

INTERESTING CASE

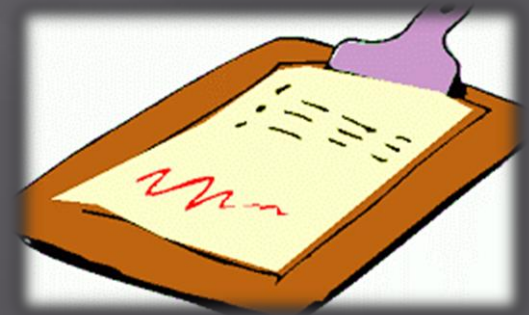
presented by

Students of
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History

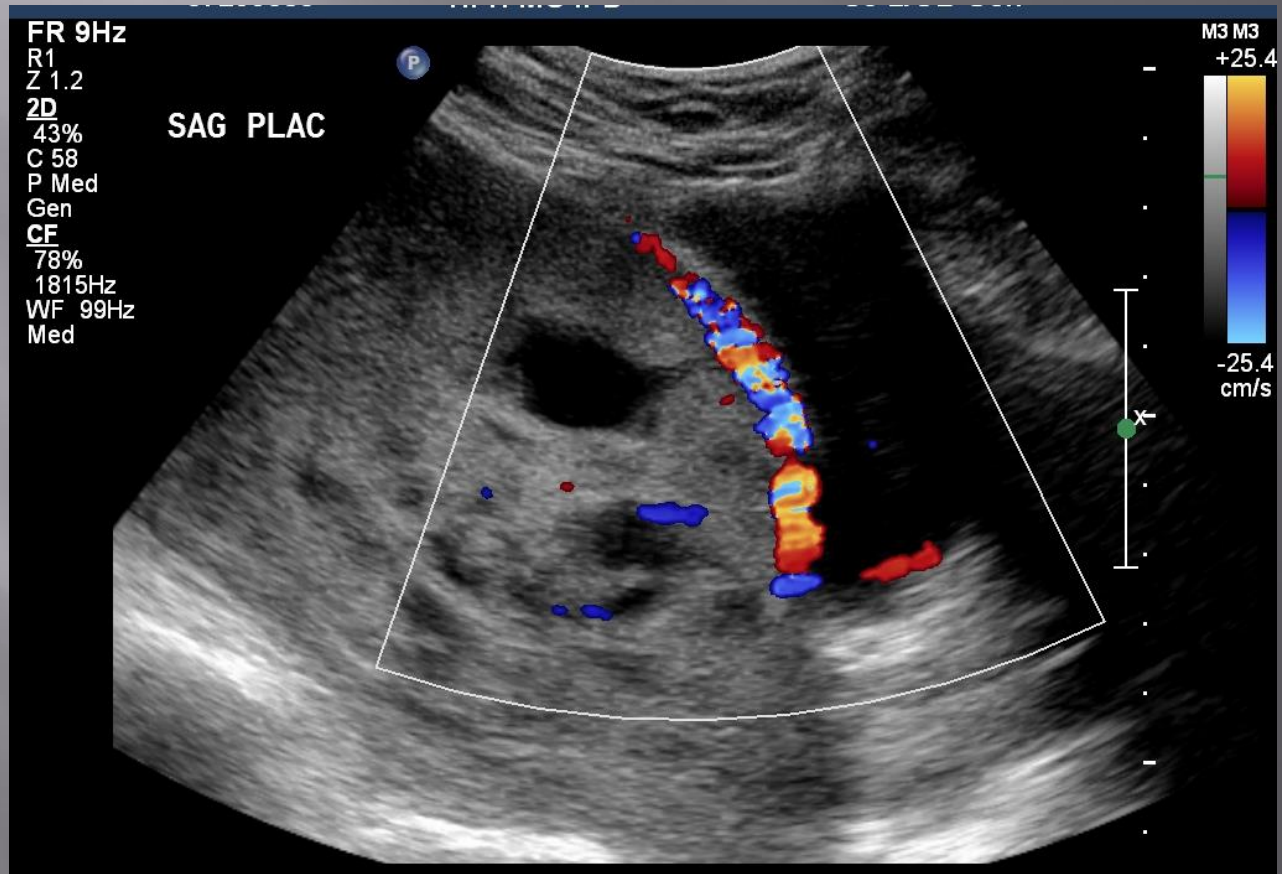
- ▣ 30 year old female
- ▣ G6P4
- ▣ Surgical history – 2 prior C-sections
- ▣ LMP 1-12
- ▣ Dating scan matched LMP
- ▣ Today 29 weeks 4 days
- ▣ Presents with vaginal bleeding
- ▣ Fetal survey was normal



Sag Placenta



Sag



Sag Placenta



Sag

FR 28Hz
RS

2D
68%
C 56
P Med
HRes

SAG PLAC

P

M3



JPEG

14. *** bpm

Sag



Sag

FR 14Hz
RS

2D
43%
C 58
P Med
HRes

SAG PLAC

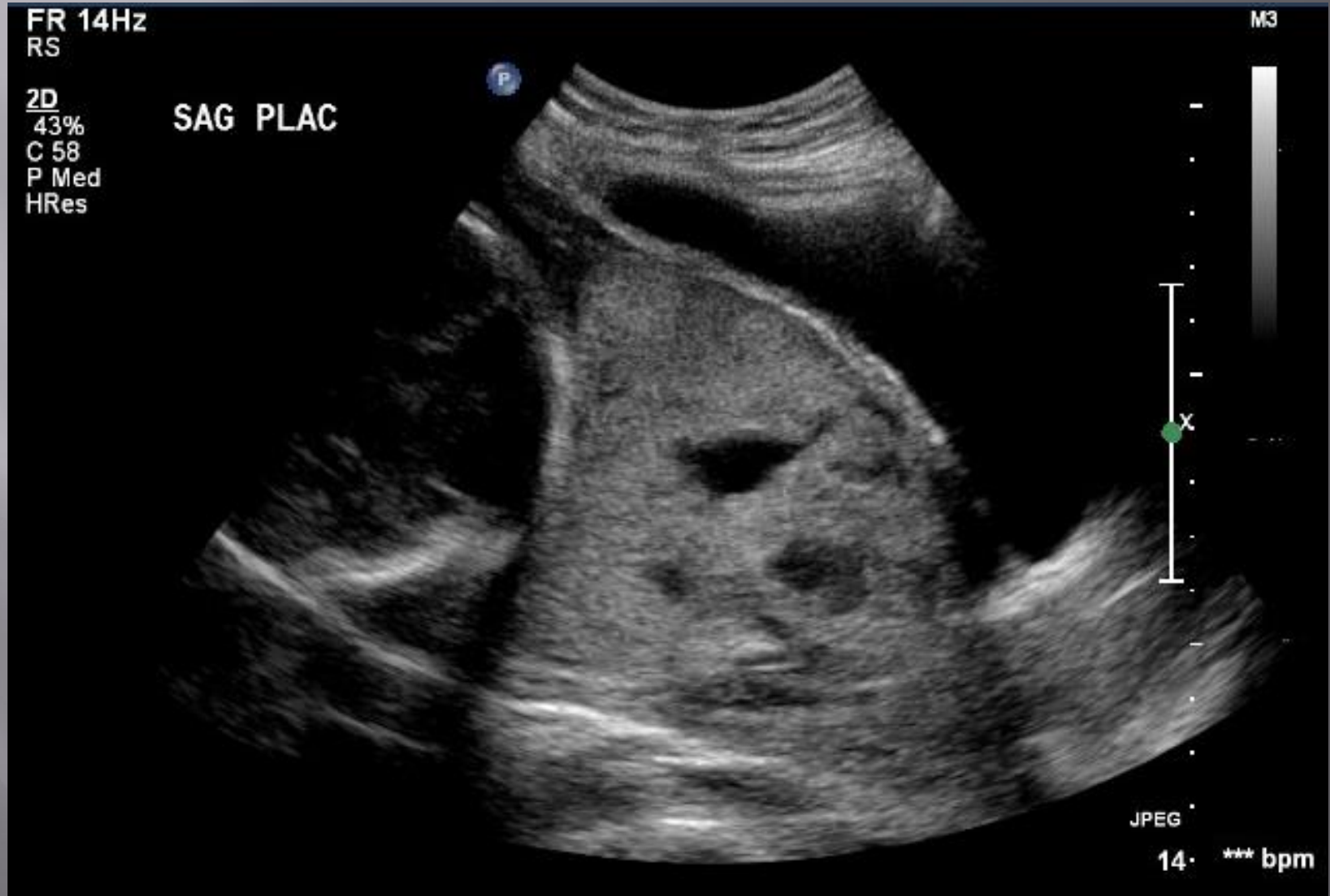
P

M3

X

JPEG

14. *** bpm



Power Doppler



Linear Transducer



What is the diagnosis?

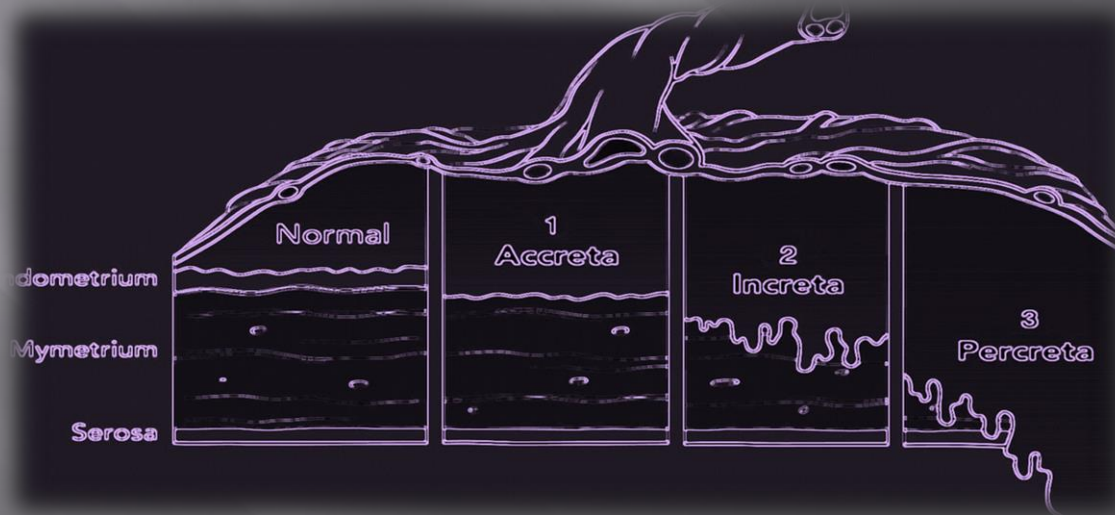


Complete Previa/Placenta Accreta

- ▣ Placenta is symmetrically situated in front of the internal os compatible with placenta previa
- ▣ The placenta appears abnormal with prominent cystic areas. This suggests “swiss cheese” placenta. Which raised the possibility of placenta accreta spectrum.

Abnormal Placental Implantation

- ▣ An *abnormal implantation* is thought to be due to a deficiency in the decidua basalis; The decidua becomes partially or completely replaced by loose connective tissue



Variants of placental invasion

- ▣ **Placenta accreta**- Chorionic villi attach to the myometrium without muscular invasion with little to no invading decidua
 - Occurs in apprx 1 in 2500 deliveries
 - Mild blood loss
- ▣ **Placenta increta**-Further invasion of the chorionic villi into the myometrium
 - Moderate blood loss
- ▣ **Placenta percreta**- penetration of the chorionic villi through the uterus.
 - Severe blood loss

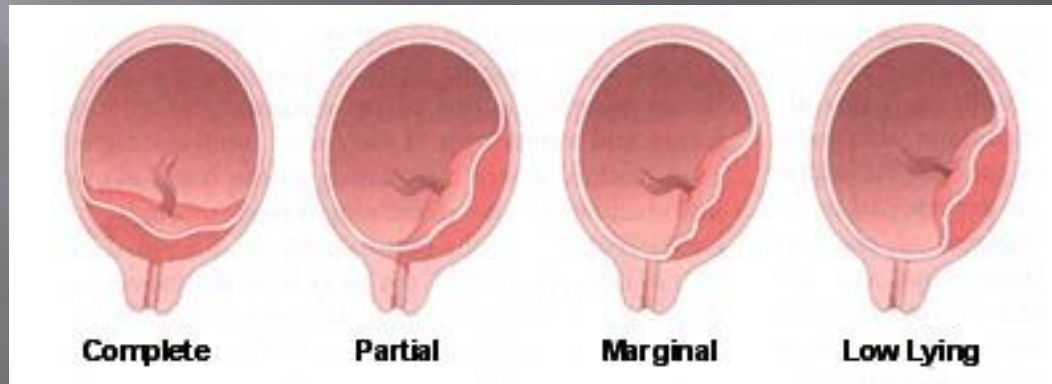
Risk Factors and Complications of Placenta Accreta

- ▣ Risk factors :
 - Placental previa
 - Multiparity
 - Previous c-sections/uterine surgeries
 - AMA

- ▣ Complications can include:
 - hemorrhage/ severe blood loss after delivery
 - Inability to separate placenta from uterus
 - Life- threatening
 - Premature birth

Placenta previa

- ▣ Implantation of placenta over internal cervical os.
 - Complete previa – internal os completely covered
 - Partial previa- partially covers internal os
 - Marginal previa – internal os not covered, edge of placenta comes to margin of os
 - Low-lying placenta – implanted in LUS



Factors and Complications of Placenta Previa

FACTORS

- ▣ AMA
- ▣ Prior c-section
- ▣ Prior previa
- ▣ Multiparity
- ▣ Smoking
- ▣ Cocaine use

COMPLICATIONS

- ▣ Preterm delivery
- ▣ Maternal hemorrhage
- ▣ Increased risk of placental invasion
- ▣ Increased risk of postpartum hemorrhage
- ▣ IUGR

Differentials to Consider

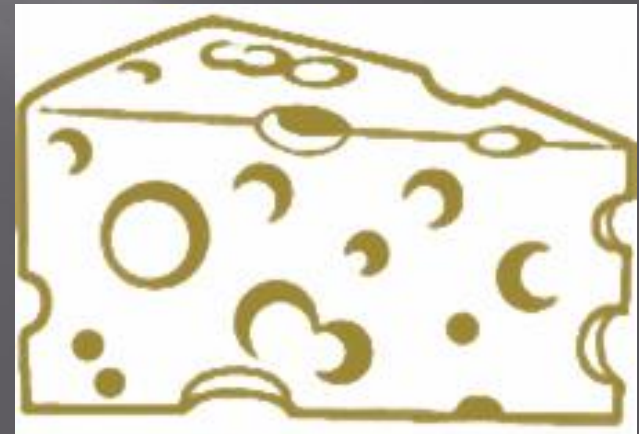
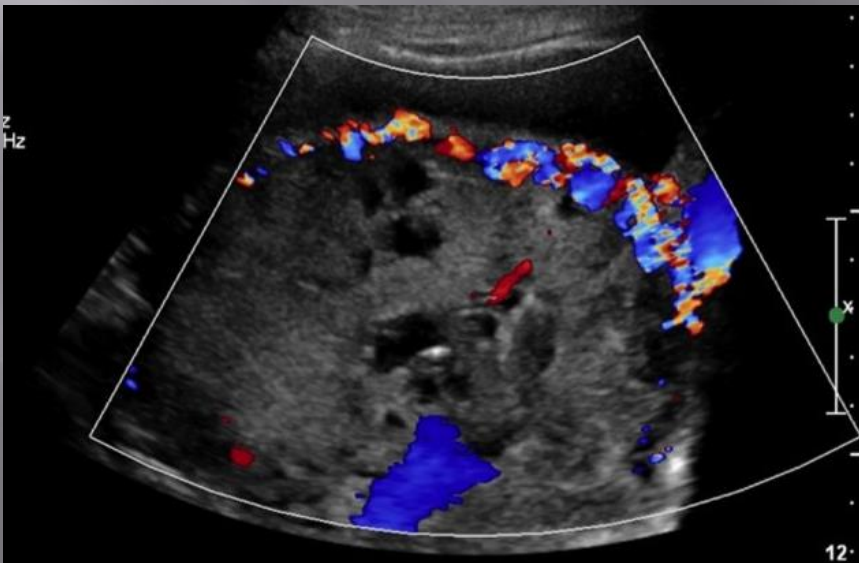
- ▣ Adenomyosis
- ▣ Myometrial contraction
- ▣ Uterine leiomyoma
- ▣ Other types of placental invasion

Sonographic Appearance

- ▣ Abnormal adherence with an absence of the decidua basalis.
- ▣ Lacunae will show vascularity
- ▣ Myometrial thinning (demonstrated in Linear transducer image)
- ▣ Interruption of the border between the bladder and uterine serosa
- ▣ Increased vascularity along bladder wall

“Swiss Cheese” Sign

- ▣ Subsequent observations of increasing numbers of large and irregular placental lakes describe the “Swiss cheese” appearance of the placenta
- ▣ This sign has given the highest positive predictive value of a placenta accreta



“More cheese”

- ▣ The “moth-eaten” or “Swiss cheese” appearances of the vascular placental lacunae vary in size and shape, and often appear as parallel channels that extend from the placental tissue into the myometrium.
- ▣ Compared to vascular lakes, they are more indistinct and will demonstrate turbulent flow rather than rounded shape with laminar flow.
- ▣ They will become more prominent during the third trimester.

Treatments

- ▣ A hysterectomy is a definitive treatment
- ▣ If percreta is present, resection of adjacent organs may be included as well
- ▣ If uterine preservation is desired, particular cases may have the option for conservative treatment, including curettage, over sewing of the placental bed, and ligation of the uterine arteries or the anterior divisions of the internal iliac arteries
- ▣ An early Cesarean delivery is likely (near 34 weeks)

