Contraception 2018

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Contraceptive Choice Issues

• Side effects i.e., uterine bleeding
• Efficacy
• Convenience
• Reversibility
• Affordability
• STD protection

Failure Rate First Year of Use

<table>
<thead>
<tr>
<th>Method</th>
<th>Theoretical</th>
<th>Typical</th>
</tr>
</thead>
<tbody>
<tr>
<td>No method</td>
<td>85%</td>
<td>85%</td>
</tr>
<tr>
<td>Combination Pill</td>
<td>0.1%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Progestin only Pill</td>
<td>0.5%</td>
<td>3.0%</td>
</tr>
<tr>
<td>IUD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Progestin IUD</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Cu IUD</td>
<td>0.6%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Implanon</td>
<td>0.05%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Depo Provera</td>
<td>0.3%</td>
<td>0.3%</td>
</tr>
</tbody>
</table>
### Failure Rate First Year

<table>
<thead>
<tr>
<th>Method</th>
<th>Theoretical</th>
<th>Typical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tubal ligation</td>
<td>0.05%</td>
<td>0.05%</td>
</tr>
<tr>
<td>Vasectomy</td>
<td>0.1%</td>
<td>0.15%</td>
</tr>
<tr>
<td>Spermicide's</td>
<td>6.0%</td>
<td>25.7%</td>
</tr>
<tr>
<td>Cervical Cap</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parous</td>
<td>20.0%</td>
<td>40.0%</td>
</tr>
<tr>
<td>Nonparous</td>
<td>9.0%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Diaphragm with spermicide</td>
<td>6.0%</td>
<td>12.1%</td>
</tr>
<tr>
<td>Condom</td>
<td>3.0%</td>
<td>13.9%</td>
</tr>
</tbody>
</table>

### Contraceptive Prevalence Age 15-44 in 2002

- Female Sterilization: 27%
- Pill: 31%
- Male Sterilization: 9.2%
- Condom: 18%
- IUD: 2%

### Prevalence Age 15-24

- Pill: 50-55%
- Condom: 25%
- Diaphragm: 1%
- IUD: 1%
- Sterilization:
  - Female: 4-15% (4% <20)
  - Male: 1%
Tubal Obstruction

- Laparoscopic (LS) tubal
- Hysteroscopic-Essure
- Partial salpingectomy - primarily postpartum

LS Tubal

- Bipolar cautery - highest ectopic risk
- Silicone band or Filshie clip - most successful to reverse
- If pregnancy occurs think ectopic
- Reduced ovarian cancer

Hysteroscopic Tubal Obstruction

- Essure (metal coil device)
- Out patient, low cost, good efficacy
Vasectomy

- Very high efficacy
- Outpatient
- Vasectomy and IUD most cost efficient contraceptive methods
- Reversible

Combined Oral Contraceptives (OC)

- 20-35mcg ethinyl estradiol
- Progestin variable i.e., 1mg norethindrone
- Failure rate 0.1%. Theoretic 7% real world
- Suppresses FSH, LH blocking egg development and ovulation, thickens cervical mucus, suppressed endometrium

Absolute Contradictions

- Previous thrombotic event, CVA, coronary artery disease, migraines with aura, valvular heart disease.
- Estrogen dependant tumor i.e., breast cancer.
- Liver disease.
- Pregnancy.
- Undiagnosed uterine bleeding.
Relative Contradictions

• Age over 45
• Poorly controlled Diabetes and hypertension
• Seizure disorder
• Sickle cell disease
• Smoking
• Hepatic disease gallbladder disease

Emergency Contraception

• Selective P Receptor Modulators (SPRM) ulipristal acetate
• Levonorgestrel 1.5mg used within 72 hours Plan B
• Copper 7 IUD – the most effective

Progesterone Pill

• Good in patients needing to avoid estrogen.
• More breakthrough bleeding.
• Important to take same time each day. If missed one pill then use backup contraception.
Depot medroxyprogesterone acetate (DMPA)
• 150mg IM q 3 months or 104mg SQ q 3 months.
• 99.7% effective.
• Amenorrhea some BTB
• Delayed return to fertility after discontinuing (70-80% conceive in 12 months).
• Good choice to avoid estrogen i.e., migraine, SS, fibroid patients.

Other Hormonal Contraception
• Implanon – single rod insertion 30-70mcg/day over 3 years.
• Ortho Evra – transdermal contraceptive patch 20ug ethinyl estradiol (EE), 150mcg norelgestromin. Some increased E related side effects. Improved compliance.
• NuvaRing – 15mcg EE and 120mcg etonogestrel daily. Non-latex vaginal ring. Vaginal irritation and discharge can occur.

Barrier Methods
• Diaphragm and cervical cap only effective with spermicide. Leave in place 6-8 hours after coitus.
• Sponge with spermicide. High failure rate. Leave in place up to 24 hours.
• Condoms with spermicide highly effective when used. Protection against HIV.
IUD

- Copper and progesterone IUDs are one of the most cost effective contraceptives.
- No increase in PID, or adverse effect of fertility.
- Decreases all pregnancy possibilities including ectopic, however if a pregnancy does occur think ectopic.

Conclusion

- Important to take the time to find a contraceptive that the patient will use.
- Always couple with condoms. Educate about HIV, hepatitis, syphilis, chlamydia and GC.
- Women, particularly young women, need to be empowered to insist on protection.