Hysteroscopic evaluation of uterine cavity after conservative management of placenta accreta.

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Introduction

• Invasive placental disease is one of the most important causes of severe postpartum hemorrhage.

• Mortality rate up to 7% (O’Brien and Al. AJOG; 1997)

• Incidence: 1/533 to 1/1205 deliveries (Eller and Al. BJOG; 2009)

• Two management options:
  o Radical treatment: Cesarean and hysterectomy (Eller and Al. BJOG; 2009)
  o Conservative treatment: part or entire placenta left in situ (Kayem and Al. Obstet Gynecol; 2004 – BJOG 2009 Sentilhes and Al. Obstetrics and Gynecology; 2010)
Introduction

• Conservative management:
  
  o Long term follow up
  
  o Complete elimination of residual placenta
  
  Risks of retained tissues:
    → *Place for hysteroscopic resection* (Hequet and Al.; Aust NZ J obstet and gynecol 2013
    Nisolle and Al. ACTA Obstet Gynecol 2013
    Legendre and Al. JMIG 2014)

  o Fertility: recurrence and synechiae
    (Sentilhes and Al. Hum reprod 2010 – BJOG 2010
    Salomon and Al. Hum reprod 2003
    Nizard and Al. Hum reprod 2003)

  o Post traumatic stress disorder (PTSD)
    (Elmir and Al.; J Adv Nurs 2010
    Gotwall and Al.; BJOG 2002)
Study objective

• Main outcome:
  → hysteroscopic evaluation of uterine cavity after conservative treatment of placenta accreta: synechiae / residual placenta

• Secondary outcomes:
  o Subsequent fertility
  o Post-traumatic stress disorder (PTSD)
Methods

• **Design**: prospective and observationnal pilot study

• **Setting**: secondary care university hospital

• **Patients**:
  o All patients followed up from 2006 to 2014 for an abnormal placentation were prospectively recorded into a data base.
  o All patients with conservative management were asked to join the study.

• **Intervention**:
  o Long-term follow up (clinical evaluation / ultrasound and RMI)
  o Diagnostic hysteroscopy
  o Questionnaire (IES-R score, subsequent pregnancy)
Methods

• Post-traumatic stress syndrome: IES-R survey (Impact of Event Scale-revised) (Weiss and Marmar; 1997)

• Short self-administered questionnaire
  o 22 questions
    • Avoidance behavior
    • Intrusive thoughts
    • Physical manifestations of hyper sensitivity (anger, irritability, hypervigilance state ..)

  o No specific cut off, any score ≥ 33 is correlated with PTSD
Results: flow chart

- 53 patients followed up for abnormal placentation
  - 16 patients with radical management (hysterectomy)
  - 6 patients with previous hysteroscopic resection of retained placenta
- 31 patients eligible
  - 3 patients always followed up on ultrasound evaluation
  - 13 patients not coming for long term evaluation
- 15 patients included for hysteroscopic evaluation (n=15) and IES-R score (n=9)
## Demographic data

<table>
<thead>
<tr>
<th></th>
<th>n or median</th>
<th>% or range</th>
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</thead>
<tbody>
<tr>
<td><strong>Age (years)</strong></td>
<td>33.8</td>
<td>[25-41]</td>
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<tr>
<td><strong>Parity</strong></td>
<td>3.1</td>
<td>[1-5]</td>
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<tr>
<td><strong>Previous cesarean section</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>6</td>
<td>40%</td>
</tr>
<tr>
<td>&gt;1</td>
<td>9</td>
<td>60%</td>
</tr>
<tr>
<td><strong>Placenta accreta</strong></td>
<td>6</td>
<td>40%</td>
</tr>
<tr>
<td><strong>Placenta percreta</strong></td>
<td>9</td>
<td>60%</td>
</tr>
</tbody>
</table>
# Management of delivery

<table>
<thead>
<tr>
<th></th>
<th>N or median</th>
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<tbody>
<tr>
<td>Gestational age at delivery (weeks)</td>
<td>36</td>
<td>[29-40]</td>
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<tr>
<td>Type of delivery</td>
<td></td>
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<tr>
<td>Scheduled cesarean</td>
<td>10</td>
<td>66.6%</td>
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<tr>
<td>Emergency cesarean</td>
<td>5</td>
<td>33.3%</td>
</tr>
<tr>
<td>Conservative management</td>
<td>15</td>
<td>100%</td>
</tr>
<tr>
<td>Total conservation of placenta</td>
<td>13</td>
<td>86.6%</td>
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<tr>
<td>Partial conservation of placenta</td>
<td>2</td>
<td>13.3%</td>
</tr>
<tr>
<td>Immediate pelvic embolization</td>
<td>4</td>
<td>26%</td>
</tr>
</tbody>
</table>
## Long term follow-up

<table>
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<tr>
<th>Event</th>
<th>n or median</th>
<th>% or range</th>
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</thead>
<tbody>
<tr>
<td>Hospital readmission</td>
<td>6</td>
<td>40%</td>
</tr>
<tr>
<td><strong>Delayed uterine artery embolization</strong></td>
<td>6</td>
<td>40%</td>
</tr>
<tr>
<td>Delay between delivery and delayed embolization (days)</td>
<td>22</td>
<td>[1-60]</td>
</tr>
<tr>
<td>Delayed bleeding</td>
<td>5</td>
<td>33.3%</td>
</tr>
<tr>
<td>Postpartum sepsis</td>
<td>4</td>
<td>26.6%</td>
</tr>
</tbody>
</table>
Main outcomes

- Retained placenta: 3 patients (20%)
  - Hysteroscopic resection: 2 patients (13%).
  - One patient had minimal retention.

- Risk of synechiae: 1 patient was affected (6.5%)

- No subsequent pregnancy

- 9 patients answered the IES-R survey
- 6 patients: > 33 points, confirming PTSD (66.6%)
Conclusion

This prospective unicentric cohort with a large population shows good results on uterine cavity after conservative treatment, associated with pelvic arterial embolization for few patients.

To evaluate fertility, others studies are necessary, with assessment of endometrial tissue also.