Morbidly Adherent Placenta

UAB Progress in Ob/Gyn
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Disclosure Statement

• None of the presenters have any relevant financial relationships to disclose

Educational Objectives

1. Review diagnosis of morbidly adherent placenta
2. Examine ultrasound findings of accretta
3. Discuss surgical management and complications of accretta
Background

- Morbidly adherent placenta includes placenta accreta, increta and percreta
- It is a leading cause of maternal morbidity and mortality worldwide
- We will use patient cases to facilitate a panel and audience discussion about this important topic

Normal Placental Development

Placental Development

Decidua
Placenta
Amniotic cavity
Morbidly Adherent Placenta

- Abnormal adherence of placenta to the implantation site
- Grades
  1. Accreta 79%
  2. Increta 14%
  3. Percreta 7%

Wu S. AJOG 2005;192:1458.
Incidence

- Rising:
  - .03/1000 in 1950
  - .8/1000 in 1980
  - 3/1000 in 2000

Pathogenesis

- Defective decidualization
- Defective healing of uterine scar
- Invasive trophoblast

Risk Factors

- Uterine surgery
- Placenta previa
- Advanced maternal age
- Multiparity
- Uterine anomalies/fibroids
Placenta Accreta %

<table>
<thead>
<tr>
<th>Cesarean Delivery</th>
<th>Placenta Previa</th>
<th>No Previa</th>
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</thead>
<tbody>
<tr>
<td>First</td>
<td>3.3</td>
<td>0.2</td>
</tr>
<tr>
<td>Second</td>
<td>11</td>
<td>0.3</td>
</tr>
<tr>
<td>Third</td>
<td>40</td>
<td>0.6</td>
</tr>
<tr>
<td>Fourth</td>
<td>61</td>
<td>2.1</td>
</tr>
<tr>
<td>Fifth</td>
<td>67</td>
<td>2.3</td>
</tr>
<tr>
<td>≥ Sixth</td>
<td>67</td>
<td>7.7</td>
</tr>
</tbody>
</table>


Risks

- Hemorrhage
- Transfusion 90-95%
  - > 10u PRBC’s in 40%
- Indicated preterm delivery
- Hysterectomy

Complications

- Damage to surrounding organs
- Reoperation for bleeding
- Transfusion reactions
- Postoperative complications
  - PTE
  - Infection
  - Organ failure
- Death 6-7%
**Diagnosis**

- Ultrasound or MRI
- Both modalities ~90% accurate
- Routine MRI not indicated
  - Not shown to improve outcomes
  - Helpful for:
    - Inconclusive US
    - Establishing depth of invasion for percreta

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**Case #1**

- 30 yo G4P3
- Prior C/S x 3
- 18-week anatomy survey
- Complete placenta previa

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**Next Step?**

a. Rescan in your office at 32 weeks
b. Obtain an MRI
c. Refer to MFM for ultrasound evaluation
d. Ignore the findings . . . there’s nothing concerning
• Goal = antepartum diagnosis of accreta
  – Improves outcomes of hemorrhage & blood transfusion
• Risk for accreta?
  – 61%
• Management?
  – Serial ultrasound follow-up by MFM
  – Delivery planning

Case #1

Antepartum Management

- Is hospitalization recommended?
- What are indications for transfusion?
- What antepartum consultations are indicated?

Delivery Management

- Location of delivery?
  - Average blood loss 2-5L
  - Operative time 2-3 hours

Delivery Management

- Timing of delivery?
  - Increased risk with emergency delivery
    - Blood loss & surgical complications
  - NICHD & SMFM panel recommends 34-35 wks
    - Decision analysis showed optimal maternal & neonatal outcomes at 34 weeks

*Spong CY. Obstet Gynecol 2011;118:323.*
Surgical Management

• Type of skin incision?
• Type of uterine incision?
• Type of anesthesia?

Surgical Management

• Surgical management?
  – Hysterectomy
    • Rapid clamping & transection
    • Avoid disruption of uterine serosa

Surgical Management

• Do you remove the placenta before hysterectomy?
  o Yes
  o No
Surgical Management

• Anesthesia concerns
  – Large-bore IV’s
  – High-flow infusion & suction devices
  – Hemodynamic monitoring
  – Frequent assessment of volume status & labs
  – SCD’s

• Crystalloid & blood product transfusion prn
• Ratio of products for large volume transfusion?
• Should cell-saver be used?

ACOG Committee Opinion 2012.

Case #2

• 34yo G4P2 at 34 weeks
• Placenta previa with increta
• C-hyst with incidental cystotomy
• EBL 9L
• Intraop products: 12u RBC’s, 7 FFP, 1 PLT
• Stable postop - admitted to SICU for serial monitoring
Case #2

- 12 hours postop:
  - Tachycardic to 140’s with severe hypotension
  - Sudden loss of consciousness
  - Over 4 hours, hct dropped 28 → 8%
  - INR 1.96; PLT 61k

Postoperative Hemorrhage

- Management?
  - Re-exploration
  - Identify & repair bleeding sources
  - Other considerations:
    - Pelvic pressure packing
    - Hypogastric artery ligation
  - Correction of coagulopathy
  - Once stable, may consider radiologic pelvic artery embolization for persistent bleeding

Case #3

- 28yo G1P0 at 40 weeks
- Delivered by C/S due to failure to progress & chorioamnionitis
- Unable to separate a small section of the posterior placenta from the uterine wall
Focal Accreta

- Management?
  - Manual removal and/or sharp curettage
  - Treatment for localized bleeding:
    - Deep myometrial sutures
    - Balloon tamponade

Case #4

- 36yo G7P3 at 6 weeks’ GA
- 5-days of vaginal bleeding
- Appropriately rising beta-hcg’s
- Prior C/S x 3
- Low implantation of gestational sac
First Trimester Accreta

- Management?

Case #5

- 41yo G4P3 at 19 weeks with twins
- Placenta previa
- Prior C/S x 3
- Elevated MSAFP
- Gross hematuria requiring ICU admission & serial blood transfusions
Placenta Percreta

- Management?

Conclusions

- Primary risk from morbidly adherent placenta is hemorrhage
- Antepartum diagnosis or suspicion is imperative
  - Allows surgical preparation
  - Reduces maternal/fetal morbidity & mortality
- No diagnostic technique completely assures the presence or absence of accreta
Questions?