INFERTILITY

The causes and diagnosis of female and male infertility will be defined and discussed. Therapies of infertility will also be presented.

Evaluation of the Infertile Couple- When to Evaluate

- One year of trying if less than 35 yo
- 6 mos of trying if 35 or older
- 25 % couples conceive 1st month
- 60 % in 6 mos
- 85-90% after 1 yr
Time to Conception

Speroff L, Glass RH, Kase NG, editors. Clinical Gynecologic Endocrinology and Infertility. 7th ed. Baltimore Williams & Wilkins, 2005

Infertility: Impact of Age

• Female infertility increases rapidly after age 35


2002 National Survey Family Growth

Initial Testing for Female Patient

**Blood Testing**

- FSH/LH/E2 testing on CD 2, 3, or 4
- Infectious screening for hepatitis, syphilis, HIV, gonorrhea (ART only)
- Pregnancy screening for Blood type, Rh Factor, Rubella titer
- Prolactin and TSH
- Cystic fibrosis
- Other testing depending on history (i.e. immunology)

Causes of Infertility

- Unexplained, 10%
- Tubal and pelvic pathology, 35%
- Male factor, 35%
- Ovulatory dysfunction, 15%
- Unusual problems, 5%

*Speroff L, Glass RH, Kase NG, editors. Clinical Gynecologic Endocrinology and Infertility. 7th ed. Baltimore Williams & Wilkins, 2005*

History – Male

1. Previous Fertility Status
2. Urogenital Infections
3. Urogenital Surgery
4. Occupational Exposure
5. Drug History
History - Female

1. Duration of Infertility
2. Previous Contraceptive Practice
3. Obstetric History
4. Menstrual Pattern
5. Gynecologic History
6. Sexual History (Frequency, Coital Practices)
7. Drug History
8. Previous Infertility Evaluation

A. Ovarian Factors

1. Presence or Absence of Ovulation
2. Normal Corpus Luteal Function
Treatment of Ovarian Factors

1. Clomid/Serophene (Clomiphene Citrate)
2. Prednisone/Dexamethasone
3. Progesterone U.S.P.
4. Parlodel
5. Pergonal (FSH/LH)
6. Wedge Resection of the Ovary

Function of Cervical Mucus

1. Sperm Migration: Favorable at or near ovulation. Unfavorable at other times.
2. Protection of Spermatozoa
   A. From Vaginal Environment
   B. From Phagocytosis
3. Sperm Reservoir
B. UTERO-TUBAL FACTORS

1. Tubal Blockage
2. Uterine Anomalies
3. Adnexal Adhesions
Assisted Reproductive Technologies (ART)
An Expanding Armamentarium

In vitro fertilization (IVF)
Gamete intrafallopian transfer (GIFT)
Tubal embryo transfer (TET)
Zygote intrafallopian transfer (ZIFT)
Intracytoplasmic sperm injection (ICSI)
I. Intracytoplasmic Sperm Insertion (I.C.S.I.)

A. Indications
1. Oligospermia/azoospermia
2. Asthenospermia
3. Previous failure to fertilize
4. Sperm antibodies
I. In Vitro Maturation of Immature Oocytes

A. Advantages
   1. Eliminates gonadotropin administration
   2. Much less frequent monitoring
   3. Decreases cost
   4. Eliminates ovarian hyperstimulation syndrome
   5. Increases pool of oocyte donors

II. In Vitro Maturation of Immature Oocytes

B. Disadvantages
   1. Low yield of embryos
   2. Low pregnancy rates
III. In Vitro Fertilization of Frozen Human Oocytes

IV. Pregnancy in Women Over Age 40 – Role of Donor Ova
   A. Screening of potential recipients
   B. Endometrial preparation
   C. Results
   D. Ethical concerns

Successful pregnancy in a 63-year-old woman

Richard J. Paulson, M.D. *‡
Melvin H. Thornton, M.D. *
Mary M. Francis, B.S. *
Herminia S. Salvador, M.D. †

University of Southern California School of Medicine, Los Angeles, and Loma Linda University School of Medicine, Loma Linda, California