascularization of the retained placental tissue may cause persistent or secondary hemorrhage, resulting in treatment failure, and eventual hysterectomy [11].

Upon review of the literature, the management options & outcomes of cases complicated with PA in the first-trimester gestation are limited, as only 20 articles including 24 cases have been reported. Information on clinical management and outcomes of all found published studies are listed in (Table 1) [7,10,20-37].

Table 1: Literature review of clinical outcome for patients with placenta accreta after a first-trimester abortion

Study	Parity	Gestation Age (weeks)	Risk factor for abnormal placentation	Indication for evacuation	Abortion procedure	Interval from abortion to vaginal/ Profuse bleeding onset	Confirmation of diagnosis	Outcomes
Harden MA et al., 1990	G3P3	12	Prior caesarean Section (3)	Missed abortion	Suction D&C	Intraoperative	Histopathology PI	Hysterectomy
Ecker JL et al., 1993	G6P2	9	Surgical evacuation of retained placenta	Elective abortion for unplanned pregnancy	Suction D&C	Intraoperative	Histopathology PI	Hysterectomy
Gherman RB et al.,1999	G4P2	5	(1) Prior caesarean section	Missed abortion	Suction D&C	Immediately	Histopathology PI	Hysterectomy
Walter AJ et al., 1999	G2P1	11	(1) Prior caesarean section	Missed abortion	Suction curettage	17 weeks	US,MRI, histopathology PI	Hysterectomy
Chanrachakul B et al., 2001	G2P1	7	(1) Prior caesarean section	Missed abortion	Suction D&C	Intraoperative	Histopathology PI	Hysterectomy
Liu X et al., 2003	[2] G2P1 (1) G5P1 (1) G6P1 (1)	8	Previous C/S previous suction D&C	Missed abortion	Suction D&C	Intraoperative	Angiography[3] Angiography, Histopathology PI	UAE [3] UAE, hysterectomy adenomyosis
Ju W et al.,2007	G6P2	5	(2) Prior caesarean section	Vaginal Bleeding and R LQ Pain	Dilatation and curettage	2 weeks	MRI, histopathology PI	Hysterectomy
Son G et al., 2007	G5P2	-----	Previous suction D&C	Vaginal bleeding	Suction D&C	8 weeks	CT, Histopathology	Hysterectomy
Brahma PK et al., 2007	G6P1 (1)	8	Previous C/S D&C	Persistent VB & complex mass in the anterior LUS	Suction D&C	16 weeks	US , MRI, CT, Histopathology PP	D&C hysterectomy

Tanyi JL et al., 2008	G6P3 (1)	7	Previous C/S D&C	Heavy vaginal bleeding	Suction D&C	Immediately	U S Histopathology PP	Diagnostic laparoscopy converted to laparotomy with hysterectomy
Papadakis JC et al., 2008	G5P3AA1 (2)	11	Previous C/S D&C	Profuse hemorrhage	Suction D&C	Immediately	Histopathology PP	Hysterectomy
Soleymani Majd et al., 2009	G3P3	11	Multiparity	Elective abortion for unplanned pregnancy	Not described	7 weeks	Ultrasound, MRI	Uterine artery embolization
Takeda A et al., 2010	G3P1	8	(1)Prior cesarean section	Missed abortion	Suction D&C	8 weeks	US, MRI, CT angiography, hysteroscopy	TACE dactinomycin
Wang YL et al., 2011	G3P2 (2)	12	Previous cesarean section	Profuse hemorrhage; unusual uterine mass post D&C	Suction D&C	Intraoperative; 8 weeks	US hysteroscopy, laparoscopy, histopathology	Laparoscopic hysterotomy & removed placental tissue
Lim S et al., 2013	G4P2 (1)	5	Previous C/S; D&C	Irregular Bleeding and uterine mass	Suction D&C	2 years	U S Histopathology PA	D&C hysterectomy vaginal bleeding and shock
Genc M et al., 2014	G3P2 (2)	----	Previous cesarean section	Persistent vaginal bleeding for 2 months	Suction D&C	Immediately	US , MRI, Histopathology PP	Hysterectomy bladder rupture
Hamid HA Et al., 2015	G8P2AA1 (2)	9	Previous C/S suction D&C	Profuse vaginal bleeding	Suction D&C	Immediately	Histopathology PP	Hysterectomy
Bansal CL Et al., 2015	G2P1 (1)	7	Previous C/S	Persistent VB	Suction D&C	1 week	US , MRI, Histopathology PP	Subtotal hysterectomy
Liao CY et al., 2016	G7P3AA4 (3)	11	Previous cesarean section; previous suction D&C	VB during D&C	-Suction D&C	-Intraoperative	US , MRI, Histopathology PA	TAE, after 4 months hysterectomy Bladder injury
	G8P2AA5 (2)	10		-VB & missed abortion	-LAVH paroscopic-assisted vaginal hysterectomy	-Intraoperative	US , MRI, Histopathology PA	Uterine rupture with bladder Injury at operation
Shah J et al., 2017	G4P3003 (3)	7	Previous C/S	Missed abortion-failed medical management	D&C	Intraoperative	Ultrasound Histopathology PP	Hysterectomy

Most patients had a history of a prior cesarean delivery leaving possible scar tissue in the anterior uterine wall. Of the 24 patients, 16 cases required a hysterectomy while eight had conservative management and retained their uterus. Of these 8 patients, 7 underwent (UAE). Out of successful 6 cases of embolization, one patient underwent an emergent hysterectomy 4 months post embolization due to recurrent vaginal bleeding and pathologic analysis revealed placenta increta. Besides, one patient of the conservative group treated successfully with laparoscopic hysterotomy and placental tissue removal for complex lower

uterine mass on US after first-trimester abortion. The histopathology consistent with PA.

Comparison with previous studies, neither of these eight cases of PA diagnosed after a first-trimester abortion that have treated conservatively been reported to receive MTX therapy. In the literature we found only one case which is relatively similar to ours. Takeda et al. reported a case of placenta increta after first-trimester abortion diagnosed during curettage was treated successfully by using a combination of intra-arterial infusional chemotherapy with subsequent transcatheter arterial embolization (TACE) with dactinomycin [33]. In comparison with their study the single dose of adjuvant methotrexate systemic therapy that we used have been very effective in inducing placental necrosis and expediting a more rapid involution of the placenta. Despite to its effectiveness as an adjuvant treatment, there is number of controversy surrounding the use of methotrexate in the management of postabortal placenta accreta; 1) the methotrexate is limited to stable patients as therapy is only achieving cytotoxic effects when cases has no active bleeding from retained placental tissue, 2) lack of protocol regarding optimal dosing, frequency, or route of administration, 3) another controversy was about utilizing of serum β hCG for follow up as prognostic factor and accurate correlator between decreasing levels with the rate of involution of placental tissue. As our patient managed conservatively no histological examination was performed.

Clinical implications of the study

Our case highlights few clinical points; 1) Awareness of this rare condition will enable to capturing PA cases at early stages and enabling to provide appropriate optimum management pathway. Although, the American College of Obstetricians and Gynecologists (ACOG) recommend one round of medical management for missed abortions and then to consider alternate management options [38]. This patient was allowed to continue with three trials of 800 mcg of misoprostol prior to the option of surgery. However, failed medical management should raises a concern, especially in patients with risk factors for abnormal placentation. An encountering of patient with specific risk and failed medical management for suggestive finding of blighted ovum miscarriage and/or missed abortion, ideally, offering further evaluation with a thorough repeat US and look closer at features suggestive of PA is critical rather than surgical intervention. Fortunately, our patient did not ended up with uterine hysterectomy, however, she did experience unpredicted hemorrhage during suction curette due to misdiagnosed placenta accreta. 2) being PA one of the differential diagnosis of bleeding after first trimesters abortion and ultrasound feature of low-lying gestational sac will triggering further evaluation with formal radiology scanning and placing additional focus on to rule out abnormal placentation. 3) Using an early pregnancy (US) features suggestive of PA will improve detection of this condition earlier. This is particularly important if there is a suspicion for a first trimester low sac implantation. However, this finding should not be confused with cases that can be mimicked by blighted ovum as it eventually passes into the vagina, in such scenario observations over period of time would be wise to determine if the lower uterine gestational sac is mobile or persistently attached to scar tissue indicative the possibility of placenta accreta before attempting surgery as final solution. Similarly, this scenario is encountered with low gestational sac that can be a usual finding of normal placental implantation which resulted in a viable birth after the pregnancy was allowed to continue, as demonstrated by Comstock et al [14]. 4) Moreover, UAE and chemotherapeutic MTX both a strategy has been shown to reduce morbidity

and mortality in carefully selected cases of PA, this combination produces a vasoconstriction of vessels in the placental bed and enhances involution rate of early trimester trophoblast tissues. Furthermore, although this conservative approach appears to be effective at preserving the uterus of our case and retain her future fertility with favorable outcomes, we should acknowledge that this utilized approach may not be considered the standard treatment, but is the best non-surgical available option. Our case depicts that uterine-preserving approaches for the management of first trimester placenta accreta with UAE and adjuvant methotrexate is feasible and would be considered as part of management depending on patients fertility goals, furthermore, it can be used as an alternative conservative treatment protocol if it can be supported by larger randomized controlled trials.

Conclusion

In spite of improvement of prenatal ultrasound techniques, antepartum diagnosis of early placental disorder is still difficult. **MRI has gained practical importance in obstetrics and confirmed its possibilities in diagnosis of accreta.** Early diagnosis of placenta accreta allows providers to thoroughly counsel patients on options and expectations and to coordinate a treatment approach to provide the highest quality of care and improve outcomes.

References

1. Balayla J, Bondarenko HD. Placenta accreta and the risk of adverse maternal and neonatal outcomes. *J Perinat Med.* 2013; 41: 141-149.
2. Silver BM. Abnormal placentation: Placenta previa, vasa previa and placenta accreta. *Obstet Gynecol.* 2015; 126: 654-668.
3. Jauniaux E, Jurkovic D. Placenta accreta: Pathogenesis of a 20th century iatrogenic uterine disease. *Placenta.* 2012; 33: 244-251.
4. Burton GJ, Jauniaux E, Charnock-Jones DS. The influence of the intrauterine environment on human placental development. *Int J Dev Biol.* 2010; 54: 303-312.
5. Benirschke K, Burton GJ, Baergen RN. *Pathology of the human placenta*, 6th edition, Springer-Verlag, Berlin. 2012.
6. Oyelese Y, Smulian JC. Placenta previa, placenta accreta, and vasa previa. *Obstetrics and Gynecology.* 2006; 107: 927-941.
7. Hamid HA, Zulida R, Norhafizah M. Massive haemorrhage secondary to placenta percreta in the first trimester: a case report. *Clin Exp Obstet Gynecol.* 2015; 42: 101e3.
8. Meng X, Xie L, Song W. Comparing the diagnostic value of ultrasound and magnetic resonance imaging for placenta accreta: A systematic review and metaanalysis. *Ultrasound Med Biol.* 2013; 39: 1958-1965.
9. Wong HS, Cheung YK, Zuccollo J, Tait J, Pringle KC. Evaluation of sonographic diagnostic criteria for placenta accreta. *J Clin Ultrasound.* 2008; 36: 551-559.
10. Liao CY, Huang HW, Tsui WH. Unusual imaging findings of placenta accreta resulting in early hysterectomy in first trimester: two cases reports. *Taiwan J Obstet Gynecol.* 2016; 55: 910e2.
11. Tseng SH, Lin CH, Hwang JI, Chen WC, Ho ES, Chou MM, et al. Experience with conservative strategy of uterine artery embolization in the treatment of placenta percreta in the first trimester of pregnancy. *Taiwan J Obstet Gynecol.* 2006; 45: 150e4.
12. Heiskanen N, Kroger J, Kainulainen S, Heinonen S. Placenta percreta: methotrexate treatment and MRI findings. *Am J Perinatol.* 2008; 25: 91e2.

13. Kim K, Pietrzak A, Gonzalez S, Podgony K. Severe hemorrhage in a first-trimester cesarean scar pregnancy during dilation and curettage. *Int J Obstet Anesth.* 2010; 19: 348-349.
14. Comstock CH, Lee W, Vettraino IM, Bronsteen RA. The early sonographic appearance of placenta accreta. *J Ultrasound Med.* 2003; 22: 19-26.
15. Sentilhes L, Ambroselli C, Kayem G. Maternal outcome after conservative treatment of placenta accreta. *Obstetrics and Gynecology.* 2010; 115: 526-534, 2010.
16. Jauniaux E, Bhide A. Prenatal ultrasound diagnosis and outcome of placenta previa accreta after caesarean delivery: A systematic review and meta-analysis. *Am J Obstet Gynecol.* 2017; 217: 27-36.
17. D'Antonio F, Timor-Trisch IE, Palacio-Jaraquemada J, Monteaugudo A, Buca D, Forlani F, et al. First-trimester detection of abnormally invasive placenta in high-risk women: systemic review and meta-analysis. *Ultrasound Obstet Gynecol.* 2018; 51: 176e83.
18. Panaiotova J, Tokunaka M, Krajewska K, Zosmer N and Nicolaidis K.H. Screening for morbidly adherent placenta in early pregnancy. *Ultrasound Obstet Gynecol* 2019; 53: 101-106.
19. D'Antonio F, Iacovella C, Palacios-Jaraquemada J, Bruno CH, Manzoli L, Bhide A, et al. Prenatal identification of invasive placentation using magnetic resonance imaging: systematic review and meta-analysis. *Ultrasound Obstet Gynecol.* 2014; 44:8-16.
20. Papadakis JC, Christodoulou N, Papageorgiou A, Rasidaki M. Placenta percreta presenting in the first trimester and resulting in severe consumption coagulopathy and hysterectomy: A case report. *Clin Exp Obstet Gynecol.* 2008; 35: 225e6.
21. Wang YL, Su TH, Huang WC, Weng SS. Laparoscopic management of placenta increta after late first-trimester dilation and evacuation manifesting as an unusual uterine mass. *J Minim Invasive Gynecol.* 2011; 18: 250e3.
22. Harden MA, Walters MD, Valente PT. Postabortal hemorrhage due to placenta increta: a case report. *Obstet Gynecol.* 1990; 75: 523e6.
23. Ecker JL, Sorem KA, Soodak L, Roberts DJ, Safon LE, OSathanondh R. Placenta increta complicating a first-trimester abortion. A case report. *J Reprod Med.* 1992; 37: 893e5.
24. Gherman RB, McBrayer S, Tichenor J, Wing DA. Placenta increta complicating first-trimester D&C. *Obstet Gynecol.* 1999; 93: 845.
25. Walter AJ, McCullough AE, Patel MD, Cornella JL. Placenta increta presenting as delayed postabortal hemorrhage. *Obstet Gynecol.* 1999; 93: 846.
26. Chanrachakul B, Hamontri S, Leopairut J, Herabutya Y. Placenta increta complicating the first trimester abortion. *Acta Obstet Gynecol Scand.* 2001; 80: 467e8.
27. Liu X, Fan G, Jin Z, Yang N, Jiang Y, Gai M, et al. Lower uterine segment pregnancy with placenta increta complicating first trimester induced abortion: diagnosis and conservative management. *Chin Med J.* 2003; 116: 695e8.
28. Ju W, Kim SC. Placenta increta after first-trimester dilatation and curettage manifesting as an unusual uterine mass: magnetic resonance findings. *Acta Radiol.* 2007; 48: 938e40.
29. Son G, Kwon J, Cho H, Kim S, Yoon B, Nam E, et al. A case of placenta increta presenting as delayed postabortal intraperitoneal bleeding in the first trimester. *J Korean Med Sci.* 2007; 22: 932e5.
30. Brahma PK, Lieberman R, Przybycin C, Liu JR. Placenta percreta following first trimester miscarriage. *Int J Gynaecol Obstet.* 2007; 99: 140e1.
31. Tanyi JL, Coleman NM, Johnston ND, Ayensu-Coker L, Rajkovic A. Placenta percreta at 7th week of pregnancy in a woman with previous caesarean section. *J Obstet Gynaecol.* 2008; 28: 338e40.
32. Soleymani Majd H, Sirkantha M, Majumdar S, B-Lynch C, Choji K, Canthaboo M, et al. Successful use of uterine artery embolization to treat placenta increta in the first trimester. *Arch Gynecol Obstet.* 2009; 279: 713e5.

33. Takeda A, Koyama K, Imoto S, Mori M, Nakano T, Nakamura H. Conservative management of placenta increta after first trimester abortion by transcatheter arterial chemoembolization: a case report and review of the literature. *Arch Gynecol Obstet.* 2010; 281: 381e6.
34. Lim S, Ha SY, Lee KB, Lee JS. Retained placenta accreta after a first-trimester abortion manifesting as an uterine mass. *Obstet Gynecol Sci.* 2013: 205e7.
35. Genc M, Genc B, Solak A, Sivrikoz ON. Placenta percreta resulting in incomplete spontaneous abortion in first trimester. *Int J Fertil Steril.* 2014; 8:347e50.
36. Bansal CL, Gupta J, Asthana D, Kayal A. Placenta percreta in first trimester leading to disseminated intravascular coagulopathy (DIC): a rare case report. *J Clin Diagn Res.* 2015; 9: QD03e4.
37. Shah J, Matta E, Acosta F, Golardi N, and Wallace-Huff C. Placenta Percreta in First Trimester after Multiple Rounds of Failed Medical Management for a Missed Abortion. *Case Reports in Obstetrics and Gynecology.* 2017.
38. American College of Obstetricians and Gynecologists, "ACOG Practice Bulletin No. 150 Early Pregnancy Loss," *Obstetrics & Gynecology.* 20158; 125: 1258–1267.

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