Infertility

Prevalence in Developed Countries 3.5- 16.7 % and in Underdeveloped Countries 6.9-9.3%, with 56 % seeking care in developed countries but 51% in underdeveloped countries.

Can We Do Better At Preventing This Tragedy?

Preventative Strategies

- Educate young girls to be independent thinkers who have respect for themselves.
- Educate young girls regarding “plannin” and abstinence to decrease the risk of STD contribution.
- Treat dysmenorrhea/menorrhagia aggressively in the event that endometriosis is a contributing factor.
- ? Limit IUD use in nulliparous women, is controversial.

Pertinent Historical OB-GYN Information

- Age, Gravida/Para
  - Above age 35 fecundity and IVF success decrease
  - Previous child bearing carries a better prognosis
  - Has the partner had other children?

- Menstrual History
  - Menarche- If primary amenorrhea, that is a topic for the next visit☺
  - Morbidity
    - Menorrhagia-
      - usually requires a PUS for EM evaluation
      - Check for other underlying bleeding conditions
    - Dysmenorrhea- usually requires PUS for adnexal assessment
    - Intermenstrual Bleeding- same as for menorrhagia, unless postcoital

- Past Gyn History
  - Dyspareunia- where, how often and since when. PUS. How are the bowels?
  - STD/PID/vaginal discharge
  - Abnormal Pap smear
  - Hx of abnormal pap smear/cone biopsy LEEP/Abortion
  - Frequency and timing of Coitus
  - Using any non-water soluble lubricants or douches?

PERTINENT NON-GYN HISTORICAL INFORMATION

- Past Medical History
  - Cephalgia
  - Galactorrhea
  - Thyroid dysfunction
  - Hirsutism
  - Previous Surgeries, esp. in pelvis (appy, cyst, etc)
  - Medications
    - Antidepressants– decrease libido, ovulatory dysfunction, weight gain
    - Over the counter "fertility boosters"
    - Antihypertensives-certain can cause sexual dysfunction
  - Social History of Drugs and Alcohol, Smoking

Top Four Questions- Before the Expensive Work- Up

1. How Long Have you Been Trying to Conceive?
   - Generally infertility work up doesn't start for one year, but if couples are older and haven't been married long, give them the information below and try for 3 months. If no conception, call back.

2. Are the menses regular (q 21-40 days)?
   - If yes, how long are her cycles and how long does she bleed?
     - If <26 days, could there be a luteal phase deficiency of progesterone (very controversial)
     - If >10 days of bleeding or >7 days of heavy bleeding---PUS
   - If no, there is ovulatory dysfunction as a contributing factor
     - What is the BMI? Women need to have certain % body fat in order to ovulate. Too much or too little will result in an- or oligo-ovulation.
       - If BMI>30, diet and exercise to help them lose weight and prevent perinatal morbidity and mortality once she conceives
       - ? Will metformin help with ovulatory dysfunction
       - Clomiphene/Femara

TOP FOUR QUESTIONS (continued)

2. How Often and When are you having sex?
   - It only takes one sexual encounter to conceive, but the timing is everything. If the number of sexual encounters is low…
     - Any hx of sexual abuse for either partner?
     - Start coitus cycle day 9/10 and repeat every other day until 10 days before the expected menses.
     - Or buy an ovulation predictor kit and have sex the day the ovulation kit turns +
     - The Ova lasts 24 hours and the sperm usually last 3-4 days but could last up to one week, so its important to have sex the day before ovulation if possible.

TOP FOUR QUESTIONS (continued)

3. What kind of preparations have been made for your conception?
   - Folate should be started 2 months prior to conception to decrease miscarriage and NTD
   - Varicella, Rubella and ?Zika immunity established
     - If VZ and rubella nonimmune- vaccinate
     - If Zika non-immune educate re: preventative strategies and consequences of perinatal infection
   - BMI should be >20 and less than 30 for optimal perinatal outcome. Diet and exercise
   - Evaluate current medications for safety in pregnancy

"Poor Man's Infertility Work up" What to do for Couples without a Lot of Money to Spend on Infertility

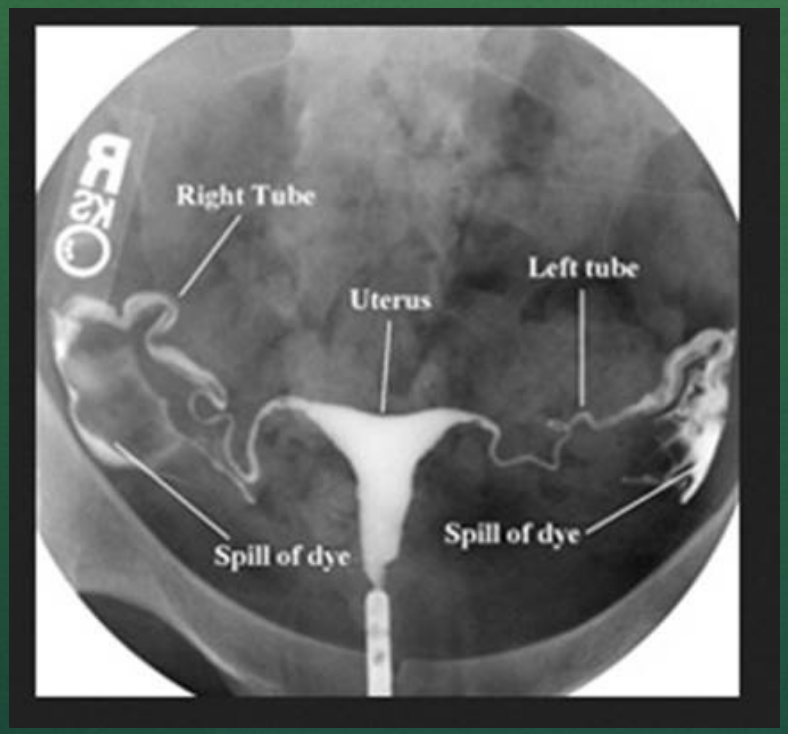
1. Female Factors:
   - Ovulation- if the periods are regular, generally the woman is ovulating, the only question is when
     - Checking cervical mucous mid-cycle- not easy and relatively nonspecific
     - Ovulation Predictor Kits
     - Follow through one cycle to see the ovulatory follicle mature to 3 cm and then be sure that the follicle ruptures at the time that the above measures predicted.
   - Tubal Patency
     - Sonohysterogram- check the cul de sac by ultrasound near the end of the menses. There should be minimal if any fluid. With a balloon catheter or pipelle biopsy catheter inject approxiately 5 cc into the EM cavity and then recheck the cul de sac. There should be fluid there if there is one tube open (which is all we would need for conception, in theory.

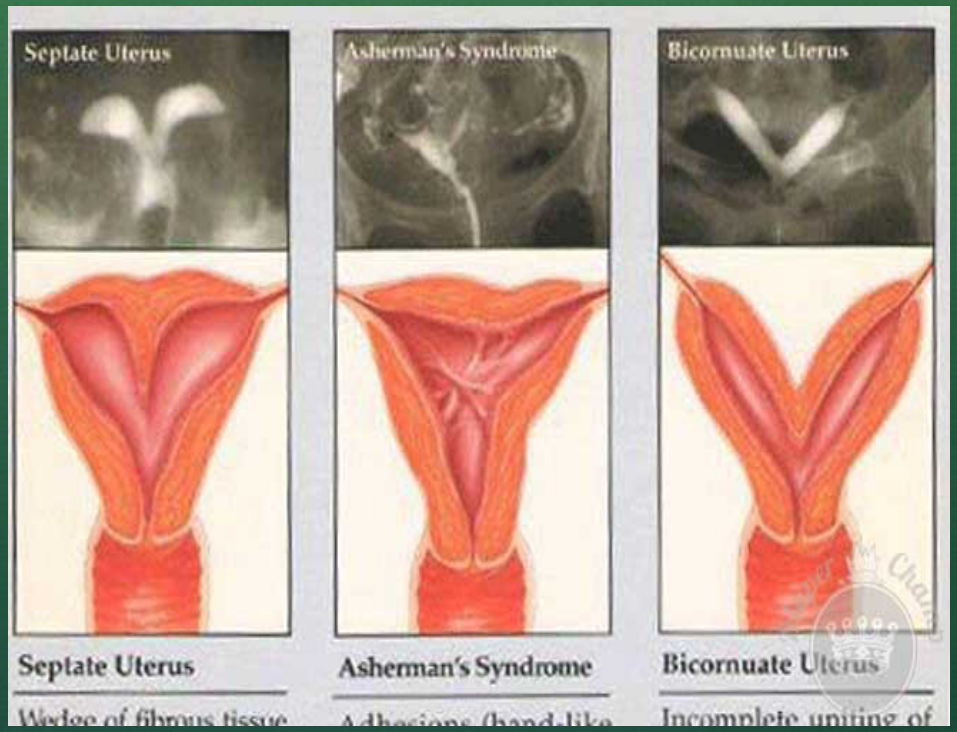
"Poor Man's Infertility Work up" What to do for Couples without a Lot of Money to Spend on Infertility

2. Male Factor Evaluation-
   - Have the SO ejaculate into a cup. Keep warm and bring directly to the hospital within 30 minutes of ejaculation.
     - Need at least 10/HFP that are moving more than with #+ motility across the visual field.
     - There should be very few abnormal forms (without kinked tails, etc)
   - Have the patient check for ovulation. Once ovulatory, have the couple have sex within 24 hours of coming in for her office visit. Use a 1 cc syringe or equivalent to draw some mucous from the endocervix
     - There would be less sperm seen but they should still be 3+ motile

Further More "Money Work" Up

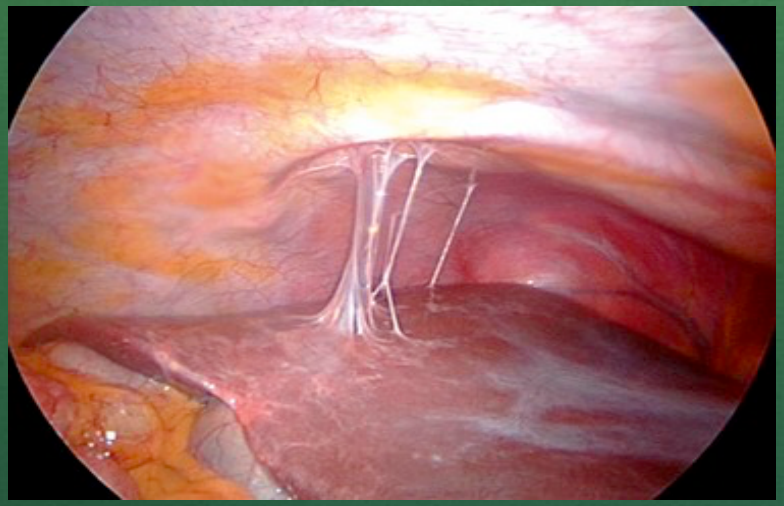
- Hysterosalpingogram- Xray requires fluoroscopy

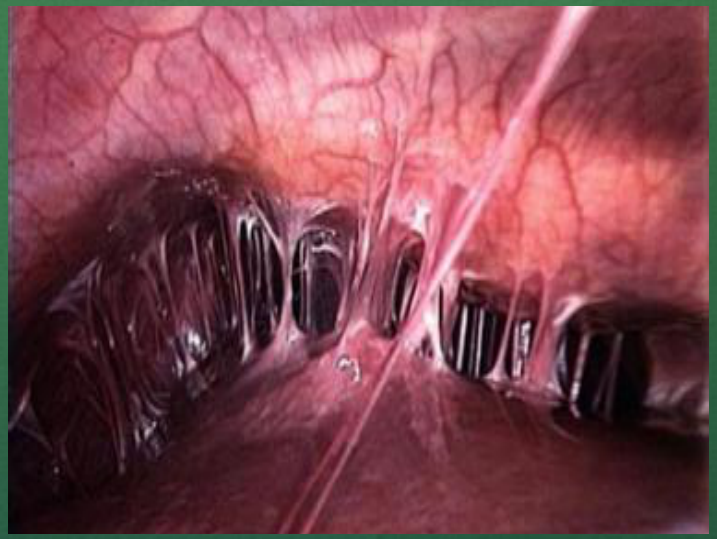




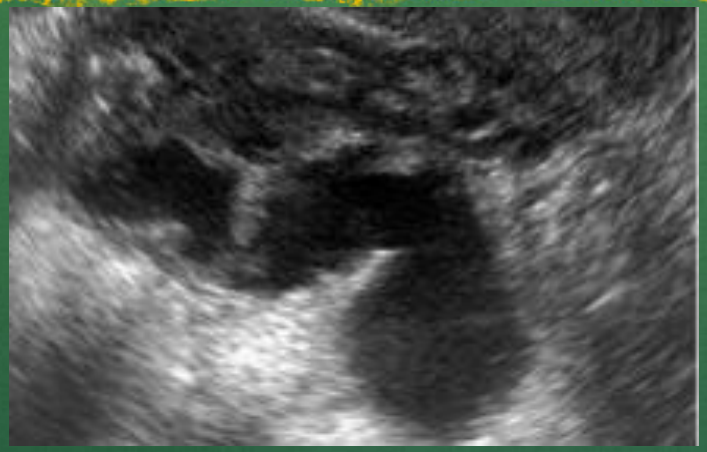
Fitz- Hugh Curtis

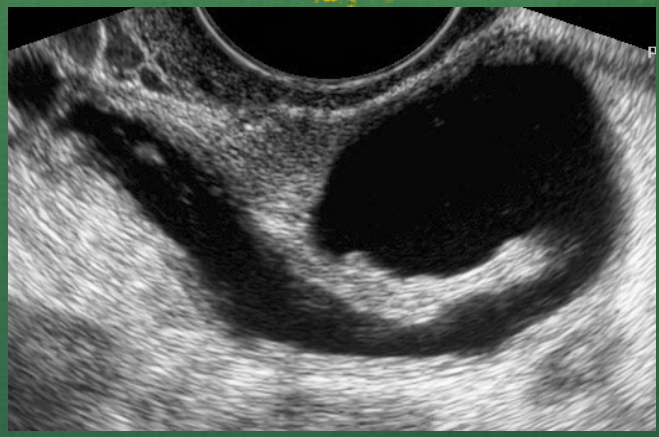
Violin String Adhesions from Healed Perihepatitis





Peritubal Chlamydial Adhesions/Hydrosalpinx by Ultrasound, HSG and Laparoscopy





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