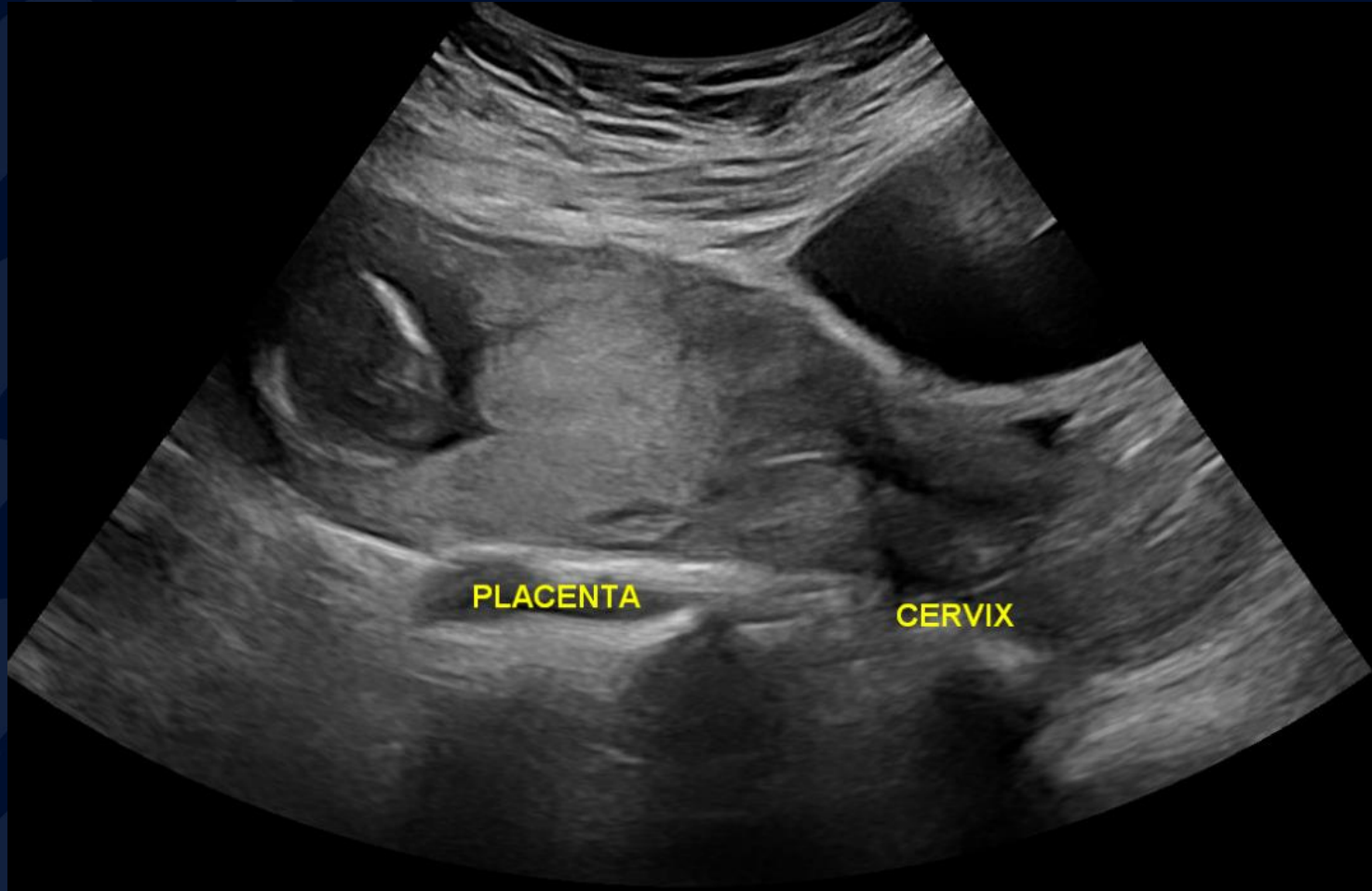


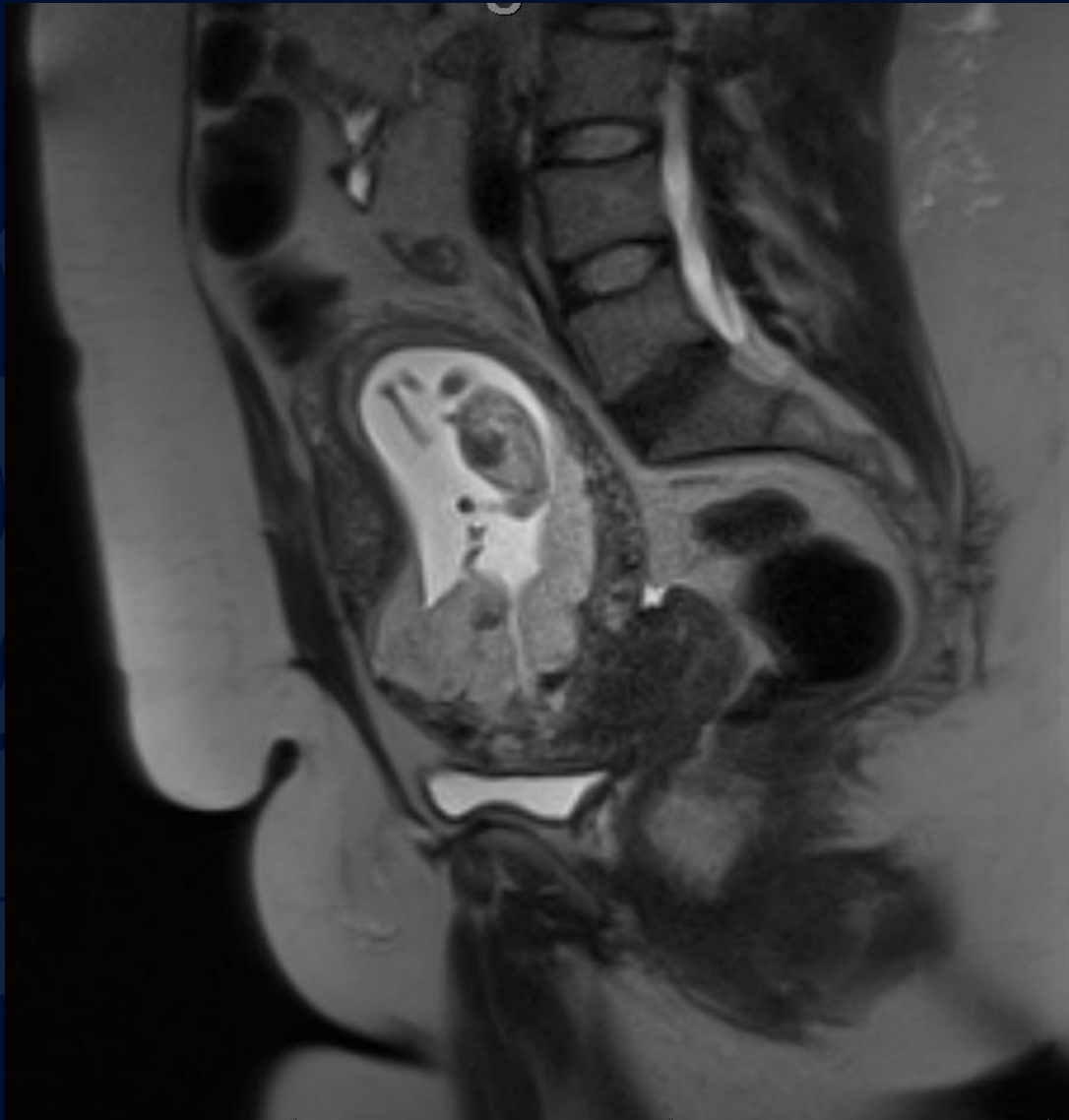
33-year-old pregnant female presenting with acute vaginal bleeding

Lucas Smith, MS3

Transabdominal Ultrasound



T2 Sagittal

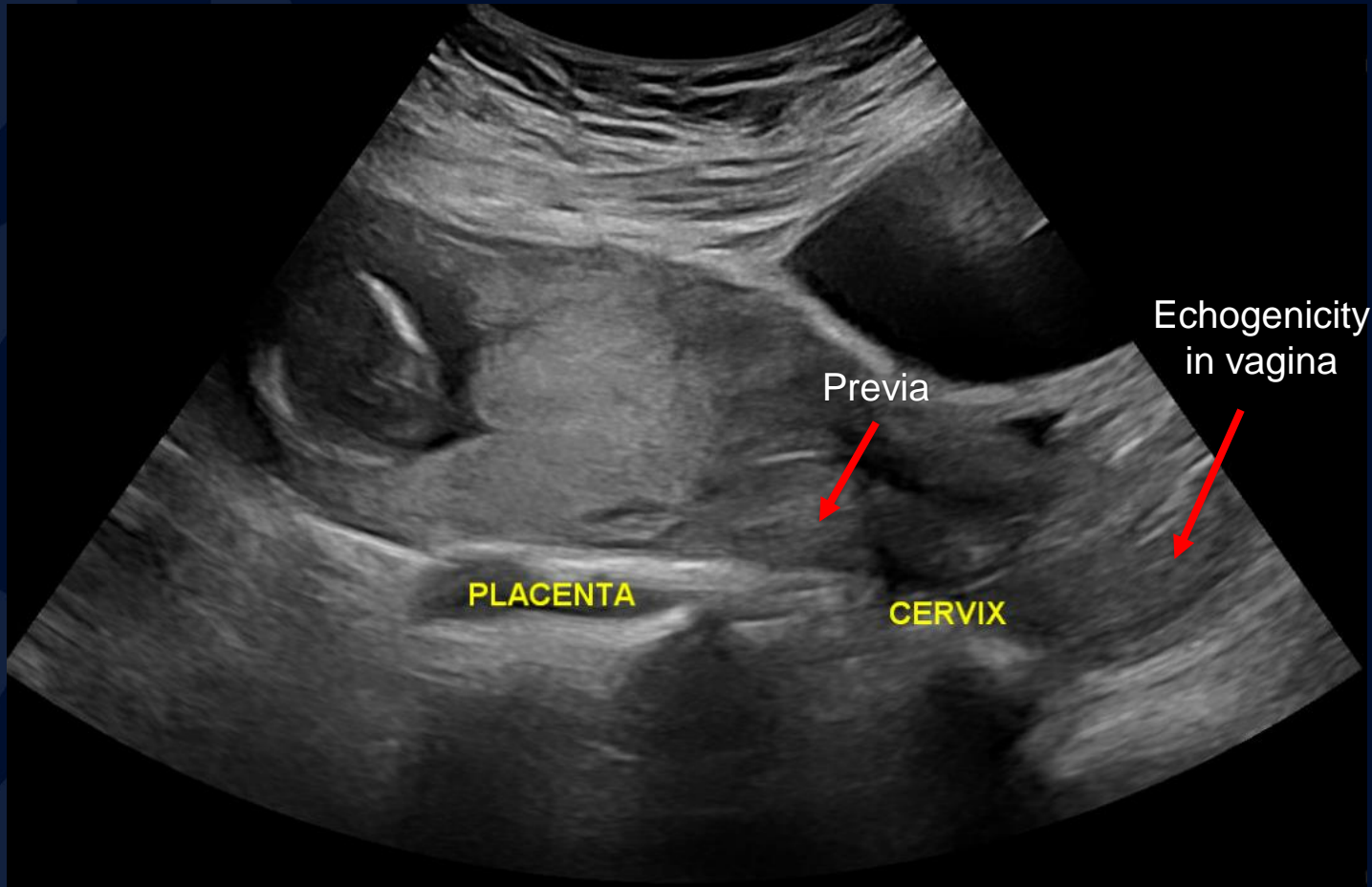


A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. The leaf has a prominent central vein and several smaller veins branching off, with a scalloped edge.

?

Placenta Previa

Transabdominal Ultrasound



Echogenic clot in vaginal canal

Placenta is covering cervical os

T2 Sagittal



Heterogenous placenta invades the myometrium anteriorly to serosal surface but does not extend beyond it

Placenta Previa

Definition: placenta is abnormally positioned and covers the cervical opening and can lead to painless third trimester vaginal bleeding

- Complete previa: placenta completely covers the internal cervical os
- Partial previa: placenta partially covers the cervical os
- Marginal previa: placenta is very close to the cervical os but does not cover it
- Low-lying placenta: placenta is near the cervical os but not touching it

Pathophysiology: abnormal trophoblast invasion → defective decidualization → inadequate myometrial tissue → scarred uterine wall (e.g., prior C-section) → disruption of uterine-placental interface → abnormal placental attachment → potential involvement of adjacent organs

Differential diagnosis: miscarriage, ectopic pregnancy, Subchorionic hematoma
Placenta previa, accreta, increta, percreta, cervical or vaginal infections, cervical polyps or ectropion, trauma or injury to the cervix or vagina

Treatment:

- Hysterectomy with fetus in situ

Imaging Findings

- **Ultrasound** (primary imaging modality)
 - **Common findings:**
 - The placenta covering the internal cervical os partially or completely
 - Loss of the normal hypoechoic retroplacental zone, which indicates the placenta's abnormal attachment to the lower uterine segment
 - **Transabdominal:** can help identify complete, partial, and marginal previa; may be less accurate for low-lying placentas
 - **Transvaginal:** more accurate for diagnosing low-lying placentas and confirming the presence and extent of placenta previa
- **MRI**
 - Gold standard imaging modality for the placenta and its relationship to the cervix, although in most instances it is not required. Sagittal images best demonstrate the relationship of the placenta to the internal cervical os

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