POTION OR POISON?

MEDICAL TREATMENT
ALTERNATIVES TO THE PILL
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“THE PILL”

- Released to US market in 1960
- 10-15 x dose of hormones in HRT
- Over 10-14 million women use
- Works by blocking ovulation, affecting mucus for sperm migration, and endometrial thinning → abortifacient effect
Pill “Conditions”

- Irregular bleeding
- Pain
- Endometriosis
- Polycystic Ovary Syndrome
- Acne
- Hirsutism
- Ovarian Cysts
- PMS
- Convenience
Pill Use

- Primary: as contraceptive-prevent life
- Alternative: natural family planning which uses natural physiologic markers to determine fertile time and then appropriately use to postpone or achieve pregnancy; no side effects; 98-99% effective; easy to learn; consistent with Catholic church teaching; enhances marriage; promotes love and life.
Normal Ovarian Cycle

Phase 1: Follicular phase - estrogen dominant and prepares follicle for release and thickens endometrium; release of mucus

Phase 2: Ovulation - release of egg, development of corpus luteum

Phase 3: Luteal phase - progesterone dominant, elevation of temperature
Menstrual Cycle

- Day 1 is first day of bright red vaginal bleeding
- Cycles vary normally 21-35 days
- Some are anovulatory
- Usual length 3-7 days
- More variable in teens and perimenopause
- Regulated by feedback between ovary and pituitary, both positive and negative
Cooperative Progesterone Tx

- Progesterone vaginal capsules: 400-800 mg q hs q p+3-p+12; day 16-25 (does not interfere with charting)
- Crinone 8% (progesterone vag gel) — one applicator q hs pv pz=3-p+12; day 16-25
- Prometrium 200 mg (micronized progesterone) 1 caps q hs day 16-25
- Other progestins, e.g. norithindrone
Pathologies to Consider

- Polycystic Ovary Syndrome
- Dysfunctional Uterine Bleeding
- Hirsutism
- Ovarian Cysts
- Dysmenorrhea
Polycystic Ovary Syndrome

- Hyperandrogenism
- Chronic Anovulation
- Insulin Resistance
- Must rule out adrenal hyperplasia, ↑ prolactin, androgen secreting tumor
- Unknown etiology, may be inborn error of metabolism
Insulin Resistance

- Leads to DM - 2-5 X risk
- Leads to obesity
- Leads to infertility
- Leads to ↑ cholesterol
- Leads to ↑ risk endometrial Cancer
Diagnosis PCOS

- Abnormal FSH/LH ratio
- Abnormal androgens; test total and free testosterone, DHEAS, TSH, Prolactin
- Fasting blood sugar, 2 hr GTT (75 gm), insulin levels
- 17 alpha OH progesterone
- US ovaries (not very reliable)
- Lipid profile
Treatment of PCOS

Metformin: lowers insulin levels
reduces androgen levels
↑ SHBG
helps restore regular cycles
increases effectiveness clomid
1500-2000 mg/day ↑ doses
Treatment of PCOS

- Pill: suppresses ovary, ovulation, creates pseudo pregnancy, ↑ lipids, ↓ SHBG ↓ androgens, regulates cycles

There are no double-blinded placebo studies documenting superiority of treatment with pill, other than symptoms. No comparative studies.
Alternative Therapy

- Could cycle menses with cooperative progestin therapy; no down side
- Could treat hirsutism with topical creams, spironolactone, removal tx (laser)
- Could treat obesity with diet, exercise, lifestyle changes
- Infertility responds well to clomid
HIRSUTISM

- Idiopathic (no androgen excess)
- PCOS (common in about 50%)
- Congenital adrenal hyperplasia
- Cushing’s syndrome
- Androgen secreting tumors
- Ethnicity
Evaluation

- Hx, physical exam, ethnic background
- Total and free testosterone
- DHEAS, Androstenedione
- Fasting 17 OH Progesterone
- TSH, Prolactin
Treatment

- Shaving, plucking, waxing, electrolysis
- Laser - permanent but expensive
- Vaniqua (temp. dihydrotestosterone antagonist)
- Spironolactone (200 mg /day)
- Pill – not always successful
- Finasteride( 1-5 mg/day)
- Flutamide (250 mg/day)
Dysfunctional Uterine Bleeding

- Menses erratic, variable to \( \leq 21 \) days or \( \geq 35 \) days and sometimes lasting longer than 7 days and heavy with clotting.
- End of cycle brown discharge
- Heavier than pad q 2 hrs (saturated)
- Mid cycle bleeding
- Anemia
- Obesity (conversion of androgens to estrogens)
DUB TYPES

- Ovulatory: more common but with luteal phase deficiency - cycles usually shorter
- Anovulatory: less common with usually longer cycles
- Must rule out all other pathology - pregnancy, cancer, fibroids, polyps, infections, foreign body (IUD), coagulopathy, thyroid disease
- ? Tubal ligation syndrome
Evaluation

CBC, platelets, PT, PTT, Factor V Leiden
HCG, TSH, Prolactin,
Endometrial biopsy
Ultrasound
Pap
Cultures
Physical exam and History
Treatment

- NSAID’s
- Cooperative progesterone therapy
- Vitamins and Iron/Folate
- Exercise
- Acute bleeding - IV estrogen, 25 mg/4-6h
- Fluids, rest
- Endometrial ablation
- Progesterone (esp. norithindrone acetate)
- CAM - Magnesium, Chlorophyll, Cayenne
Goals of Treatment

- Relieve/alleviate acute bleeding
- Prevent further episodes of non-cyclic bleeding → anemia
- Decrease pt’s long term risk of complications from anovulation, i.e. endometrial Cancer
- Improve overall quality of life
Ovarian Cysts

- Usually benign, self-limiting
- Normal physiologic could be pathologic
- 200,000 hospitalizations annually
- Usually <5 cm = physiologic; >5 cm possibly pathologic
- Types: simple, complex, hemorrhagic, dermoid, neoplasm
Symptoms

- Pain, acute onset - rupture
- Ovulatory- mittelschmerz
- May mimic acute AP, IBS, IC, Endo
- May be recurrent
Treatment

- Oral progesterone - needs high doses
- IM progesterone in oil - 200 mg IM
- Analgesics, rest, heat
- Rarely laparoscopy
- Usually resolves within 3 cycles
- May be recurrent
- Could consider Lupron – chronic recurrence
Dysmenorrhea

- Painful menses with normal anatomy
- Lasts 1-3 days
- Severe in 15% adolescents
- Types: primary - physiologic-no other cause
- secondary - other pathologies, e.g. endometriosis, adenomyosis, dub/clots, cervical stenosis (post LEEP/cryo)
Differential Diagnosis

- Irritable bowel syndrome
- Interstitial cystitis
- Endometriosis/adenomyosis
- Psychogenic - sexual abuse
- Chronic PID
Treatment

- NSAID’s
- Heat
- Exercise-aerobic- $\uparrow \beta$ endorphins
- Magnesium- 800-1000 mg/day
- Pain management
- Laparoscopy- Rule out other etiol.
Endometriosis

- Diagnosis by laparoscopy only
- Present in 33% ♀ with chronic pelvic pain
- Occurs in 7-13% population
- 38% infertile women
Etiology

- Unknown
- Retrograde menstruation
- Hematologic/lymphatic spread
- Is an estrogen dependent disease
Symptoms

- Secondary dysmenorrhea
- Chronic pelvic pain
- Dyspareunia
- Many asymptomatic
Treatment

- Medical: progestins, danocrine, GnRh agonists, pill
- Surgical: resection, cautery, laser, ablation
- Tx of choice = Lupron (poss. Add back); greater than 12 mos → reversible bone loss
Summary

- Many female reproductive dysfunctions currently treated by pill without appropriate scientific evidence that pill improves pathology; it just improves symptoms.

- Symptom improvement not a bad thing

- ........BUT, benefit must outweigh risk
Pill Side Effects

- Increased risk of blood clots
- Increased risk of phlebitis
- Increased risk of breast cancer
- Increased risk of heart attack, stroke
- Increased risk of liver tumors
- Increased risk of abnormal lipids
- Not physiologic; suppresses nl function, creates state of pseudo-pregnancy
Summary

- There ARE other methods of treatment
- Contraception is intrinsically evil
- One cannot do an evil to achieve a good
- IF one thinks pill is BEST tx for an individual, must look at circumstances re: sexual activity, abstinence, etc.
- Principle of double effect
- PRIMUM NON NON NOCERE