CASE STUDIES IN CONTRACEPTIVE USE

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LEARNING OBJECTIVES

- Manage common bleeding disturbances related to contraceptive use
- Provide contraception to early adolescents
- Provide contraception to women over 45
- Evaluate a woman with missing IUD strings
SUBDERMAL IMPLANT

- What to expect
- How long should she “stick it out”
- How to treat unacceptable patterns
- Is it worth it?

BLEEDING PATTERNS ARE UNPREDICTABLE

US Data
n=330

**REVIEW OF IMPLANON BLEEDING**

- Data from 11 clinical trials ($N = 923$)
  - bleeding-spotting records
  - dysmenorrhea
  - discontinuation
- Bleeding patterns analyzed via reference period
  - amenorrhea (22.2%)
  - infrequent (33.6%)
  - frequent (6.7%)
  - prolonged bleeding (17.7%).
- In 75% of RPs, bleeding-spotting days ≤ natural cycle
  - occurred at unpredictable intervals


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**TRULY UNPREDICTABLE?**

- The bleeding pattern experienced during the initial phase predicted future patterns for the majority of women
- Pattern in first 3 months:
  - Favorable bleeding patterns tended to continue
  - Bad patterns ≥ 50% chance of improvement
  - 11.3% discontinued due to bleeding irregularities
  - 77% with dysmenorrhea: complete resolution

**DMPA**

- Typical patterns
- What happens after amenorrhea?
- Can you get to amenorrhea faster?
- New onset bleeding after amenorrhea

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**DMPA: IMPROVEMENT OVER TIME**

- **Month 1**
  - Almost all have bleeding
  - 50% have <8 days
  - 40% 11-30 days

- **Month 3**
  - 30% amenorrhea
  - 35% 11-30 days

- **Month 12**
  - 60% amenorrhea
  - 80% 1-7 days spotting
Assessment of tolerance of current pattern, and acceptable patterns

Resolution of current bleeding by Rx

Improvement in bleeding pattern long-term

### SUMMARY OF 23 CONTROLLED TRIALS

<table>
<thead>
<tr>
<th>Rx</th>
<th>Stop bleeding</th>
<th>Prolonged benefit</th>
<th>In users of: Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estrogen</td>
<td>++</td>
<td>+</td>
<td>Norplant, DMPA</td>
</tr>
<tr>
<td>COC</td>
<td>++</td>
<td>+</td>
<td>Norplant</td>
</tr>
<tr>
<td>NSAID Ibuprofen, mefenamic acid, valdecoxib</td>
<td>+</td>
<td>+</td>
<td>Norplant, DMPA No benefit of 80 mg ASA</td>
</tr>
<tr>
<td>Doxycycline</td>
<td>++</td>
<td>N/A</td>
<td>Implanon MMP inhibitor activity</td>
</tr>
<tr>
<td>Low-dose Mifepristone</td>
<td>+/--</td>
<td>+/--</td>
<td>Norplant Implanon</td>
</tr>
<tr>
<td>Others</td>
<td>+/--</td>
<td>+/--</td>
<td>Tamoxifen, Vit E, antifibrinolytic agent</td>
</tr>
</tbody>
</table>

### REPORTED BLEEDING TREATMENTS

- **Estrogen**
  - CEE (0.625, 1.25, 2.5) qd-qid x4-6 days
  - Ethinyl estradiol x 21 d
- **COC**
  - 1-2 months
- **NSAID**
  - Ibuprofen 800 mg tid x 3-5 days
  - Mefanamic acid 500 mg bid x 5 days
- **Doxycycline**
  - 100 mg po bid x 5 days
LNG-IUS

- 6 weeks, 4-6 months, 12 month patterns
- What happens then?
- Treatment of unacceptable patterns
  - How long to stick it out
- Does pre-treatment bleeding predict result?

US BLEEDING DATA: LNG-IUS
RP1: ± 40/90 days, prolonged episodes
- Gets better predictably, rapidly
- At 1 year, 20% amenorrhea, 10% monthly cycles
- Limited data yrs 4-5

- Amenorrhea
- Unscheduled bleeding
  - First 3 months
  - Subsequent
- What to expect with extended use
WHAT IS “EXTENDED CYCLE?”

- Decreased # of placebo days
  - 24/4
- Decreased number of placebo weeks
  - 84/7
- Continuous until BTB, then withdraw
  - variable
- Continuous

CU-T 380 IUD

- Is it really that bad?
- How much is too much?
- Unscheduled bleeding
  - Cervicitis
  - Chronic endometritis
  - CIN
  - pregnancy
WHAT REALLY HAPPENS TO BLEEDING?

<table>
<thead>
<tr>
<th></th>
<th>Pre-IUD</th>
<th>12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days of bleeding</td>
<td>4.8 ± 0.2</td>
<td>6.1 ± 0.3</td>
</tr>
<tr>
<td>Mean blood loss</td>
<td>59 ± 8 ml</td>
<td>92 ± 13 ml</td>
</tr>
<tr>
<td>Ferritin, Hgb</td>
<td>22, 13.1</td>
<td>20, 13.0</td>
</tr>
<tr>
<td>Painful menses</td>
<td>4/18</td>
<td>5/18</td>
</tr>
</tbody>
</table>

Milsom, I et al Contraception 1995

WHEN TO BE WORRIED?

- Pregnancy
- Cervicitis
- Endometritis
- Cervical neoplasia
- Endometrial neoplasia
THE EARLY ADOLESCENT

- 14 yo, sexually active with one partner
- On the pill, but misses frequently
- “I think I’m sterile”

OCS AND ADOLESCENTS

- Adherence
  - At 3 months of use: 45%
  - At 12 months of use: 33%
- Myths abound
  - Infertility
  - Heart attacks
  - Dangerous chemicals
  - Etc...

**DEPO-PROVERA AND BONE LOSS**

- BMD loss associated with DMPA is rapidly reversible
- Clinical implications of BMD changes in teenagers and young women are unknown
- Cochrane review: Whether steroidal contraceptives influence fracture risk cannot be determined from existing information
- Implanon does not seem to affect BMD

**IUDS FOR TEENS?**

- Literature is scanty and obsolete
- No increase in risk of
  - pelvic inflammatory disease
  - tubal infertility
  - ectopic pregnancies
- Safe and acceptable in nulliparas
- Higher failure rate?
- Higher expulsion rate?
USE OF LONG-ACTING CONTRACEPTIVES IN YOUNG ADOLESCENTS

- Are the patch or ring better than the pill?
  - Harder to forget to use
  - No difference if motivation wanes
- Make non-pregnant the default state
  - Etonogestrel implant
  - Levonorgestrel IUS

MISSING STRINGS

- 29 yo woman had an IUD placed at another clinic 4 months ago
- She was unable to feel her strings
- On your exam, you cannot see or feel the strings
**FIRST STEP:**
- Try to find the string in the cervical canal
  - Endocervical brush
  - Alligator forceps
- If unsuccessful your next step is...

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**UTERUS, ABDOMEN, OR SEWER SYSTEM?**

- **TVUS**
  - IUD in situ
  - No IUD
- **TVUS**
  - no IUD, +IUP
  - + IUD, +IUP
  - +/- IUD, no IUP
- **Pregnancy test**
- **TVUS**
  - No IUD
  - KUB post-partum
  - Remove if possible
  - Eval for ectopic

*start back-up BC*
CLINICAL PEARLS

- You MUST find the IUD
  - Never assume it fell out until you have evaluated the abdominal cavity
- Pregnancy outcomes are better with attempted removal than leaving it
  - If the IUD is below the pregnancy

HOW LONG TO CONTINUE OCPS

- 47 year old woman would like a refill on her Lo-Estrin 1/20 (EE 20mcg-norethindrone 1 mg)
- using for contraception
- appreciates the reduction in menstrual symptoms and acne.
- non-smoker, normal BMI
WHAT DO YOU DO?

1. Call in her refills
2. Call in a progestin-only pill
3. Ask her to make an appointment to discuss non-hormonal methods
4. Tell her to stop contraception as her fertility risk is less than the risk of the OCs
5. Check an FSH level

OVER 40 "NEW START"

- 47 yo woman whose ex-husband had a vasectomy, now in first post-divorce relationship, wants safe and highly effective method, used COCs in past
**PERIMENOPAUSAL CONTRACEPTION**

- Women >40 have the second highest proportion of unintended pregnancies
- No contraceptive method is contraindicated merely by age
- Consider co-morbidities
- Is surgery worth it?

**CONCERNS WITH INCREASING AGE AND OCS**

- Breast cancer
- Venous thromboembolism
- Arterial thrombosis
  - MI
  - Stroke
BENEFITS OF COCS IN PERIMENOPAUSE

- Many non-contraceptive benefits of OCPs
  - Predictable withdrawal bleed
  - Prevention of hyperplasia and cancer
  - Stabilized hormone levels prevent hot flashes
  - Slow bone loss
- Extended cycle/continuous OCPs
  - All of the above and,
  - Eliminate bleeding/dysmenorrhea and hormonal fluctuations

CLINICAL PEARLS

- In patients without compound risk factors OCPs are safe into menopause
- Beginning at age 50, check an FSH on placebo day 6-7 annually to evaluate when contraception can be stopped