FAKULTNÍ NEMOCNICE BRNO

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UNIVERSITAS MASARYKIANA BRUNENSIS · FACULTAS MEDICA

Emergency Conditions in Obstetrics and Gynecology

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General Medicine
Obstetrics and Gynecology Seminary
2015 – Autumn semester

Some of acute conditions in obstetrics

- bleeding in pregnancy
- postpartal haemorrhagy
- eclampsia
- fetal hypoxia
- embolism
  - amniotic fluid
  - trombosis
  - air embolism

Bleeding in pregnancy

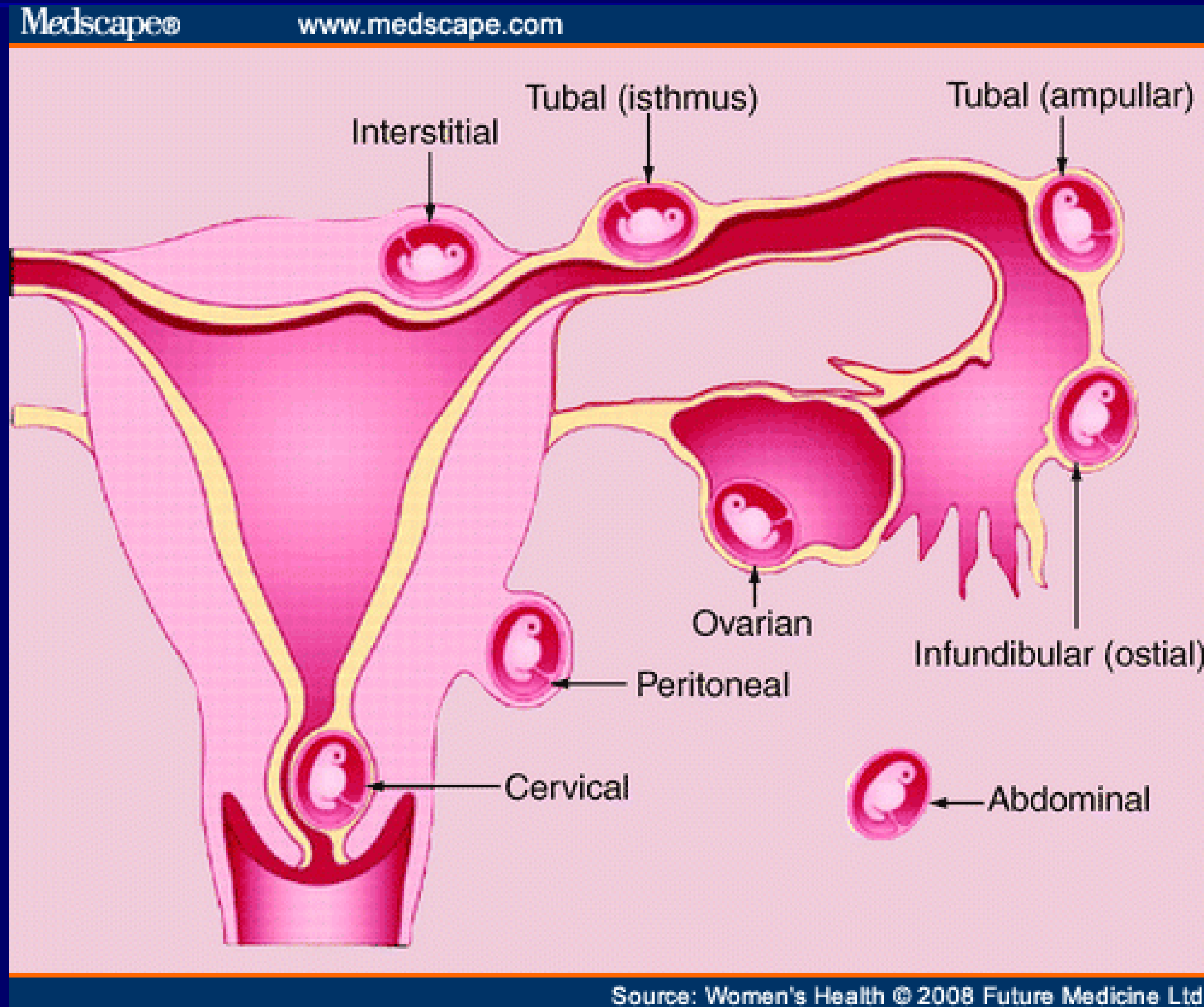
Most important condition in pregnancy

- Ist trimester
  - ectopic pregnancy
  - abortion
- IInd trimester
  - abortion
- IIIrd trimester
  - placenta praevia
  - vasa praevia
  - placental abruption
- Postpartal haemorrhagy

Ectopic pregnancy

- most common cause of maternal death in Ist trimester
- incidence 10-20/1000 pregnancies
- incidence is increased 3 times due to a sexually tranmitted agent

Types of ectopic pregnancy



Risk factors

Table 14.2 Risk factors for ectopic pregnancy

Risk factor	Odds ratio
High risk	
Tubal surgery	21.9
Sterilisation	9.3
Previous ectopic pregnancy	8.3
In utero exposure to diethylstilboestrol	5.6
Use of IUD	4.2–45.0
Documented tubal pathology	3.8–21.0
Moderate risk	
Infertility	2.5–21.0
Previous genital infections	2.5–3.7
Multiple sexual partners	2.1
Slight risk	
Previous pelvic/abdominal surgery	0.9–3.8
Cigarette smoking	2.3–2.5
Vaginal douching	1.1–3.1
Early age at first intercourse (<18 years)	1.6

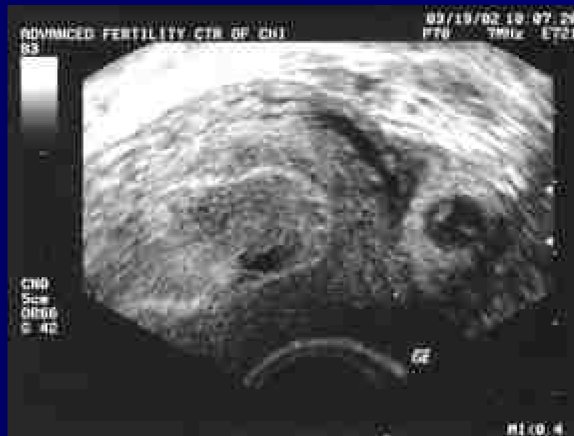
From Pisarska et al 1998, with permission.

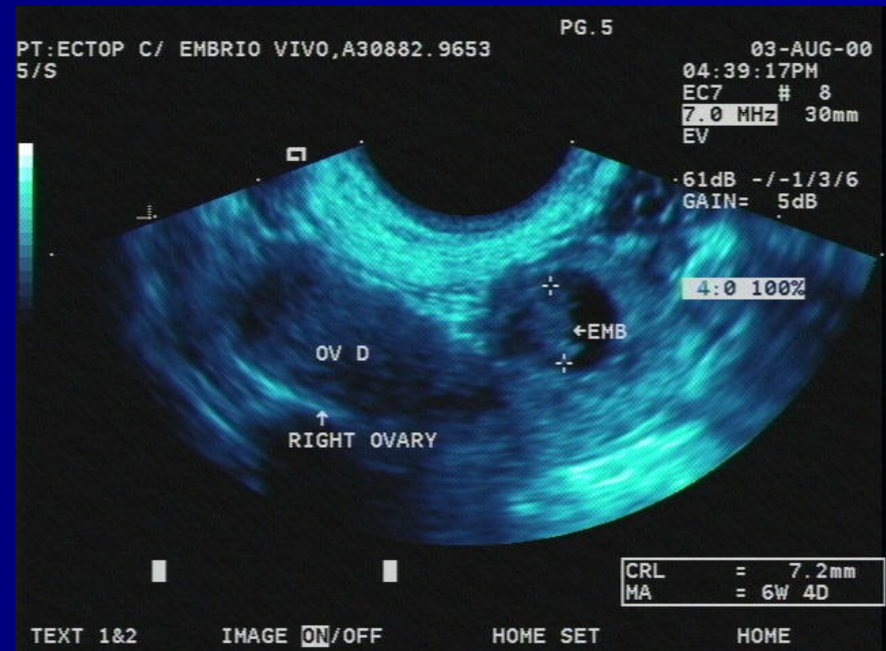
Symptoms of ectopic pregnancy

- ammenorrhoea – 5-8 weeks
- abdominal pain 97%
- vaginal bleeding 79%
- abdominal tenderness 54%
- history of infertility 15%
- IUD 14%
- previous ectopic pregnancy 11%

Ectopic pregnancy - Examinations methods

- hCG
- gynaecological examination
- ultrasound





Ectopic pregnancy - Examinations methods

- Diagnostic laparoscopy

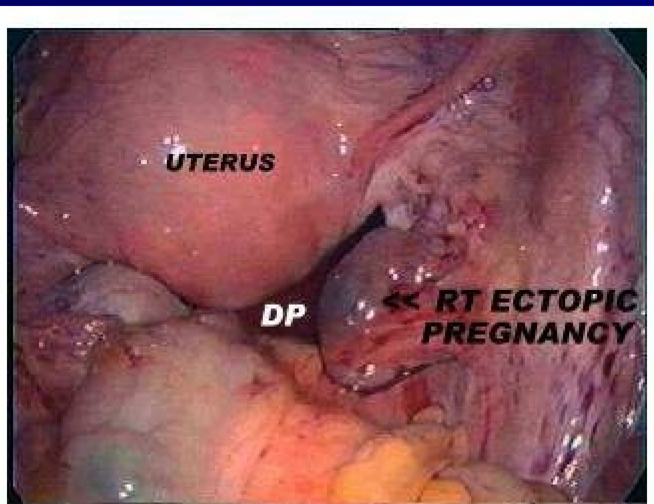
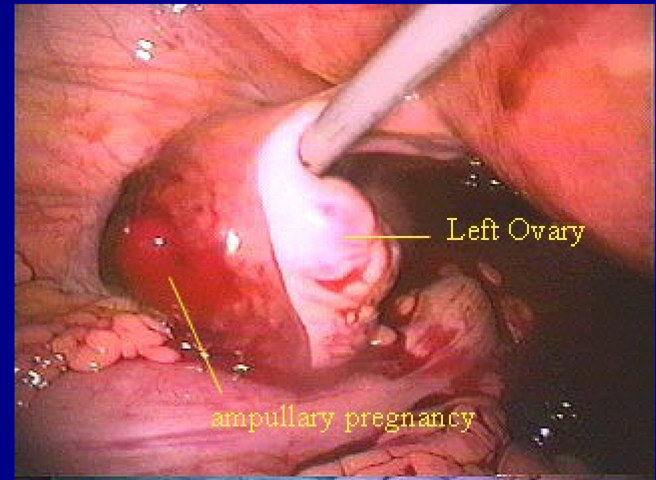
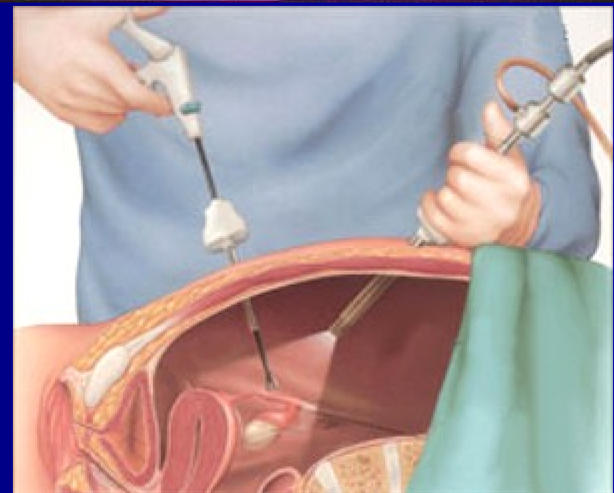
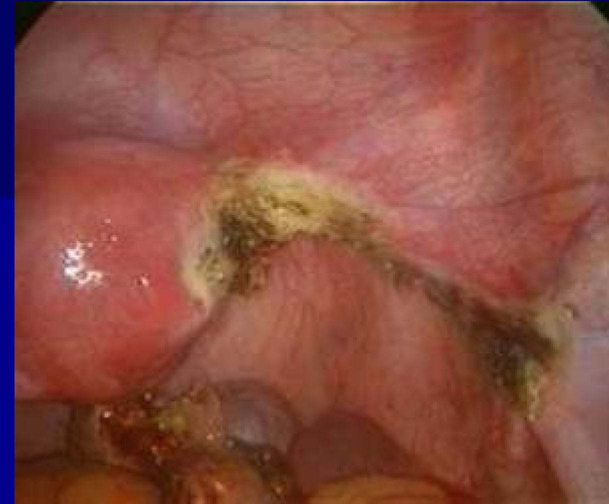


Figure 15:
Right Ectopic Pregnancy (DP= Douglas Pouch)





Ectopic pregnancy - treatment



Surgical

- laparoscopy – 99%
  - salpingectomy - 95 % in CR
  - salpingostomy – rare – high risk of recurrence
  - resection of ectopic pregnancy –
- laparotomy – 1%
  - with life – treatening – heavy blood loss

Medical

- methotrexate

Abortion

- 25 % of women lose a pregnancy at some time in their reproductive lives
- up to 24 weeks of gestation
- reccurent abortion or miscarriage – loss of 3 or more early gestations
- 12 – 15 % of all clinically recognised pregnancies fail spontaneously
- 40% of all pregnancy
- 95% in Ist trimester

Abortion - etiology

- genetic factors 50%
  - chromosomal abnormalities
- infection
- anatomical abnormality of uterus
- cervical incompetence
- social end enviromental factors
  - alcohol, toxic agents, smoking
- alloimmune factors
- endocrine dysfunction
  - luteal phase defect
- autoimmune factors
  - antiphospholipid syndrom
- inherited thrombophilia

Diagnosis of abortion

Gynecological examination

- bleeding
- open cervix

Ultrasound – transvaginal

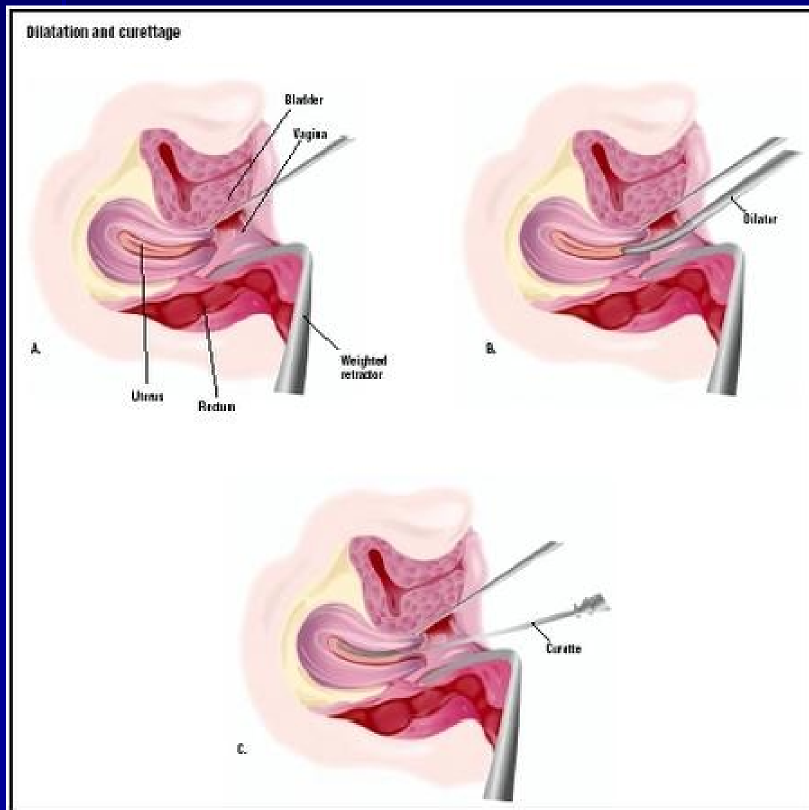
- no FHR
- wiped and irregular shape of gestational sac

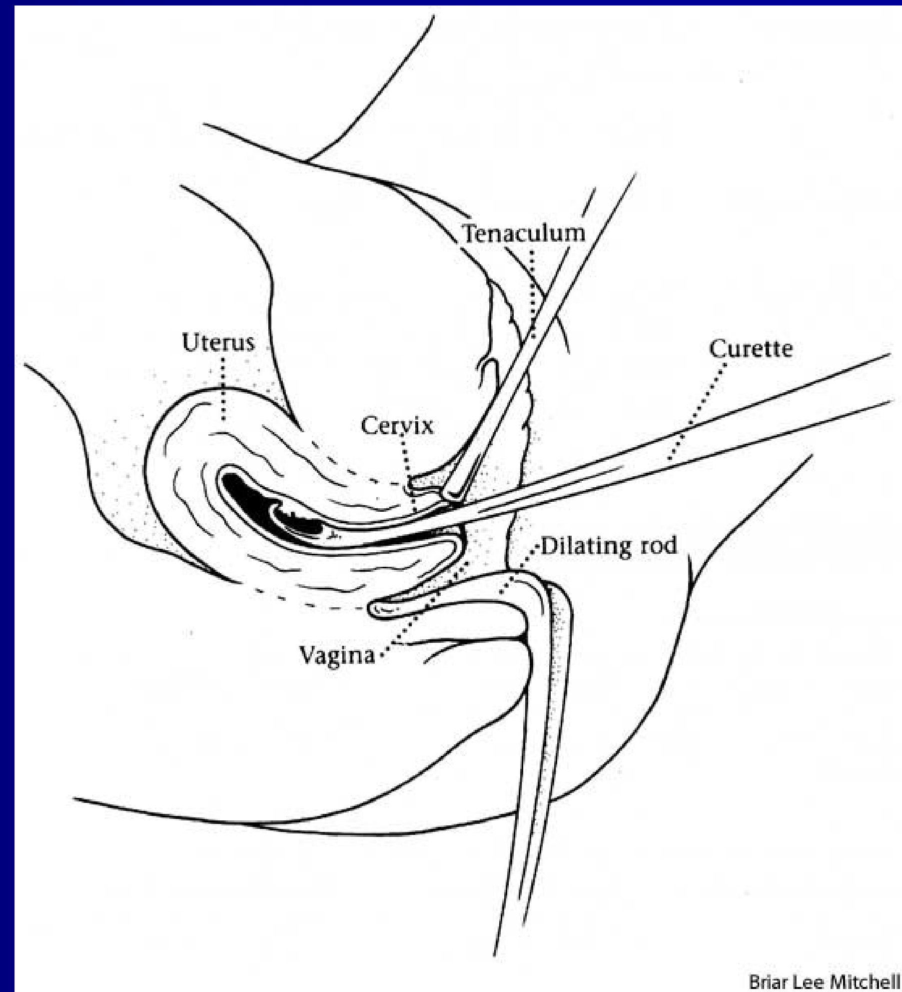
hCG

- decrease level

Treatment of abortion

- curretage



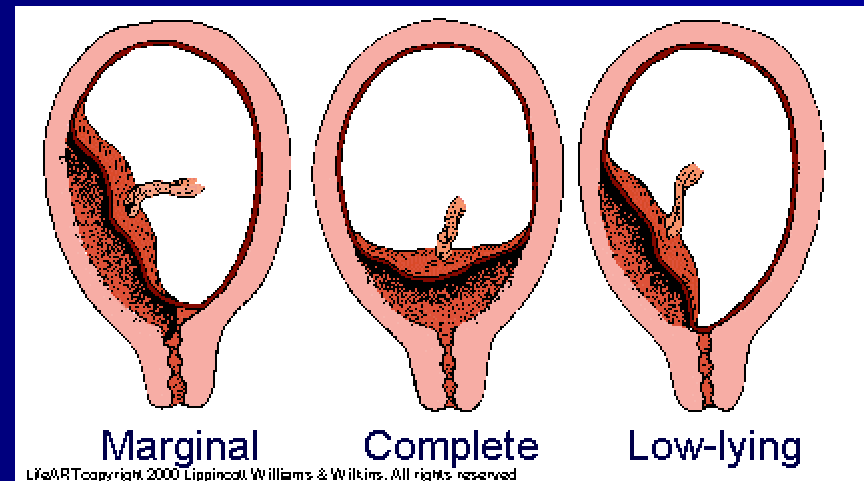


Placenta praevia

Placenta is partly or wholly implanted in the lower uterine segment.

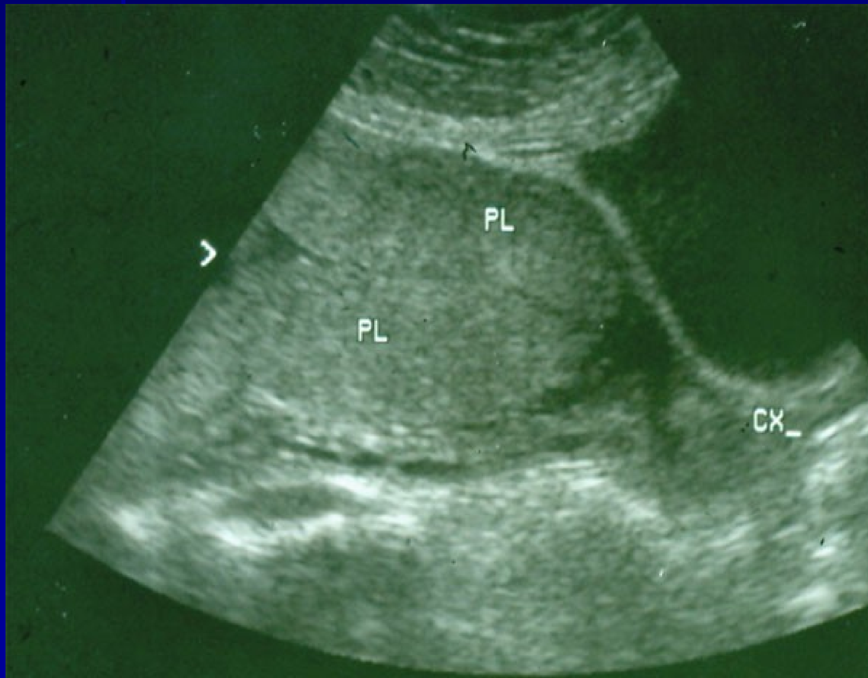
- placenta in lower uterine segment
- placenta praevia marginalis
- placenta praevia partialis
- placenta praevia centralis, totalis

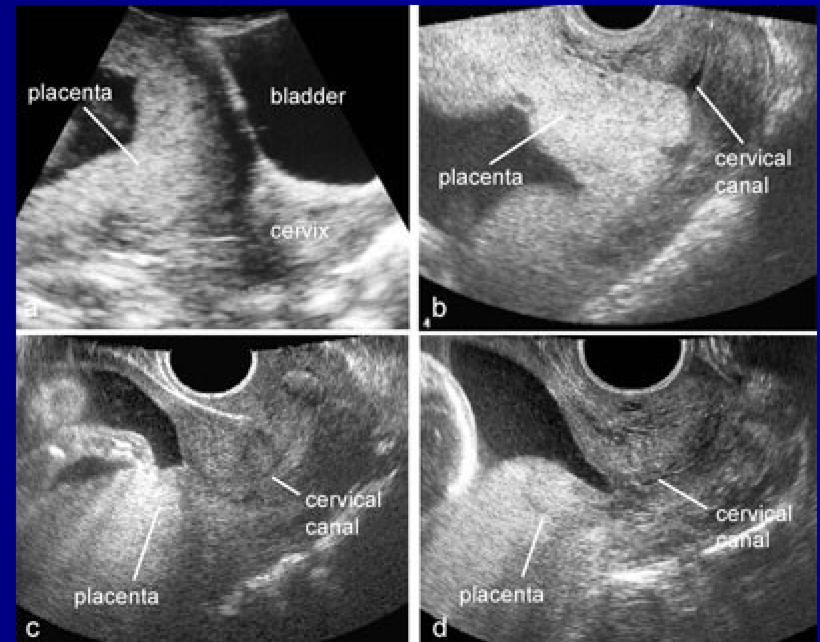
incidence 0,4 – 0,8%



Placenta praevia - diagnosis

- Ultrasonography
  - ultrasound 30 – 32 week





Placenta praevia - diagnosis

Symptoms

- bleeding in the 3rd trimester
- abnormaly located and inserted placenta separates from the decidua
- bleeding results from the exposed uterine vessels from the lower uterine segment which is thin
- lower segment has poor contractility and the bleeding can be sever

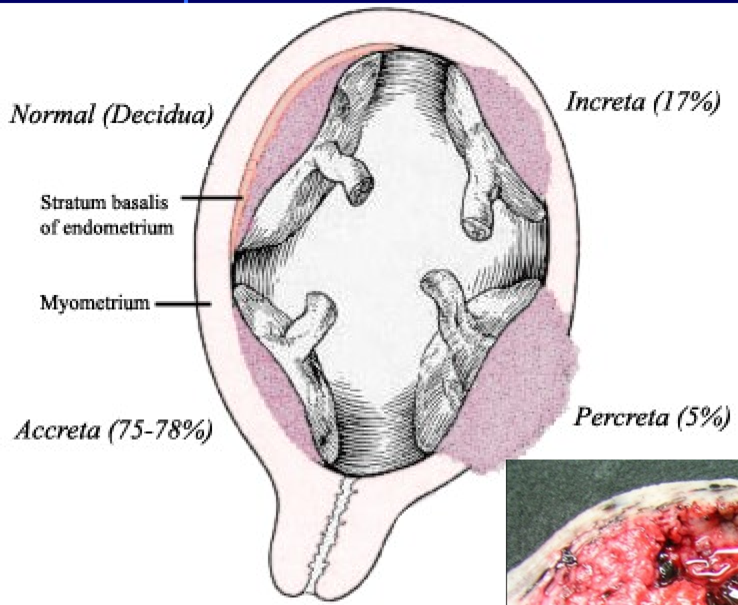
Placenta praevia – clinical management

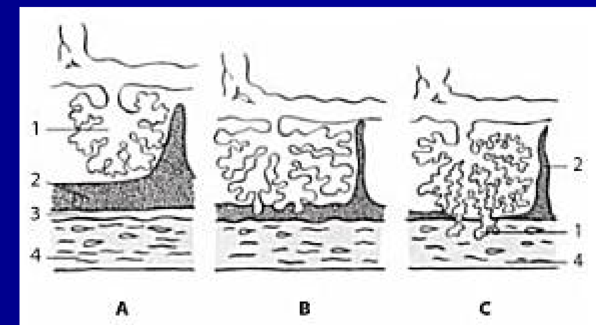
- expectant management
- hospitalisation 32 – 37 week
- caesarean section 38 week – placenta praevia
- caesarean section for heavy bleeding
- tocolytics are contraindicated
- vaginal delivery – low uterine segment placenta, placenta praevia marginalis

Placenta accreta

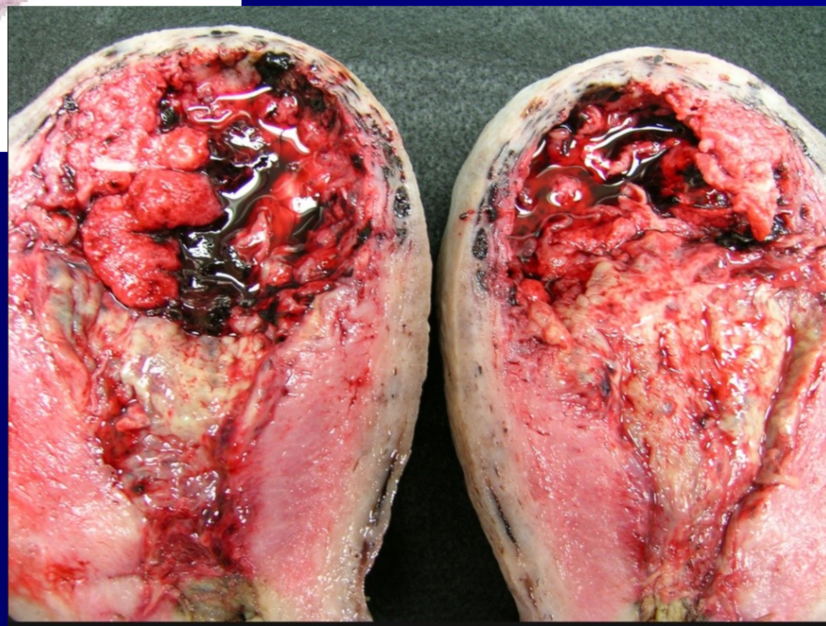
- placenta is abnormally adherent to the uterine wall
- placenta adherens - grows into the decidua basalis
- placenta acreta – grows on the uterine muscles
- placenta increta – invade uterine muscles
- placenta percreta – penetrate through uterus
- 1:2500 deliveries
- placenta praevia 10%

Placenta accreta

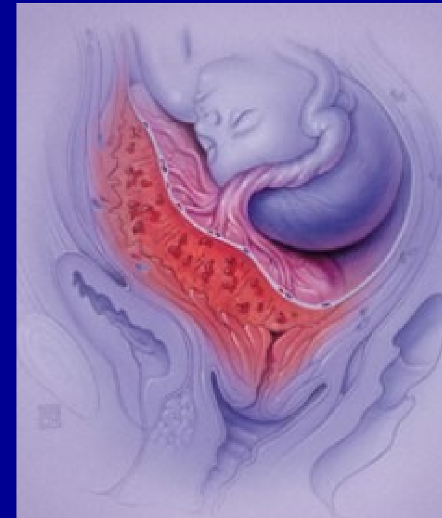




Obr. 13.44 *Typy prorůstání choriových klků (A – normální inzerce, B – placenta adherens, C – placenta increta /accreta/, 1 – choriový klk, 2 – pars compacta decidua basalis, 3 – pars spongiosa decidua basalis, 4 – myometrium)*

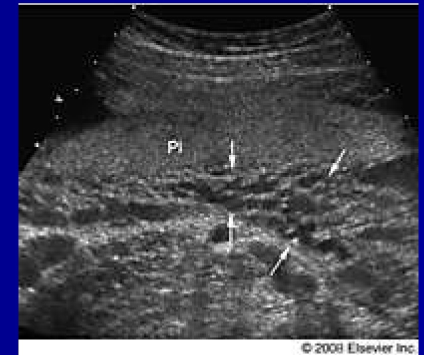


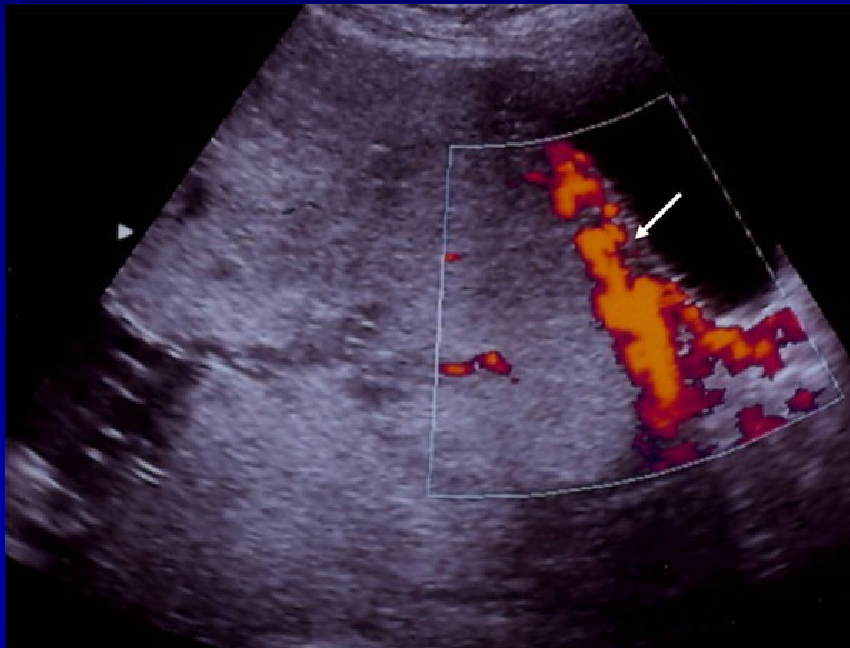
Uterus with placenta accreta
By lunar caustic

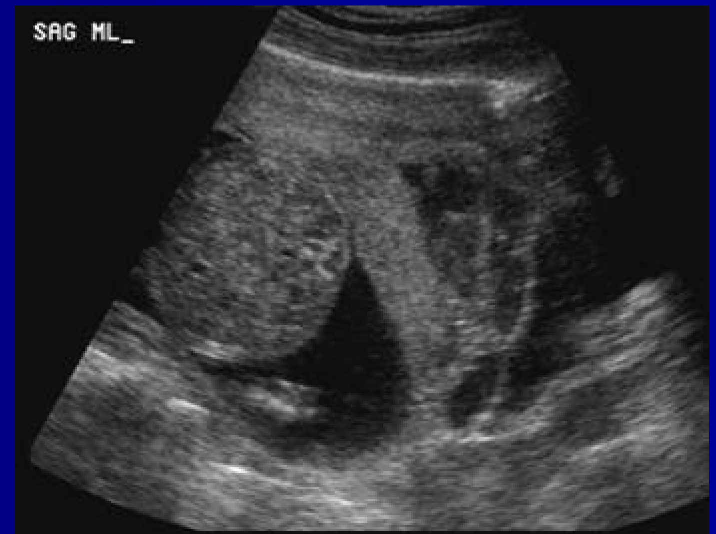


Placenta accreta - diagnosis

- Ultrasound
- MRI







Placenta accreta - management

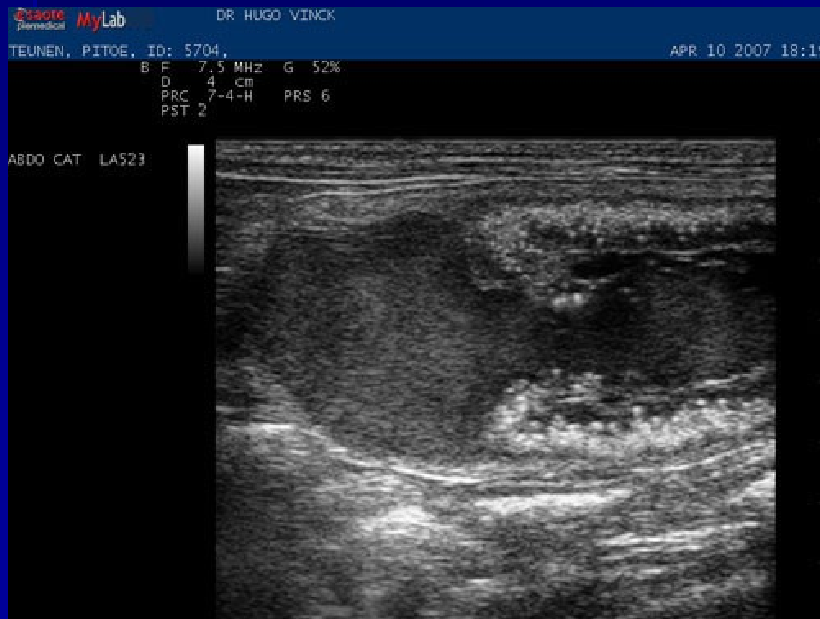
- 90% women with placenta percreta will lose more than 3000 ml of blood during operation
- the diagnosis is made mostly during the caesarean section or labour
- hysterectomy may be necessary by increta and percreta
- pelvic arterial embolisation could be an alternative

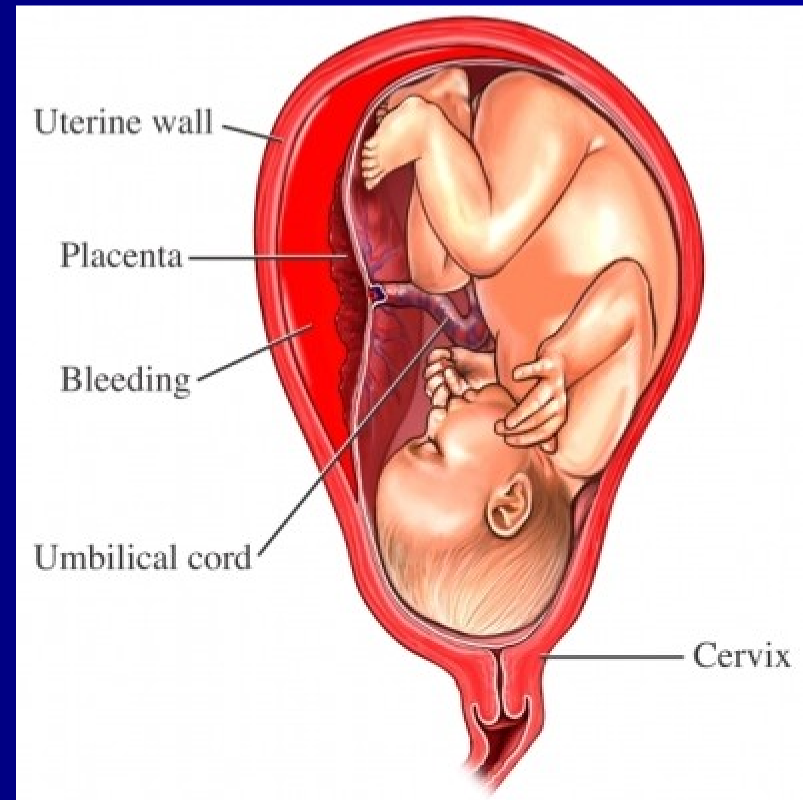
Placental abruption

- incidence 1 %
- placental attachment to the uterus is disrupted by haemorrhage
- etiology
  - abdominal trauma
  - uterine decompression
  - prolonged rupture of the membranes
  - unkonwn

Placenta abruption - diagnosis

- bleeding
- pain – hypertonus
- ultrasound





Placental abruption - management

- expectant management
  - abruption very minor
  - gestation very preterm
- caesarean section
  - immediately by heavy bleeding
  - immediately 32 week above

Postpartum haemorrhage

- uterine atony or hypotony
- retained placenta
- lower genital tract trauma
- uterine rupture

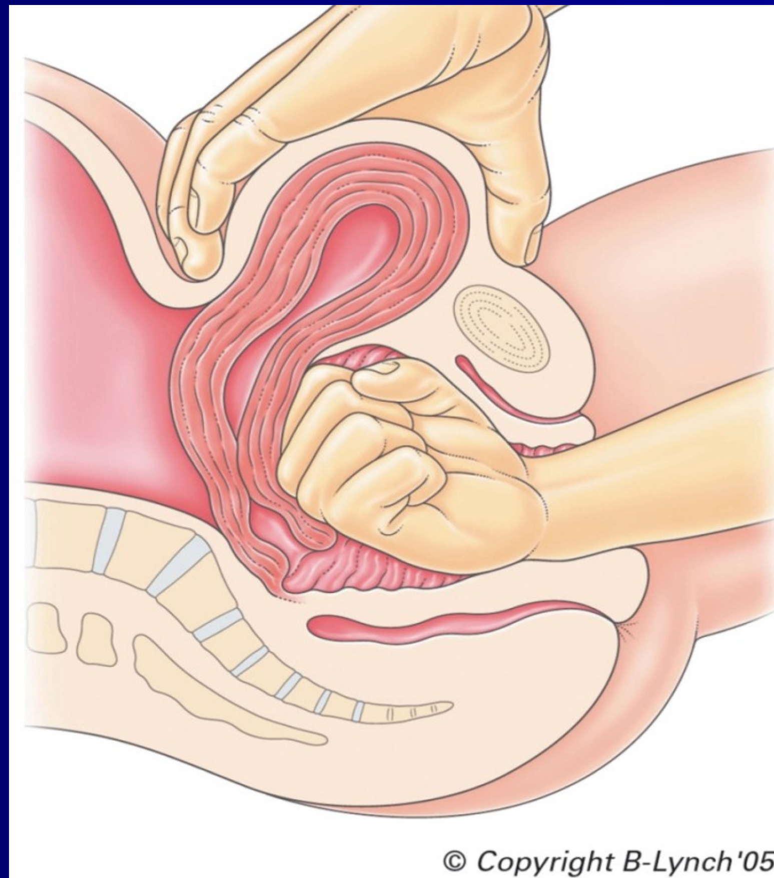
Uterine atony

- uterus contractions and retraction fails to occur
- uterus remains soft , boggy and relaxed
- causes – unknown or retained placenta
- 80% of PPH

Uterine atony - management

- uterotonics
  - oxytocin, PGE, MEM, carbetocin
- compression of uterus
- curretage
- tamponade – Bakri baloon cathetr
- B - lynch compressive suture
- embolisation of pelvic vessels
- ligation of internal iliac vessels
- hysterectomy

Bimanual compression



Bakri baloon tamponade

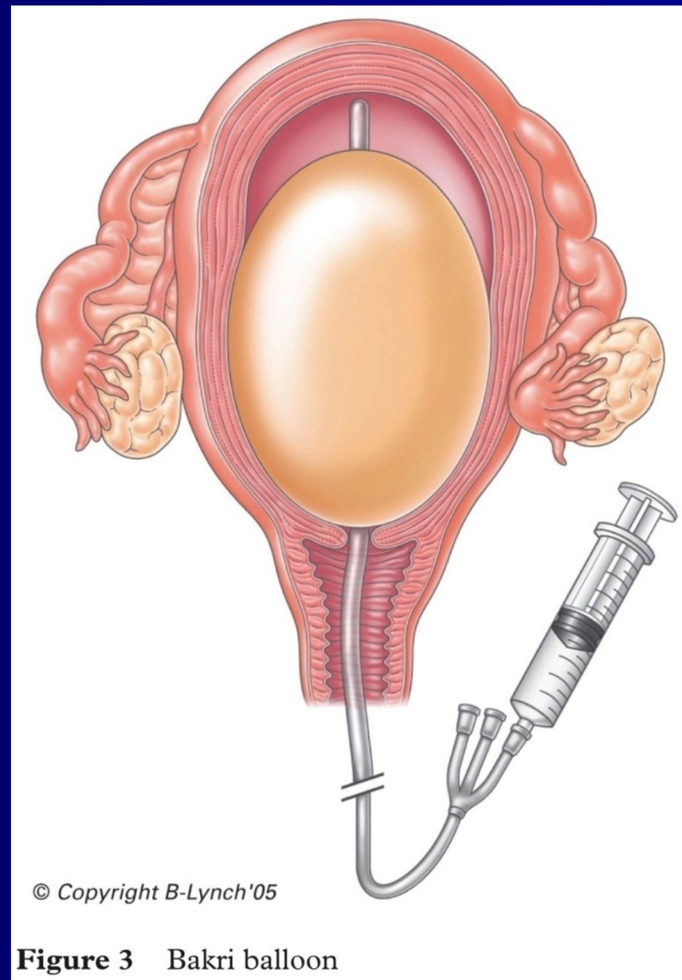
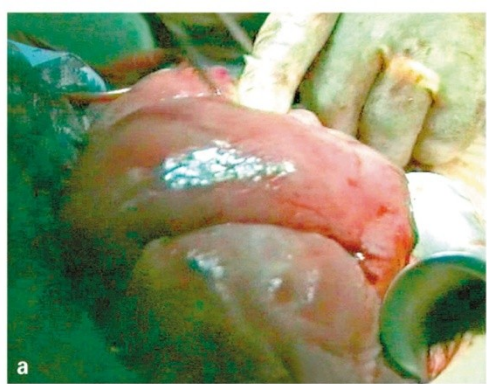


Figure 3 Bakri balloon

B-Lynch compressive suture



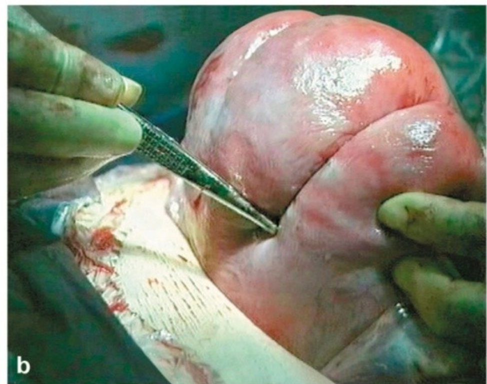


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Figure 3 The *in vivo* effect of correct application of the B-Lynch surgical technique seen immediately after successful suture application. No congestion, no ischemia and no 'shouldering' of the sutures at the fundus

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Figure 2a–c Summary of the application of the B-Lynch procedure

Internal iliac artery ligation

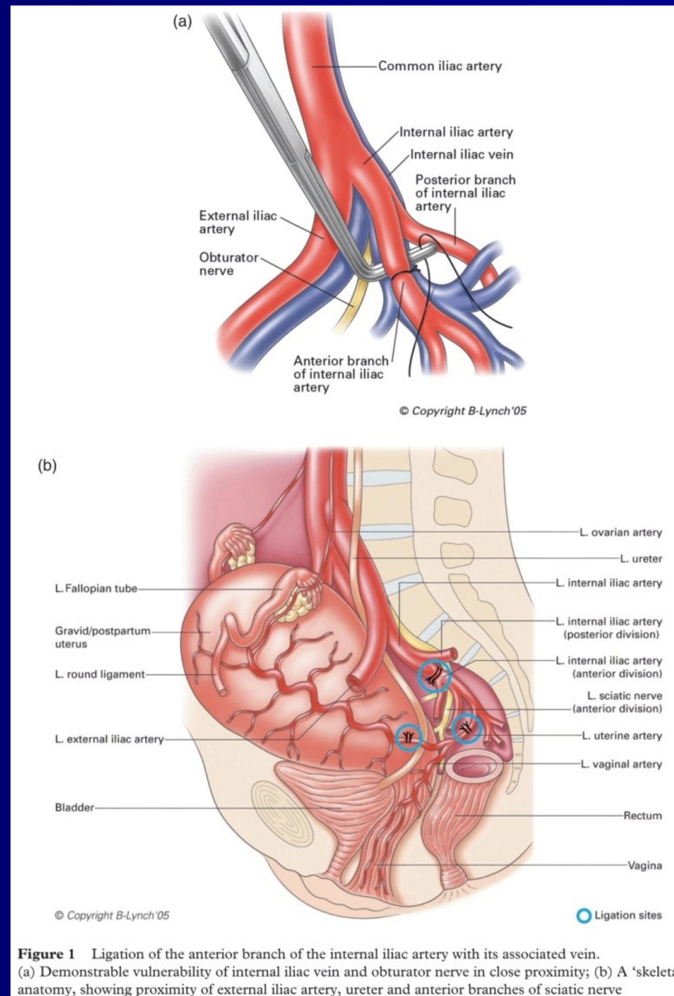

Figure 1 Ligation of the anterior branch of the internal iliac artery with its associated vein. (a) Demonstrable vulnerability of internal iliac vein and obturator nerve in close proximity; (b) A 'skeletal' anatomy, showing proximity of external iliac artery, ureter and anterior branches of sciatic nerve

Retained placenta

Cause

- constriction of lower part – cervix
- placenta adherens

Management

- manual removal + curretage
- general anesthesia