Postpartum Endometritis

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Learning Objectives

- Identify risk factors, clinical features, and diagnosis of post-partum endometritis
- Develop appropriate treatment plan for post-partum endometritis
- Understand strategies for prevention of post-partum endometritis
- BONUS Breastfeeding antibiotic considerations

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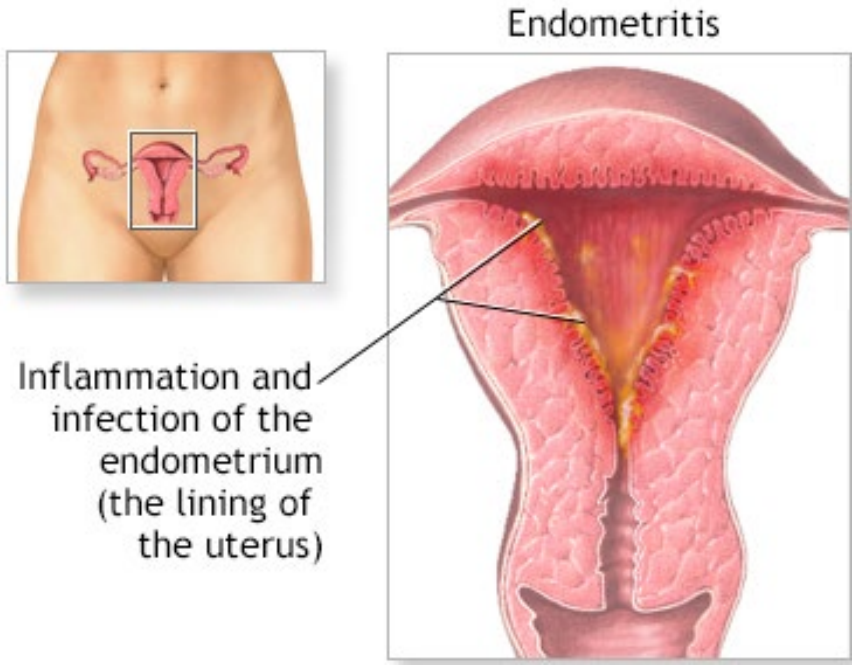
Epidemiology

Most common cause for post partum fevers

Most commonly a polymicrobial infection

Incidence: 1-3% w/o risk factors, 5-6% w/ risk factors



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RISK FACTORS

- Cesarean delivery/Operative vaginal birth
- Gestational Diabetes
- Prolonged labor/Prolonged rupture of membranes
- Internal fetal or uterine monitoring
- Large amount of meconium in amniotic fluid
- Manual removal of the placenta
- Post-term birth

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Clinical Features

Signs and Symptoms

- Fever
- Uterine tenderness
- Tachycardia that parallels the rise in temperature
- Midline lower abdominal pain

Diagnostic Criteria

Two of following features:

1. Fever (≥100.4˚F or 38˚C)
2. Pain or Tenderness (uterine or abdominal) with no other recognizable cause
3. Purulent drainage from uterus

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Differential Diagnosis

- Urinary tract infection/pyelonephritis
- Surgical Site Infection
- Unexplained fever after neuraxial anesthesia
- Pseudomembranous Colitis (C. Difficile)
- Aspiration Pneumonia

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Sepsis Alarm Findings

- Fever ≥103°F (39.4°C)

  OR

- Fever ≥102°F (38.9°C) plus one or more of the following:
  - Heart rate ≥110 beats/minute
  - Respiratory rate ≥20 respirations/minute
  - Manual white blood cell (WBC) differential showing ≥10 percent bands
  - Blood pressure ≤90/60 mmHg

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Oral Treatment

Most cases of endometritis develop within the first week after birth, about 15% present 1-6 weeks postpartum

For broad spectrum oral therapy:

- **Amoxicillin-clavulanate** 875 mg orally twice a day for 7 days.

In penicillin-allergic patients:

- **Clindamycin** 600 mg orally every six hours for 7 days

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IV Treatment

Group B Strep negative

- Clindamycin 900mg Q8H + Gentamicin 5mg/kg Q24H

Group B Strep positive or unknown

- Clindamycin + Gentamicin + Ampicillin 2g Q6H

  (Vancomycin in Penicillin allergies)

OR

- Ampicillin-Sulbactam 3g Q6H alone

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Duration of therapy

IV antibiotics are continued until:

- Clinically improved (no fundal tenderness) and
- Afebrile for 24 to 48 hours

24 - 48 HOURS

No need for additional oral antibiotic therapy

If persistent fever past 48hrs add Ampicillin to Clindamycin and Gentamicin regimen or switch to Ampicillin-Sulbactam

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Endometritis Prevention

Pre-operative Azithromycin 500mg in **Unplanned C-sections**

Pre-delivery Azithromycin for **vaginal** deliveries **NOT** recommended

Removal of placenta during cesarean **with cord traction** not manual removal

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Placenta Removal

Methods of delivering the placenta at caesarean section

Rose I Anorlu [1], Babalwa Maholwana, G Justus Hofmeyr

Affiliations + expand

PMID: 18646109 DOI: 10.1002/14651858.CD004737.pub2

Random effects model meta-analysis

- Manual removal of the placenta was associated with more endometritis
  - Relative risk 1.64; 4134 women, 13 trials
- Manual removal of placenta associated with >1000mL loss,
  - Relative risk 1.81; 872 women, two trials

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BONUS INFORMATION

Antibiotic Considerations for Breast Feeding Women

- Mastitis:
  - Low MRSA risk: Dicloxacillin or Cephalexin
  - MRSA/Beta-Lactam allergy: TMP-SMX (>1mo old) or Clindamycin
- UTI
  - Amoxicillin-Clavulanate or TMP-SMX (>1mo old)
- Acute Otitis Media/Bacterial Sinus Infection
  - Amoxicillin-Clavulanate or Cefdinir

Cautionary use:

- Tetracyclines, Doxycycline
- Nitrofurantoin (under 8 days of life or infants with G6PD)
- Metronidazole

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QUESTIONS?
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