

## **ORAL CONTRACEPTION**

### **Medicine clinic small talk 10/27/08**

1. Public Health questions regarding contraception: (T or F)
  - a) Every dollar spent on family planning saves \$2 in prenatal + neonatal care
  - b) One half of all pregnancies are unplanned
  - c) Contraception should be addressed by the MD with women of childbearing age
  - d) A prior hx of OCP use causes an increased risk of HTN (Nurses Health Study)
  
2. Benefits of OCPs outweigh the cardiovascular risk associated with their use in most cases; however (T or F),
  - a) After cessation of therapy, normalization of BP may take up to 12 months
  - b) Risks are greater for women age > 35, and those who smoke
  - c) There is no increased risk of ischemic stroke, myocardial infarction (thrombotic) in users relative to non users
  
3. A 26 yo with hirsutism is being treated with OCPs. Mechanisms of action of the OCPs in this setting include: (T or F)
  - a) Inhibition of the LH surge
  - b) Decrease in hepatic SHBG production (hint)
  - c) Increase in bound testosterone
  - d) Inhibition of the conversion of testosterone to dihydrotestosterone
  
4. Which are the preferable progestins to be using in a woman with hirsutism?
  - a) Ethynodiol
  - b) Desogestrel
  - c) Drospirenone
  - d) Levonorgestrel (hint: androgenic)
  
5. Uses of OCPs include:
  - a) Contraception
  - b) Dysmenorrhea
  - c) Menorrhagia
  - d) Fibromyalgia
  
6. Describe the management of:
  - a) Break through bleeding
  - b) Amenorrhea
  - c) Breast tenderness
  
7. Contraindications to depot medroxyprogesterone acetate include: (T or F)
  - a) current pregnancy
  - b) breast cancer
  - c) undiagnosed vaginal bleeding
  
8. What are increased risks for thrombosis with OCPs?
  - a) Obesity
  - b) Factor V Leiden mutation
  - c) 3<sup>rd</sup> generation progestin (possible)
  - d) Lupus
  
9. Do OCPs increase the risk of?
  - a) Breast cancer with BRCA1 mutation (hint: increased propensity)
  - b) Breast cancer without BRCA1 mutation
  - c) Ovarian cancer
  - d) Endometrial cancer

10. Contraindications to OCPs include:
- Headache
  - Migraine with focal symptoms or if pt is over 35 years of age
  - Pseudotumor cerebri (idiopathic intracranial hypertension)
  - Active liver disease
  - Undiagnosed uterine bleeding
11. A 28 yo with Type 1 diabetes/ nephropathy/sickle cell disease has unprotected intercourse and wants post coital contraception.
- What should she do?
  - What are the contraindications to this therapy?
  - How soon should this be taken?
  - What might alter its efficacy? Think how this stuff is metabolized in the liver.
12. 25 yo with seizure disorder on tegretol wants OCPs. What do you advise?
13. Drospirenone is a progestin (non androgenic) analogous to spironolactone. What should we be concerned about with this progestin?
14. When should OCPs be discontinued?
- HTN over 35
  - Smoker over 35
  - Age over 40
  - Diabetes with nephropathy

Answers:

- a is F (each dollar spent saves \$3.80), the rest are true
- c is F the rest are true
- b is F (estrogens increase SHBG)
- levonorgestrel is the most androgenic progestin of the group. Use the others in with hirsutism. **Always pick the lowest estrogen dose tolerable in any patient.**
- d is F
- a) continue use for 2-3 cycles, may add supplemental estrace 1 mg daily for a few weeks; if persists, evaluate for pathology (fibroid or polyp) Try an extended regimen or switch levonorgestrel to norethindrone. See chart:

Table 1. FDA-Approved Extended and Continuous Regimens

Brand Name	Manufacturer	Estrogen Dose	Progestin Dose	Regimen
Seasonale	Barr Laboratories, Inc (Pomona, NY)	30 micrograms of EE	150 micrograms of LNG	Continuous 84 active pills/7 placebo pills
Seasonique	Barr Laboratories, Inc (Pomona, NY)	30 micrograms of EE	150 micrograms of LNG	Continuous 84 active pills/7 pills, 10 micrograms of EE
Lybrel	Wyeth Pharmaceuticals Inc. (Philadelphia, PA)	20 micrograms of EE	90 micrograms of LNG	Continuous LNG/EE
Yaz	Bayer Schering Pharma AG (Leverkusen, Germany)	20 micrograms of EE	3 mg of DRSP	Extended 24 active pills/4 placebo pills
Loestrin 24 Fe	Warner Chilcott, Inc. (Rockaway, NJ)	20 micrograms of EE	1 mg of NET	Extended 24 active pills/4 placebo pills

EE, ethinyl estradiol; LNG, levonorgestrel; DRSP, drospirenone; NET, norethindrone.

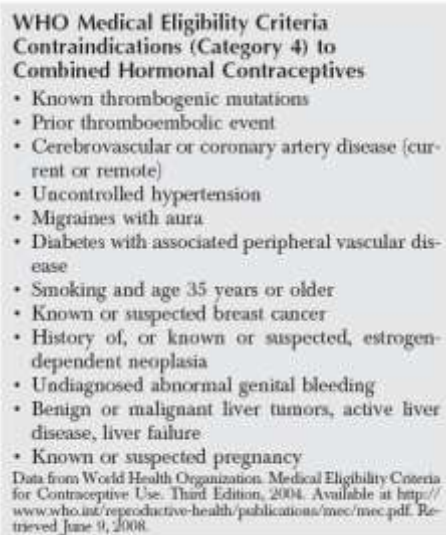
- check pregnancy test; supplement with estrace for a cycle or two; if post pill amenorrhea persists > 6 months, evaluate with TSH, Prolactin and progesterone withdrawal
- should decrease over time

7. all are T.

8. all T; further, obesity increases the risk of OCP failure- consider IUD

9. a) Breast cancer with BRCA1 mutation Y; but OCPs are used by some to decrease the high risk of ovarian cancer in this setting  
b) Breast cancer without BRCA1 mutation N  
c) Ovarian cancer N  
d) Endometrial cancer N

10. b through e are T



11. a) What should she do? 1.5 mg levonorgestrel  
b) What are the contraindications to this therapy? none  
c) How soon should this be taken? ASAP; up to 120 hours (reduced efficacy)  
d) What might alter its efficacy? Think how this stuff is metabolized  
anticonvulsants (some recommend 0.75 mg every 12 hours for 3 doses in this setting)

12. reduced efficacy with phenobarb, dilantin, tegretol (ok with gabapentin, lamitrogine, levetiracetam, tiagabine) Rifampin is the antibiotic to worry about. Recommend IUD or depo progestin  
A higher estrogen dose could be used in this setting; however, this will increase the risk for thromboembolism

13. hyperkalemia; caution if patient on ACEi/ARB/ renal disease

14. all T except c

