Contraception

Pregnancy in Voice- An Update

- To date, 22 pregnancies in 1500 enrolled participants

- What number of these occurred while on combined oral contraceptives (C0Cs)?
  - 22
  - 19
  - 16
  - 11

Two Most Common Methods

- Combined Oral Contraceptives
- Injectables (medroxyprogesterone acetate)

Outline

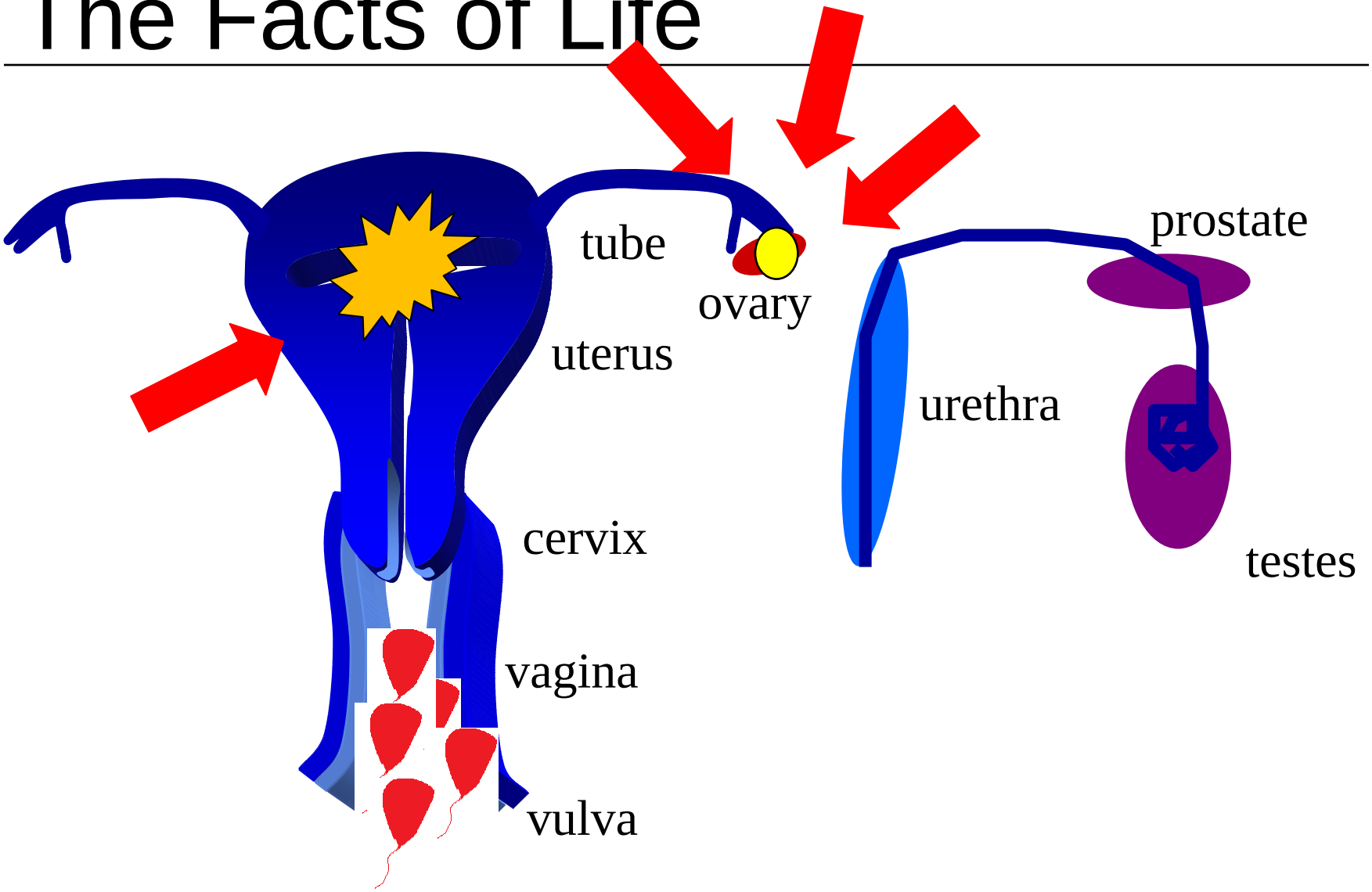
- Key points of comparison
- Choosing a contraceptive
- Initiating a contraceptive
- Continuing a contraceptive
- Avoiding contraceptive failure

OCPs vs Injectable

Mechanism of Action

The Facts of Life

The Facts of Life



COC vs Injectable: MOA

- DMPA
  - Inhibits ovulation at the level of the hypothalamus by inhibiting GnRH pulsatility
  - Thickens and decreases quality of cervical mucus
  - Alters the endometrium
- COCs
  - Suppression of ovulation
  - Thickening of cervical mucus

OCPs vs Injectable: Estrogen

- Injectables contain only progesterone
- All COCs contain an estrogen and progestin
  - Progestins provide the majority of the pill's contractive activity
  - Estrogens enhance cycle control

OCPs vs Injectable: Effectiveness

- DMPA
  - Perfect use: 0.3%
  - Typical use: 3%
- COCs
  - Perfect use = 0.3%
  - Typical use= 8%
    - 1 in 12 will become pregnant in the first year of typical COC use

Choosing a contraceptive

Case One

- A 23 yo woman presents for screening. She has two children and agrees to delay child bearing for 2 years but would like to have a child soon after the study is over. She has heard that contraceptives may make her infertile.
- How might you counsel her regarding
  - Participation in the study
  - Choice of contraceptive

Return to Fertility

- Neither cause long-term loss of fertility
- However, with DMPA ovulation may not return until 9-10 months after the last dose
- After discontinuing DMPA, women may have a 6-12 months delay in return of fertility
- With OCPs, ovulation takes on average 2 1-3 months to return

Case Two

- A 36 yo woman presents for screening. She is obese and smokes. She agrees to use contraception for 2 years.
- How would you counsel her regarding OCP vs. DMPA use?

COC: Thrombotic Event

- Include myocardial infarction and ischemic stroke
- Due to estrogen's hyper coaguable status
- Risk increases with weight, age, smoking, and baseline hypertension
- Also increased in women with migraines with aura

COC: Venous Thromboembolism

- Risk factors include obesity, immobilization, and previous venous compromise
- Age and obesity increases risk

COC: Venous Thromboembolism

- Estimates of venous thrombosis

Population	Rate	Relative Risk
Young women	4-5	1
on COC >50mcg EE	24-60	6-10
on COC <50mcg EE	12-20	3-4
Pregnant women	48-60	12

***per 100,000 women years

Case Three

- A 28 yo mother of 3 presents for screening and agrees to use a contraceptive. Her friend gained 20kgs on DMPA so she knows for certain that she doesn't want to use that method!
- What can you tell her about weight gain and OCPs vs. DMPA?

DMPA: Weight Gain

- Inconsistent results
  - Brazilian women: an average of 4kg
  - Chinese women: no weight gain over one year
  - US teens: an average of 4kg in the first year
- Randomized trial of Depo vs placebo in normal weight women
  - Measured food intake, energy expenditure and weigt gain over 3 months
  - No difference
- Women with a higher baseline weight may gain more weight on DMPA
- In the US, black adolescents may gain more than white adolescents
- Due to increased fat deposition, not water weight

COC: Weight

- Three placebo-controlled, randomized clinical trials have demonstrated that women do no experience weight gain due to low dose COC use.

Initiating a contraceptive

Case Four

- A 29 yo presents for screening part 1. She has irregular menses occurring once every 3-4 months. She is excited to use OCPs so that she might experience regular cycles. You have only 56 days left in her screening period.
- When will you tell her to start the OCPs?

Starting OCPs

- Sunday start
  - Used to be the most common method for starting
  - Menses should occur during the work week
  - First active pill on the first Sunday of their menses
  - If menses start more than 5 days before starting the pill, backup method needed for 7 days
- First day start
  - Start pills on the first day of the next menses
  - Important that the menses is normal
  - If unclear, rule out pregnancy
  - No backup methods necessary

Starting OCPs

- Quick Start
  - Start the pack ON THE DAY of the visit provided you are reasonably certain she is not pregnant
  - If she needs emergency contraception, take it on the day of the visit, start the pills the next day
  - Use backup for 7 days.
  - Menses will be delayed
  - Preferred because other approaches leave a time gap between the time the ppt is prescribed pills and the time she is to start taking them

Continuing a contraceptive

Case Five

- A 29 yo woman randomized to oral product presents to her Month 14 visit. She has been OCPs since Screening Part 2. She is generally happy with OCPs but reports monthly grade 2 headaches during the placebo week of her pack. She is considering a switch to DMPA
- How would you counsel her?

Placebo Week Problems

- Continuous cycling is a theoretical option
  - Cost and supply may be a factor
- Important to discuss the likelihood of break through bleeding

Case Six

- A 29 yo woman randomized to oral product presents to her Month 3 visit. She agreed to start DMPA at Screening Part 2 and is now due for her next injection. She tells you that she wants to switch methods because the irregular vaginal spotting. It is driving her crazy!
- How would you counsel her?

DMPA: Menstrual Cycle Abnormalities

- Bleeding patterns are unpredictable
  - The majority of women experience infrequent but prolonged episodes of bleeding or spotting
  - Many women experience an increase number of days of light bleeding or amenorrhea
  - Rarely, do women experience an increased number of days of heavy bleeding

DMPA: Menstrual Cycle Abnormalities

- Irregular bleeding is associated with an increased fragility of endometrial capillaries

DMPA: Menstrual Cycle Abnormalities

- Amenorrhea
  - Becomes more common over time
    - At one year: 40-50% of women
    - At five years: 80% of women

DMPA: Menstrual Cycle Abnormalities

- The MAIN reason for DMPA discontinuation
- What to do??????
  - Inform women in advance
  - Temporary symptomatic relief:
    - Combined oral contraceptives for 1+ cycles
    - Exogenous estrogen
    - Non-steroidal antiinflammatory
  - TEMPORARY symptomatic relief !!!!!!
    - When these interventions are discontinued, irregular bleeding patterns resume.

MTN
microbicide trials network

DMPA: Counseling

- Importance of detailed counseling
- Canto et al.
  - 350 women randomized to detailed counseling pre treatment and at each injection visit vs routine counseling
  - At 12 months: 8% vs 32%
  - Total discontinuation rates: 17% vs 32%
- Simply encouraging women to come in for a visit if they are having problems can improve continuation rates (Hubacher et al)

Avoiding Failure with OCPs

Avoiding Failure

- With low dose pill formulations (20mcg EE), the 7 day pill free interval may allow too much time for follicular development
- Trend towards decreasing placebo pills in the pack
- Emphasize starting the next pack on time!

Goals for Communicating-Efficacy

- What matters most is correct and consistent use
- Methods that protect a person for long time and not require daily or coital adherence tend to be associate with lower pregnancy rates
- Emergency contraception provides a last chance to prevent pregnancy
- Using two methods at once dramatically lower the risk of unintended pregnancy

Goals for Communicating-Safety

- Try to educate about misconceptions
- Make sure your staff know about all major side effects
- Tell patients what they need to know (even if they don't ask)
- Compare risk of using contraception with risk of pregnancy