Plasenta akreta – Another Wolf At The Door

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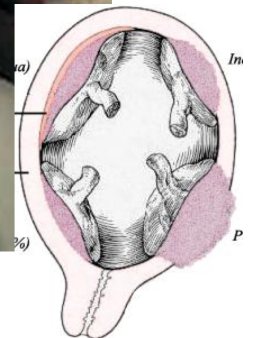
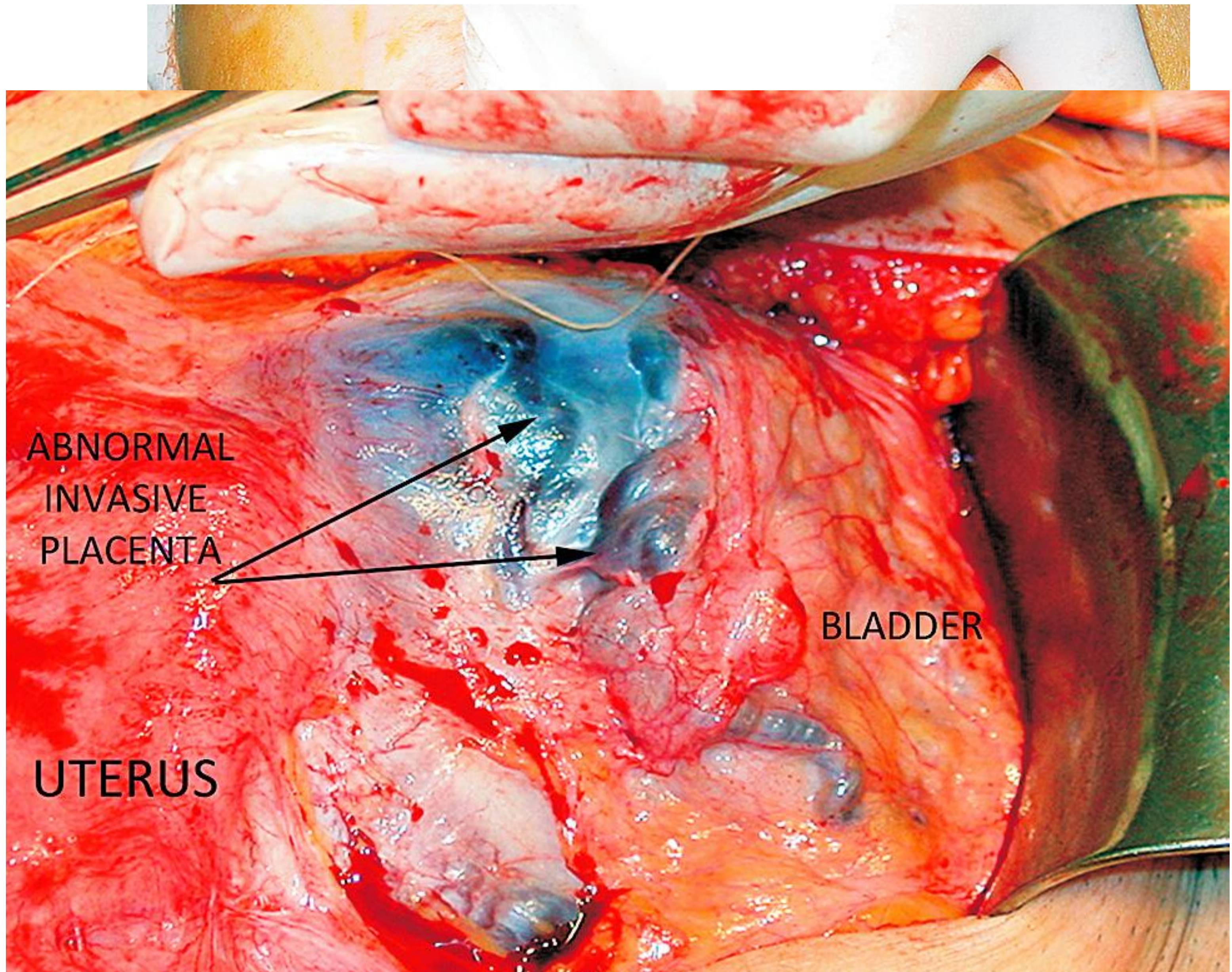


J. M. Palacios-Jaraquemada 2012

Fifty years ago, placenta accreta was an obstetric rarity. Today, however, placenta accreta and its variations represent one of the principal causes of maternal morbidity and mortality. That this is the case is often attributed to the increased number of cesarean deliveries…..


ABNORMAL
INVASIVE
PLACENTA
BLADDER
UTERUS

PASPAD

Terinspirasi u menyusun PDT sesuai kebutuhan lokal termasuk pendalaman berbagai pustaka, pencegahan tk I(kurangi persalinan sesar pertama – tehnik penjahitan?), tk II(?), tk III(usg postpartum, trimester 1 dan 3, rujukan dini, pembentukan tim), tk IV– V

Terminologi

- Akreta 79 % = inkreta 14 % = perkreta 7 %
- Too deeply attached
- Abnormal invasive placenta
- Placental Attachment disorder
- Morbidly adherent placenta
- ICD 10: O43.2

O43.2 Morbidly adherent placenta

Placenta:

- accreta
- increta
- percreta

Use additional code, if desired, to identify any:

- postpartum haemmorrhage, third stage (O72.0)
- retained placenta without hemorrhage (O73.0)

O43.8 Other placental disorders

Placental:

- dysfunction
- infarction

O43.9 Placental disorder, unspecified

Identifikasi

- Risk factor
- Pemeriksaan klinis
- Pemeriksaan usg
- Pemeriksaan MRI

Risk factor

- Plasenta previa after Previous cesarean delivery
- History of uterine surgery (eg, myomectomy entering the uterine cavity, hysteroscopic removal of intrauterine adhesions, cornual resection of ectopic pregnancy, dilatation and curettage, endometrial ablation) & pelvic irradiation)
- Cesarean scar pregnancy,
- Maternal age greater than 35 years
- Infertility and/or infertility procedures

Plasenta Previa n Plas Akreta

- Risk Factor + plasenta previa
  - No previous cesarean birth, 1 to 5 percent
  - One previous cesarean birth, 11 to 25 percent
  - Two previous cesarean births, 35 to 47 percent
  - Three previous cesarean births, 40 percent
  - Four or more previous cesarean births, 50 to 67 percent

- Tanpa plas previa
  - One previous cesarean birth, 0.3 percent
  - Two previous cesarean births, 0.6 percent
  - Three previous cesarean births, 2.4 percent

Besarnya masalah Resnik 2016

- massive obstetric hemorrhage leading to DIC
- the most common indication for peripartum hysterectomy
- surgical injury to the ureter, bladder, bowel or neurovascular structures
- adult respiratory distress syndrome
- acute transfusion reaction
- electrolyte imbalance
- renal failure
- Infection
- Maternal mortality: 7 %

Perdarahan pada MAP

- The average blood loss: is 3000–5000 cc
- 90 % require blood transfusion and 40 % require more than 10 units of packed red blood cells

Identifikasi

- Anamnesis faktor risiko
- Pemeriksaan ultrasonografi trimester 1
- Pemeriksaan ultrasonografi trimester 3
- Pemeriksaan usg 3 D, MRI dan lab

Pemeriksaan usg trimester 1

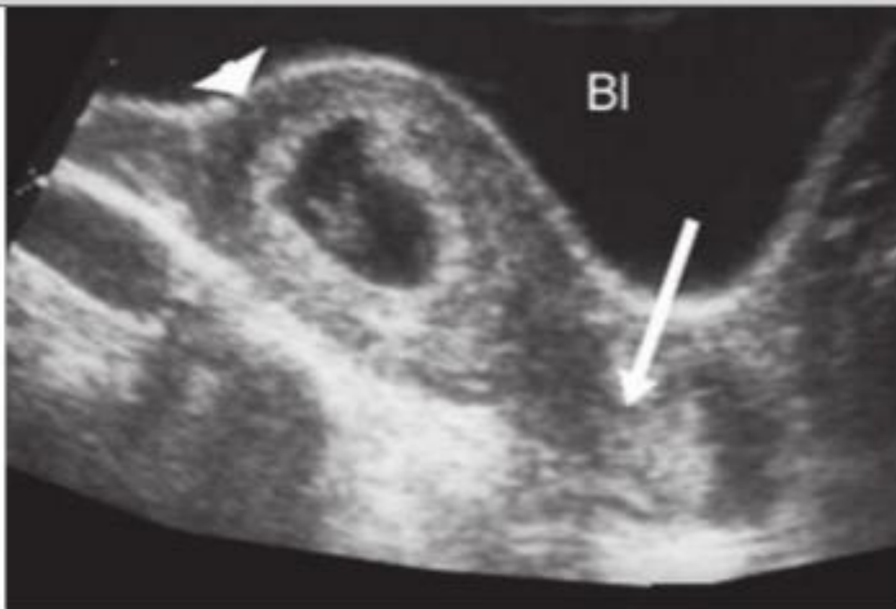
- the accuracy of first trimester diagnosis is unclear
- gestational sac located in the lower uterine segment (rather than the fundus), next to or lower than the hysterotomy scar or a cesarean scar pregnancy.
- Meta analysis: sensitivity was 90.7 percent (95% CI 87.2–93.6), specificity 96.9 percent (95% CI 96.3–97.5), positive likelihood ratio 11 (95% CI 6–20), and negative likelihood ratio 0.16 (95% CI 0.11–0.23)
- The gestational sac lying in the ALUS(Anterior Lower Uterine Segment)

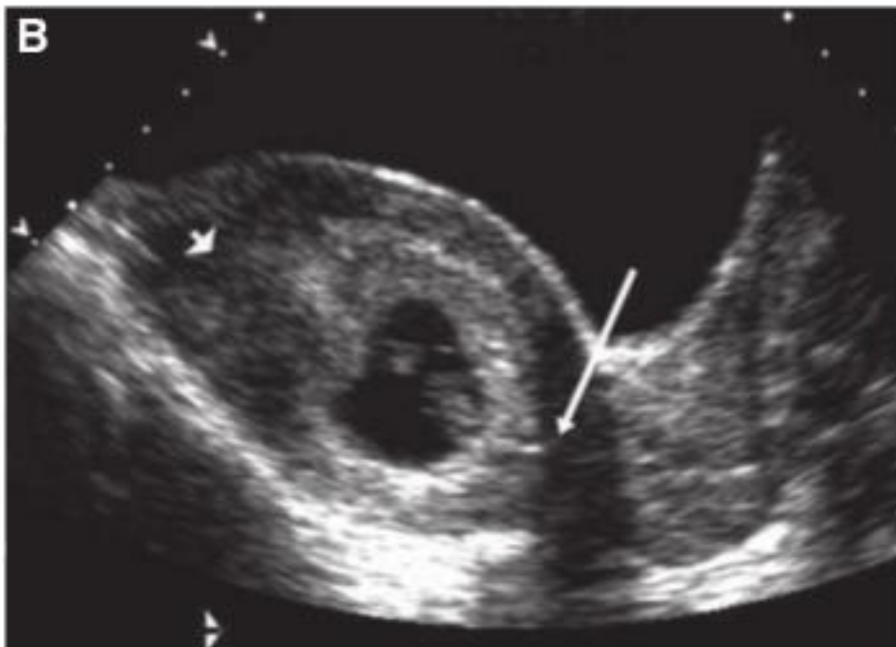
Usg trimester 1 vs 2-3(Rahimi 2014)

Table II. Sensitivity and specificity of ultrasound for placenta accrete diagnosis according to different pregnancy trimester

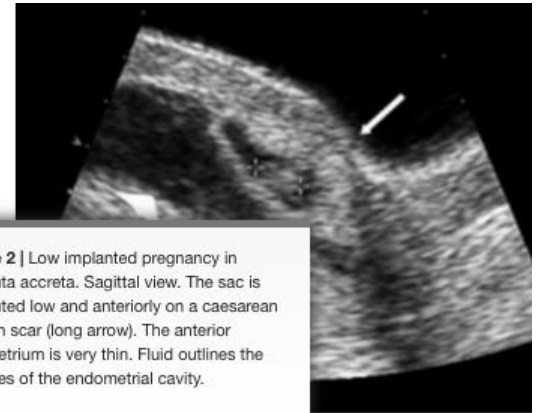
Ultrasonography	**Sensitivity (CI* 95%)**	**Specificity (CI 95%)**	**Positive predictive value (CI 95%)**	**Negative predictive value (CI 95%)**
First trimester	41% (16.2-62.7)	88% (88.2-94.6)	16% (8.2-38.5)	96% (93.4 -98.1)
Second trimester	60% (32.3-83.7)	83.5%(78.8-87.5)	15.5% (7.35-27.4)	97.6 %(94.9 -99.1)
Third trimester	71.4% (41.9-91.6)	88.5% (84.3-91.9)	22.7% (11.5 -37.8)	98.5% (96.2-99.6)

*Confidence Interval





d percreta can occur in a
orts in which a dilatation
vith subsequent massive
as examined the placenta
rent with lack of decidua



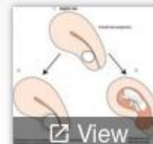
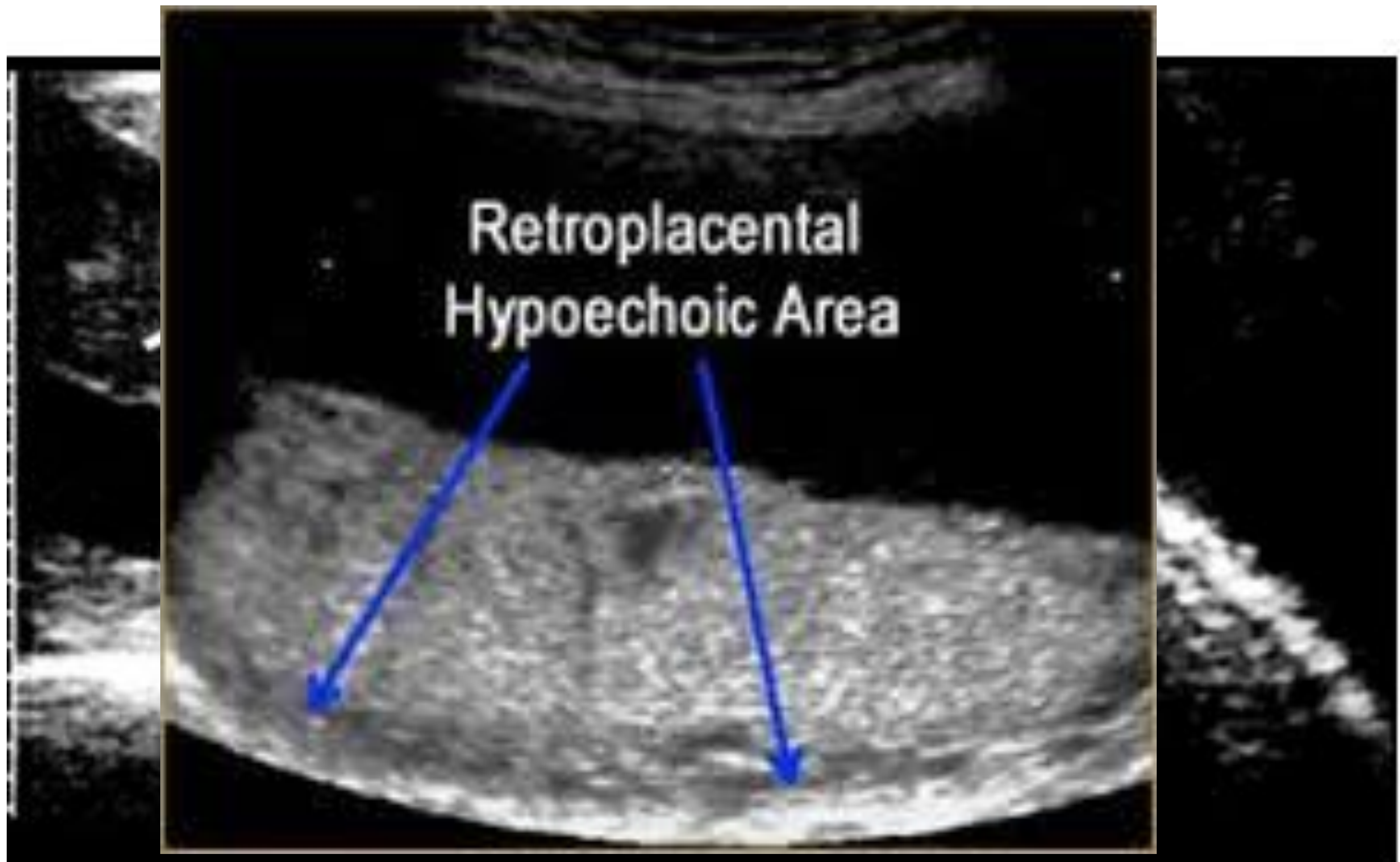


Figure 2 | Low implanted pregnancy in placenta accreta. Sagittal view. The sac is implanted low and anteriorly on a caesarean section scar (long arrow). The anterior myometrium is very thin. Fluid outlines the confines of the endometrial cavity.

Trimester 2

- The characteristic second trimester placenta accreta findings of anechoic placental areas and an irregular placentalmyometrial interface

Loss of clear space – retroplacental sonolucent space



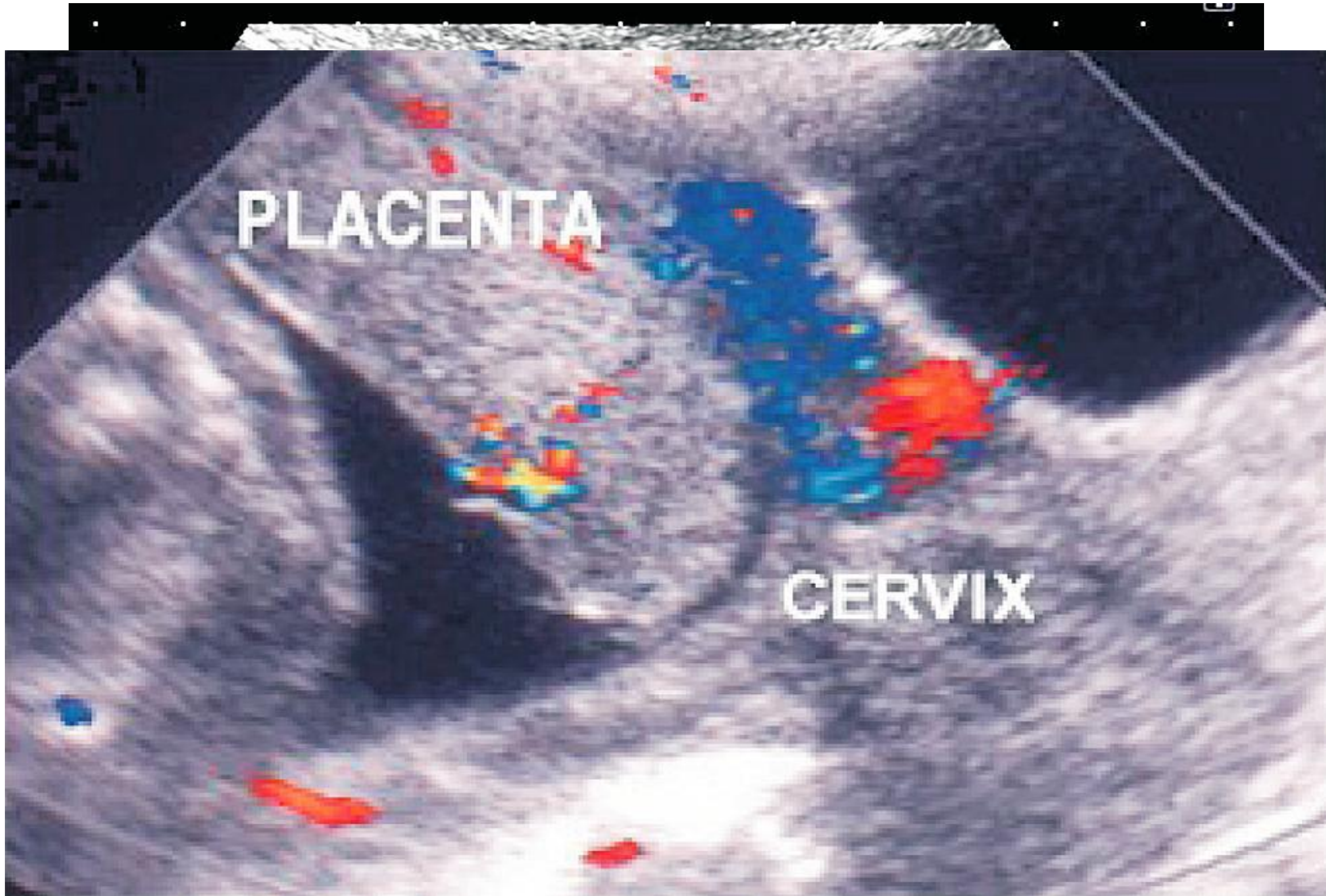
Doppler – harus dikombinasi dg usg

Diffuse or focal intraparenchymal lacunar flow

Vascular lakes with turbulent flow

Hypervascularity of serosabladder interface

Prominent subplacental venous complex


PLACENTA
CERVIX

Finberg's Criteria intraplacental lacunae

Grade zero: the absence of lacuna

Grade 1 : one to three small lacunae

Grade 2 : four to six large, irregular lacunae

Grade 3 : numerous lacuna including some that were large and irregular

Grade 1 lacunae had the best predictive value, with a sensitivity of 86%, a specificity of 78%, PPV of 76% and NPV of 88%. No hysterectomy was performed in women without lacunae

Resnik 2015

- Loss of placental homogeneity, which is replaced by multiple intraplacental sonolucent spaces (venous lakes or placental lacunae) adjacent to the involved myometrium. This is the most consistent ultrasound finding
- Loss or irregularity of the normal hypoechoic area behind the placenta (termed the 'clear space')
- Retroplacental myometrial thinning (thickness of <1 mm).
- Loss or disruption of the normally continuous white line representing the bladder walluterine serosa interface (termed the 'bladder line')
- Bulging of the placenta into the posterior wall of the bladder.
- Exophytic mass breaking through the uterine serosa, usually extending into the bladder.

PAI menurut Rac 2014

Parameter	Nilai
≥ 2 persalinan sesar	3
Lakuna	
Gradasi 3	3,5
Gadasi 2	1
Ketebalan Sagital Miometrium Paling Tipis	
≤ 1 mm	1
>1 ≤ 3 mm	0,5
>3 ≤ 5 mm	0,25
Plasenta Previa Anterior	1
Bridging Vessels	0,5

Interpretasi

Sensitivity, specificity, and positive and negative predictive values at each PAI score

PAI	n	Probability of invasion, % (95% CI)	Sensitivity (95% CI)	Specificity (95% CI)	PPV (95% CI)	NPV (95% CI)
>0	1	5 (1–15)	100 (88–100)	19 (10–31)	38 (27–49)	100 (72–100)
>1	1	10 (4–22)	97 (82–100)	47 (34–61)	47 (34–61)	97 (82–100)
>2	2	19 (10–32)	93 (77–99)	58 (44–70)	52 (38–66)	94 (81–99)
>3	4	33 (22–47)	86 (68–96)	68 (54–79)	57 (41–72)	91 (78–97)
>4	6	51 (36–66)	72 (53–87)	85 (73–93)	70 (51–85)	86 (75–94)
>5	6	69 (50–83)	52 (33–71)	92 (81–97)	75 (51–91)	79 (68–88)
>6	2	83 (63–93)	31 (15–51)	100 (94–100)	100 (66–100)	75 (64–84)
>7	2	91 (73–97)	24 (10–44)	100 (94–100)	100 (59–100)	73 (62–82)
>8	5	96 (81–99)	17 (6–36)	100 (94–100)	100 (48–100)	71 (60–81)

Palacios-Jaraquemada 2012 – klasifikasi baru karena klasifikasi lama ...

Retrospective

Histopathological in nature

Uncertain use in surgical practice

In one specimen, all types and degrees of invasion may coexist

countless cases describe simple surgery for placenta percreta, and extremely difficult surgery with bleeding for localized placenta accreta

Klasifikasi berdasar daerah plasenta bukan dalamnya invasi

type 1: the anterior segment is noticeably thinner and the placenta reaches the serous surface, no newly formed placental–vesical or vesicouterine vessels are identified, and there is a lax dividing plane between the posterior bladder wall and the anterior surface of the uterine segment

type 2: both the lower uterine segment and the posterior wall of the bladder are noticeably thinner, there is no lax plane between both organs and a fibrous scar connects them, and no newly formed placental–vesical or vesicouterine vessels are observed

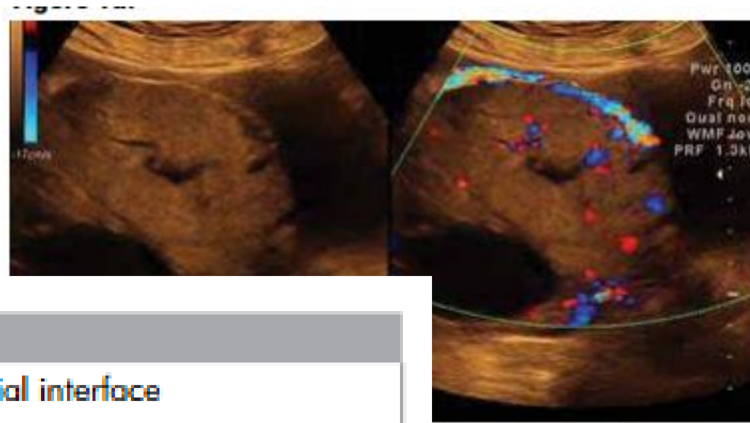
Type 3: is characterized by a thinner uterine segment, vesical wall of variable thickness, presence of placental–vesical and vesicouterine neovascular circulation and vesicouterine plane with or without fibrous adherence

- **The classification based on invaded areas makes it possible to know and plan how and on which vessels to perform vascular control**

Bagaimana dg usg 3 D, 3 D PD, MRI dan laboratorium

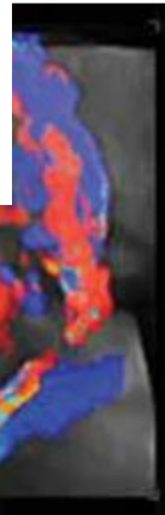
- Baughman: MRI is most clearly indicated when US findings are ambiguous or there is a posterior placenta
- Palacios-Jaraquemada : wajib memakai MRI

Bagaimana kemajuan terakhir? Usg bukan MRI – Jyoti - Robertson



ʻf placental-myometrial interface,
bulging into the bladder.

Method	Feature
2D grey scale	Loss of placental-myometrial interface Placental lacunae Placenta bulging into the bladder
Colour Doppler	Increased amount of blood vessels Turbulent blood flow
3D power Doppler ultrasound	Colour flow mapping of newly formed vessels and lacunae



3D power Doppler: Newly formed blood vessels and lacunae.

Chalubinski 2013 - membedakan akreta – inkreta dan perkreta

Normal placentation: the placental–uterine wall interface was intact in all places
Placenta accreta: placental 'cones' disrupted the decidual zone with mildly increased vascularization around these cones

Placenta increta: the presence of irregular and diffuse demarcation of the placental–uterine wall interface and thinning of the myometrium that was overlying the placental–myometrial tissue. Increased vascularization and irregularly shaped intraplacental vascular lacunae, resembling the characteristic 'moth damage' appearance

Placenta percreta: a complete absence of the myometrium, with the placenta extending to the serosa, or beyond, including vascular breakthrough. Massive subplacental hypervascularization , with vessels extending irregularly into the placental–myometrial tissue and with numerous large intraplacental lacunae

Interobserver variations

- ..... when multiple investigators, who are blinded to clinical data, use sonography for prediction of placenta accreta, diagnoses may only be moderately reliable, with significant interobserver variability. Standardization of sonographic findings may help improve consistency

Tatalaksana

- Elective atau emergency
- Saat terminasi kehamilan
- Lokasi
- Tehnik

Kayem 2012

	Extirpative management (n = 13)	*Conservative management (n = 38)*	*p-Value*
Hysterectomies, *n* (%)	11 (84.6)	10 (26.3)	<0.001
Transfusion	12 (92.3)	25 (65.8)	0.13
Patients (*n* (%))			
Packed red blood cells, ml (mean ± SD)	3230 ± 2170	1081 ± 1357	<0.001
Fresh frozen plasma, ml (mean ± SD)	2238 ± 1415	197 ± 632	<0.001
Disseminated intravascular coagulation	5 (38.5)	1 (2.6)	0.003
Transfer to ICU, *n* (%)	7 (53.8)	11 (28.9)	0.19
Time spent in ICU, days (mean ± SD)	2.42 ± 2.6	2.27 ± 0.9	0.85
Postpartum endometritis, *n* (%)	0	7 (18.4)	0.22

ICU, intensive care unit

One-step conservative surgery for abnormal placentation (OSCS)

First implemented in 1990, 20 years later: 450 patients.

Includes the most diverse types and degrees of placental invasion, operated upon electively as well as in emergency circumstances.

106 consecutive postrepair pregnancies: only two cases of partial recurrence were noted.

The lowest relapse rate reported for conservative treatments in abnormal invasive placenta.

Langkah-langkah

Stage 1: invasion area – memakai f MRI

Stage 2: surgical scheduling – cek kadar fibrinogen

Stage 3: laparotomy and initial evaluation

Stage 4: hysterotomy

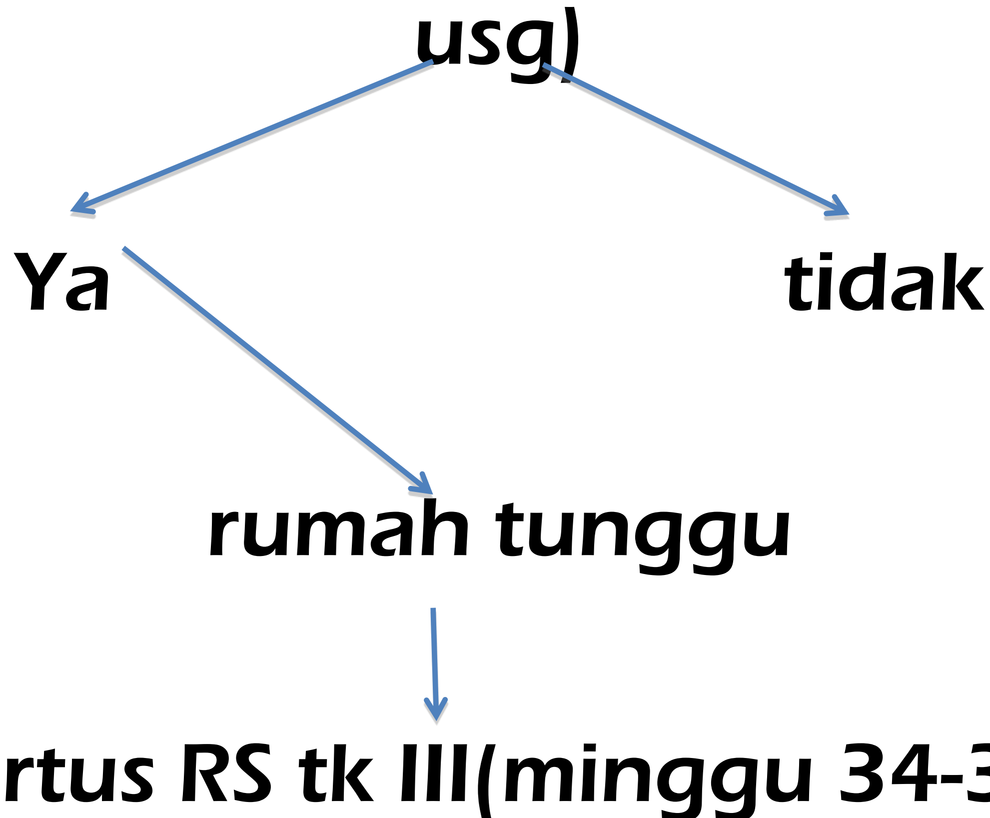
Stage 5: resection and hemostasis

Stage 6: repair

Stage 7: postoperative care

Algoritma

Skrining dan diagnosis(Anamnesis, fisik, usg)



Ya

tidak

rumah tunggu

Partus RS tk III(minggu 34-36)

Pencegahan tingkat 1 dan 2

- Pertajam indikasi persalinan sesar pada primigravida
- Tehnik penjahitan yang optimal untuk penjahitan terutama di SBR – 3 lapis
- Cuci dg PZ 1 liter
- Awasi untuk kehamilan berikutnya – upayakan VBAC u kehamilan ke 2

Pencegahan tingkat 3

- Usg trimester 1
- Usg trimester 2-3
- Bila terdeteksi MAP – rujuk ke RS tingkat 3 untuk konfirmasi
- Bila pasti – siapkan rumah tunggu dan persalinan di RS tingkat 3
- Terminasi maksimal UK 36 minggu
- Persiapan maksimal operasi
- Simulasi tim MAP

Hari H - 1

- MRS paling lambat H-1
- Cek ulang usia kehamilan, posisi dan DJJ
- Pastikan kadar fibrinogen DBN
- Pastikan kadar Hb di atas 10 g %
- Informed consent yang maksimal
- Cek ulang seluruh anggota tim
- Siapkan tim IT u mendokumentasikan seluruh jalannya operasi
- Diskusikan kemungkinan plan A dan B dg seluruh anggota tim

Hari H

- Siapkan darah 4 labu di OK, 4 GSH
- Pasang 2 transfusion set
- Timeout
- Rencana plan A(tinggalkan plasenta) – plan B(histerektomi)
- Insisi kulit: midline periumbilikal
- Insisi uterus: korporil atau fundus
- Potong tali pusat mendekati plasenta

Plan A

- Tinggalkan plasenta – bila perdarahan minimal
- Jahit irisan uterus 3 lapis
- Awasi dengan ketat post op dini dan minggu-minggu berikutnya untuk penyulit perdarahan dan infeksi
- Bila terjadi perdarahan, jalankan plan B
- Cek ulang perdarahan, alat dan kasa
- Jangan lupa laporan operasi, perintah post op, KIE keluarga

Plan B

- Ligasi a Uterina, Ovarika, Hipogastrika dan neovaskuler
- Tergantung kondisi durante operasi
- Bila diperlukan, konsul DO: onkoginekologi, urologi atau digestif
- Cek ulang perdarahan, alat dan kasa
- Jangan lupa laporan operasi, perintah post op, KIE keluarga

- **Bagaimana pengalaman anda?**

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