Contraception Conundrums
Choosing the Right Method for the Right Patient
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No Disclosures

- We have no financial interest or other conflict of interest in relation to this program/presentation.

The Learner Will Be Able To

- Identify the optimal forms of contraception recommended for patients with certain chronic medical problems
- Summarize the evidence base for the recommendations made in #1
- Identify available resources to aid contraception selection in patients which chronic medical problems
Background

- 99% of sexually active women age 15-44 have used a contraceptive method other than natural family planning
  - 62% of reproductive aged women are using contraception
- Chronic disease is prevalent among reproductive aged women
  - 40% obesity, 32% HTN, 10% heart disease, 7.6% depression (all Americans)
- Important to select the right contraception in medically complex patients
  - To not worsen the condition
  - To prevent unwanted pregnancy (45% in the US)

Case 1

- 19 y/o P0 with juvenile epilepsy presents to clinic complaining of heavy menses and dysmenorrhea. She also has noticed that her seizures become more frequent right before menses. She is virginal, but has a serious boyfriend. No other PMH except epilepsy. She takes lamictal for seizure control. Which birth control method do you prescribe?

Epilepsy

- Neurologic condition characterized by multiple, unprovoked epileptic seizures
- 2.2 million Americans affected, half are women and girls
- 33% of women with epilepsy (WWE) have catamenial seizures
- Mainstay of treatment is antiepileptic drugs (AED)
Epilepsy and Contraception

• Contraception is critical in WWE
• WWE experience barriers to contraceptive care
• It is important as women’s health practitioners, that we choose the right contraceptive method for these patients

Combined Hormonal Contraception and Antiepileptic Drugs

• Combined hormonal contraception (CHC) can influence efficacy of antiepileptic drugs (AED’s)
• AED’s can influence efficacy of CHC
• CHC’s should be used with caution in WWE taking inducing AED’s

Other Contraceptive Methods and Antiepileptic Drugs

• Progestin only pills
• Progestin-only implant
• Copper and Levonorgestrel IUD’s
• Depot Medroxyprogesterone Acetate (DMPA)
What do I do with WWE on AED’s?

- Ask about medications
- If on an enzyme inducer AED, avoid CHC’s
- If on lamictal, consider adjusting dose if adding a CHC (or avoid CHC’s altogether)
- If catamenial seizures, suppress ovulation
- Best choice for case: depot medroxyprogesterone acetate

Case 2: Obesity

- 22 y/o P0 presents to clinic requesting to start contraception. She weighs 130 kg and has a BMI of 36.2. She denies any medical problems. Upon questioning, she also needs emergency contraception. She and her boyfriend of 1 yr were SA last night, and the condom broke.

Obesity

- Defined as a BMI ≥ 30 kg/m²
- Epidemic rates- 38.3% of all women in U. S. considered obese
- Obesity is risk factor for CV events including MI, stroke, and VTE
Obesity and Contraception

- COCs associated with 3-4 times increased risk of VTE
- Relative increase in risk with obesity, although unable to quantify absolute risk
- Major concern with obesity is potential for decreased efficacy of contraceptive methods

Obesity and Contraception

- Studies have shown the contraceptive patch to provide effective ovulation inhibition in obese women.
- Etonogestrel (ENG) levels independent of BMI through 3 years of ENG implant use
- CHCs are U.S. MEC category 2. All other methods are cat 1.
- Best method for this patient: LARC

Obesity and Emergency Contraception

- Failure rate of levonorgestrel (LNG) 1.5mg is 3% overall.
- Increase in failure rate with obese women
  - Failure rate of 5.8% with BMI >30
  - Failure rate of 2.5% with BMI 25-29.9
  - Failure rate of 1.3% with BMI <25
- Use of EC still recommended with additional counseling
Bariatric Surgery and Contraception

- Significant weight loss following surgery a/w increased fertility
- ACOG recommends preventing pregnancy x12-18 months post-op d/t associated fetal morbidity from rapid maternal weight loss
- Recommend methods that do not rely on GI absorption especially with malabsorptive procedures.

Case 3: Mental Illness

- 31 y/o P1011 presents to clinic to discuss contraceptive options. She is 6 months PP and just d/c'd breastfeeding. Her only PMH is depression, which she was diagnosed with several years ago. She takes Zoloft 100mg daily and is stable on this dosage, managed by her psychiatrist. She has used OCPs in the past but now is concerned about any potential effects on her mood. She declines LARCs at this time and she and her husband want to TTC in about 1 year. What is the best contraceptive for this patient?

Contraception and Mood Disorders

- Systematic review of CHCs found they:
  - Provide either no effect or beneficial effect on mood with low incidence of adverse effects
  - Less androgenic progestins may have fewer adverse effects on mood
  - Least effects with continuous CHC and non-oral dosing
  - Recent reviews show no association with depression and DMPA use
Contraception and Mood Effects

• Double-blind placebo-CRT shows small but stat sig mood side effects with combined oral contraceptives (COC). Positive mood effects were noted during premenstrual phase. No stat sig incidence of mood disorders related to COC use.
• Study looking at influence of depression and psychological stress in young women on d/c of OCPs. Showed increase in discontinuation of OCPs d/t perceived OCP side effects.

What is the best method for our case study patient?

• Contraceptive ring or patch
• Reassurance of low incidence of mood effects as well as US MEC category 1 for patients with depression, while also giving precautions if she does experience mood side effects.

Case 4: Hypertension

• 34 y/o P2002 with chronic HTN, presents to clinic for her 6 week post partum exam. She is breastfeeding, her mood is appropriate and she is well-supported at home. She desires to re-start a birth control pill for contraception, which is what she’s always used. HR 72, BP 145/90. Which birth control method do you prescribe?
Hypertension

- Blood pressure over 140/90
- Affects 32% of adult women
- Only half of reproductive age hypertensive women receive treatment
- Contraception is critical

Combined Hormonal Contraception and Hypertension

- Hormonal contraception directly impacts blood pressure
- Estrogen stimulates angiotensin production from liver and increases activation of the renin-angiotensin system
- CHC’s increase SBP and DBP by 8 and 6mmHg, respectively

Hypertension, CHC’s and CV Risk

- Increased risk of stroke, MI, CHF, heart arrhythmias and kidney disease
- Women with hypertension on CHC’s
  - 17x RR of MI (compared to CHC users without HTN)
  - 12x RR of MI (compared to non CHC users with HTN)
  - OR 8.8 of PAD (compared to normotensive CHC users)
  - OR 10.7 of Stroke (compared to CHC users without HTN)
- Dose of EE matters in HTN women taking CHC
Other Contraceptive Methods and Hypertension

Table 8.4: Summary: US medical eligibility criteria for contraceptive use in women with hypertension

<table>
<thead>
<tr>
<th>Blood pressure</th>
<th>CHC</th>
<th>POP</th>
<th>DMPA</th>
<th>Implant</th>
<th>LNG-IUS</th>
<th>Copper IUD</th>
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<td>Low-normal</td>
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<td>Pre-HTN (HTN-1)</td>
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<td>HTN-2</td>
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CHC = combined hormonal contraception, POP = progesterone-only pill, DMPA = deep medroxyprogesterone acetate, LNG-IUS = levonorgestrel intrauterine system, Copper IUD = copper intrauterine device.

What do I do with HTN Women Who Need Contraception?

- Measure BP in HTN women before starting CHC’s.
- If BP is severely elevated, must prescribe alternative method.
- If mild BP or adequately controlled, consider alternative method (category 3 on MEC).
- Best choice for this case: a progesterone only option.
Summary

- Contraception is critical for all women, especially women with chronic disease
- Important to choose the right method for the right patient
- Use the CDC’s Medical Eligibility Criteria (MEC) Resource

Resources

  doi:10.1089/jwh.2016.5854
- Cardiovascular disease and use of oral and injectable progestogen-only contraceptives and combined oral
  contraceptives: Results of an international, multicenter, case-control study. World Health Organization Collaborative Study
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- Cardiovascular disease and use of oral and injectable progestogen-only contraceptives and combined injectable
  contraceptives. Results of an international, multicenter, case-control study. World Health Organization Collaborative Study
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Westoff, C. L., Reinecke, I., Bangerter, K., & Merz, M. (2014). Impact of body mass index on suppression of follicular development and ovulation using a transdermal patch containing 0.15 mg ethinyl estradiol/3.0 mg gestodene: a multicenter, open-label, uncontrolled study over three treatment cycles. *Contraception, 90*(3), 272-279. doi:10.1016/j.contraception.2014.04.018
