



Retained Product of Conception

Retained Product of Conception In Placenta Accreta – Case Series

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Abstract: **Background:** Retained Product of Conception (RPOC) with placenta accreta is one of morbidity causes due to delay in diagnosis. **Objective :** To diagnose RPOC with placenta accreta. **Material and Method :** Medical records of six RPOC patients with placenta accreta from January 2017 to February 2021 in dr. Soetomo Hospital Surabaya were included in this retrospective observational study. **Results :** Six cases RPOC with placenta accreta showed that the most common complaint was vaginal bleeding with risk factor of previous cesarean delivery. The ultrasound findings in all cases were hyperechoic masses with intraplacental hypervascularity, subplacental hypervascularity and inseparable cotyledon. Post-partum haemorrhage (PPH) with history of previous cesarean section and ultrasonographic examination findings intrauterine mass, intraplacental hypervascularity, subplacental hypervascularity, inseparable cotyledons can be diagnosed as RPOC with placenta accreta contains.

Keywords : Retained product of conception, placenta accreta, post-partum haemorrhage

I. INTRODUCTION

One of the cause of maternal mortality is due to delayed PPH. RPOC is postpartum tissue left inside the uterus, which can cause delayed PPH at 24 hours to 6 weeks after delivery. Diagnosis of RPOC was made by ultrasound in addition to the pattern of clinical bleeding^[1]. We present six cases of RPOC with placenta accreta managed at dr. Soetomo Surabaya Hospital.

II. METHODS

Retrospective observational study performed between January 2017 until February 2021 at a tertiary referral hospital, by detailed assessment of obstetric history and physical examination of postpartum bleeding and lower abdominal pain. Our findings were supported by Doppler ultrasonography observation of hyperechoic mass with intraplacental and/or subplacental hypervascularity and inseparable cotyledon as diagnostic criteria and confirmed during surgery performed by Maternal-Fetal Medicine staff.

III. CASE REPORTS

Case 1

A 26 years old woman (Para 1, Abortus 1) was referred with vaginal bleeding. Diagnosis of RPOC with placenta accreta was made after ultrasound examination (Figure 1,2,3). The patient was discharged after the third postoperative day.

Case 2

A 30 year old woman (Para 1, Abortus 1) was referred with suspicion of RPOC with placenta accreta. The patient already underwent curettage because of nonembryonic pregnancy.

The patient final assessment was RPOC with placenta accreta (Figure 4). The patient was discharged after the fifth day post surgery.

Case 3

A 32 years old woman (Para1, Abortus 1) was referred with anembryonic pregnancy. After re-evaluation, patient was diagnosed with RPOC with placenta accreta. After methotrexat administration, β -hCG level was less than two.

Case 4

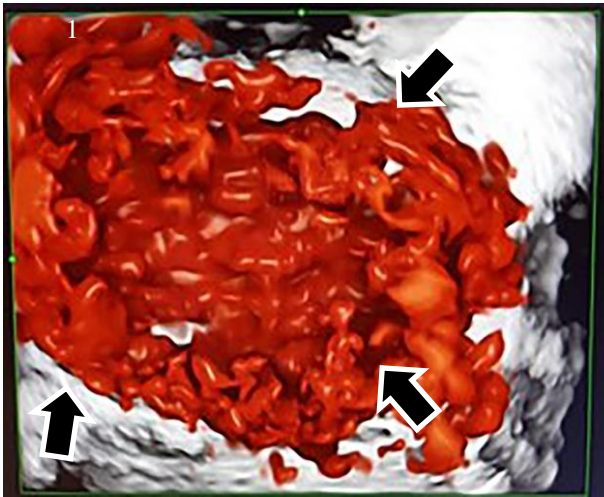
A 27 years old woman (Para 3) was referred with complain vaginal bleeding at 24 hours post-partum. The remaining placenta still attached despite manual removal, then curettage was performed. The patient recent assessment was RPOC with placenta accreta (Figure 6a, 6b) and discharged from the hospital after the third postoperative day.

Case 5

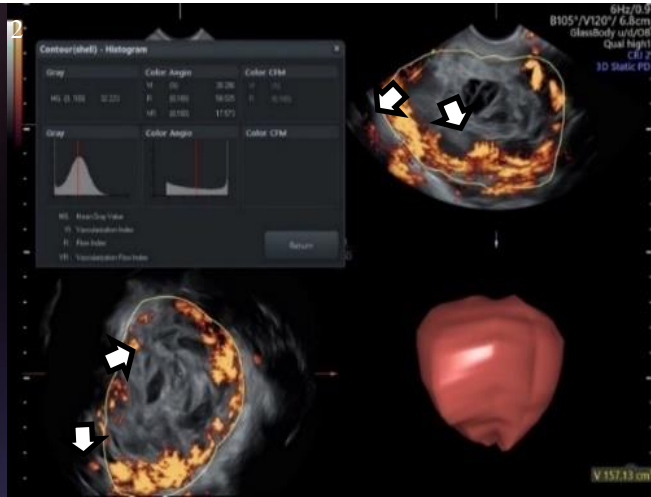
A 24 year old woman (Para 1, Abortus 1) was referred with RPOC with placenta accreta (Figure 5), discharged in three days after surgery.

Case 6

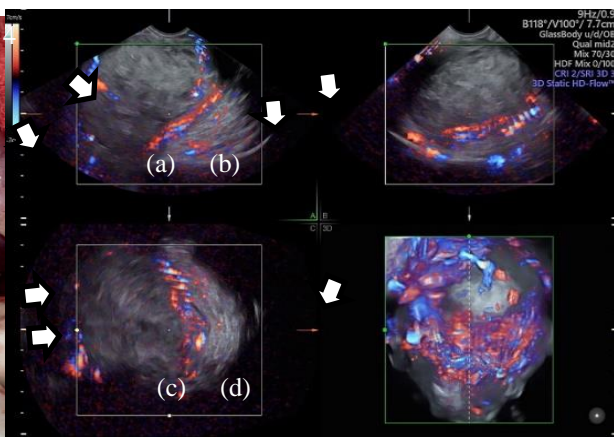
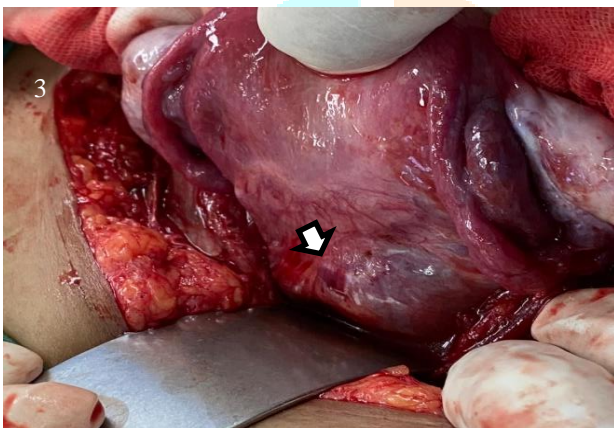
A 35 years old woman (Para 2, Abortus 1) was referred with vaginal bleeding after cesarean section for two months. The patient was diagnosed RPOC with placenta accreta and discharged after the third postoperative day.



(Figure 1) Inseparable cotyledons



(Figure 2) Intrauterine mass with subplacental hypervascularity and vascularity index 30,28%



(Figure 3) Anterior bulging of LUS confirmed as placenta increta by histopathology (Figure 4) (a,b,c) Intrauterine mass with subplacental and (d) intraplacental hypervascularity

Table 1. Comparison of risk factors, clinical complaints and examination results of RPOC in placenta accreta cases in dr. Soetomo January 2017-February 2021

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Note n/total
Risk Factors							
C-section	(+)	(+)	(+)	(-)	(+)	(+)	5/6 (83,33%)
Manual removal of placenta	(-)	(-)	(-)	(+)	(+)	(-)	2/6 (33,34%)
D&C	(-)	(+)	(-)	(-)	(-)	(-)	1/6 (16,67%)
Age > 35 y.o.	(-)	(-)	(-)	(-)	(-)	(+)	1/6 (16,67%)
Trimester	1	1	1	3	2	3	1 st Trimester → 3/6 (50%) 2 nd Trimester → 1/6 (16,6%) 3 rd Trimester → 2/6 (33,33%)
Clinical symptoms							
Time of occurrence since post partum	4 days	18 days	7 days	1 days	2 days	18 days	≤ 7 days → 4/6 (66,67%) 18 days → 2/6 (33,33%)
Vaginal bleeding	(+)	(+)	(-)	(+)	(+)	(+)	5/6 (83,33%)
Fever	(+)	(-)	(-)	(-)	(+)	(+)	3/6 (50%)
Lower abdominal tenderness	(+)	(-)	(-)	(-)	(+)	(-)	2/6 (33,33%)
US result							
Intracavitary uterine mass	(+)	(+)	(+)	(+)	(+)	(+)	6/6 (100%)
Intraplacental hypervascularity	(+)	(+)	(+)	(+)	(+)	(+)	6/6 (100%)
Subplacental hypervascularity	(+)	(+)	(+)	(+)	(+)	(+)	6/6 (100%)
Inseparable cotyledon	(+)	(+)	(+)	(+)	(+)	(+)	6/6 (100%)
Placenta implantation at cesarean scar	(+)	(+)	(+)	(-)	(+)	(+)	5/6 (83,33%)
Vascularity index	30,28	5,035	No data	39,26	26,11	2,3	
Additional test							
B-HCG	2.433,8 → 1.550,2	1.192,64	2.566,1 → 1.613,7 → 93,88 → 5,24 → <2	2.041,5	4.546 → 7.049,9 → 0,99	1,5	Reduced at 4/6 (66,67%)
Pathology result	Placenta increta (FIGO gr II)	RPOC	No surgery	Placenta increta placenta accreta (FIGO gr I)	RPOC	RPOC	Placenta accrete → 1/6 (1,67%) Placenta increta → 1/6 (16,67%) Retained products of conception → 4/6 (66,67%)
Other							
Durante surgery	Anterior Bulging of LUS → Increta (FIGO grade II)	Bulging dan bluish appearance at anterior LUS	No surgery	Placenta increta invasion at fundus and cornu sinistra	Parametrium hypervascularization	Bulging anterior LUS and ileum adhesion	Anterior bulging → 3/6 Fundal invasion → 1/6 (16,7%) Parametrium hypervascularization → 1/6 (16,7%)



(Figure 5). Inseparable cotyledons (Figure 6) a. Intrauterine mass, Intraplacental and subplacental hypervascularity. b. Inseparable cotyledons

IV. DISCUSSION

Placenta accreta can increase the risk of RPOC^[2]. Symptoms of RPOC are post-partum haemorrhage, abdominal pain, and fever. Haemorrhage occurs later than 14 days and even up to six weeks^[3]. Necrotic RPOCs are susceptible to infection by cervicovaginal flora, clinical manifestations of endometritis (fever, abnormal uterine bleeding, lower abdominal pain and tenderness) could also appear and lasts for days^[3]. From all of our patients that diagnosing RPOC with placenta accreta, including:

1. History of delivery: cesarean delivery^[4], manual removal of placenta^[2,4] and curettage^[4].
2. Age > 35 years^[5].
3. Incomplete abortion in the first trimester^[6].
4. Post-partum symptoms in the form of vaginal bleeding, fever and/ or lower abdominal pain^[3].
5. On ultrasound examination, intra-uterine mass with intraplacental and/or subplacental hypervascularity, inseparable cotyledon and/or placenta implantation in the cesarean scar^[7].
6. Vascular index > 21%^[8].
7. Decreased β -hCG^[9].

Histopathology is recommended to be performed, but often difficult to conclude in conservative cases because uterus is not included in the tissue specimens^[10].

V. CONCLUSION

Detailed and thorough diagnostic examination using USG Colour Doppler is mandatory for all causes of PPH for proper management to prevent further morbidity and mortality.

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