Surrogacy
Medical Aspects

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Traditional Surrogacy vs. Gestation Surrogacy

• Traditional Surrogate
  1. Carrier of the pregnancy is the biological mother, her egg is fertilized by the intended father sperm
  2. For this type of surrogacy, the traditional surrogate undergoes insemination using sperm from the intended father
  3. This type of surrogacy is rarely practiced in the United States and is not performed at ICRM.

• Gestational Surrogate/Carrier
  1. A woman who carries a pregnancy using the oocytes either from an intended mother or egg donor, fertilized by sperm from the intended father or a sperm donor.
     I. The carrier of the pregnancy is not biologically related to the resulting offspring
  2. This is the most common form of surrogacy in the United States.
  3. For the remainder of my presentation, when I refer to a surrogate or gestational carrier, it is this form of surrogacy that I am referring to.
Adoption vs. Gestational Surrogacy

• Adoption
  1. Parentage initially established biologically
  2. Due to circumstances, parentage reassigned during pregnancy to new set of parents.

• Gestational Surrogate/Carrier
  1. Parentage assigned prior to establishment of pregnancy.
  2. Pregnancy would not occur without clear assignment of parentage to the intended parents

Indications for use of a surrogate

• Surgical
  1. s/p hysterectomy
  2. D&C c/b Asherman’s syndrome
  3. s/p uterine ablation

• Gynecologic
  1. Adenomyosis
  2. Uterine anomalies
     I. Muellerian agenesis/MRKH syndrome

• Obstetric
  1. h/o recurrent poor obstetric outcome
     I. Idiopathic or refractory RPL
  2. Severe early onset pre-eclampsia
  3. Cervical insufficiency/very early onset PTL PPROM
Indications for use of a surrogate

• **Medical**
  1. **Cardiac**
     I. Eisenmenger’s syndrome
     II. Coarctation of the aorta
     III. Other cardiac
  2. **Autoimmune**
     I. Severe SLE w/ compromise of renal function
  3. **Oncologic**
     I. Cervical cancer s/p brachytherapy
  4. **Genetic/Chromosomal**
     I. Turner’s syndrome: secondary to coarctation + low risk of spontaneous aortic rupture

• **Same sex couples**
  1. Male/Male
     Donor egg w/ gestational carrier
  2. Female/Female
     Egg fertilized by donor sperm, pregnancy carried by partner
Medical Screening/Clearance for a Gestational Surrogate

• **Review of potential surrogate’s obstetric/medical history**

  1. Number of pregnancies and mode of delivery
  2. h/o obstetric complications
  3. Review of PMHx and meds with focus on problems that could impact pregnancy
  4. Review of PSHx with focus on problems that could impact pregnancy
  5. Most recent pap smear
  6. BMI

• **Psychiatric Screening w/ reproductive psychologist**

Medical Screening/Clearance for a Gestational Surrogate

• **Medical Clearance Exam**

  1. Complete history and physical
  2. Saline infusion sonogram
  3. Lab testing for both surrogate and spouse/partner

    I. Infectious disease testing (HBSAg, Hep C Ab, HIV, RPR/TPA, CMV IgG+IgM, HSV 1/2)
    II. Urine drug screen, nicotine screen
    III. ABO Rh + antibody screen
    IV. Rubella/varicella IgG
In Vitro Fertilization - Overview

• Patient stimulated with gonadotropins

• Eggs aspirated from ovary by ultrasound guided procedure

• Eggs fertilized with sperm (from partner or donor)

• Embryos transferred into uterus

Trophectoderm Biopsy and Preimplantation Genetic Screening (PGS)

Preparation of GC Uterine Lining for Embryo Transfer

GC placed on OCPs while waiting for embryo(s) for transfer

- Allows synchronization of IP IVF cycle and preparation of GC lining

Supplemental P4 Start

- Simulates ovulation
- Goal: Synchronize endometrial window of implantation w/ embryo development

Estradiol Valerate IM inj 2x/wk

- Builds uterine lining
- Prevents spontaneous ovulation

CD1

OCPS

Embryo Transfer
Embryo Transfer

Luteal Phase Support

- Estradiol Valerate IM inj 2x/wk
- Supplemental P4 Start
- Continue supplemental EV and P4 through 10-11 weeks of pregnancy
- Embryo Transfer

Pregnancy Monitoring
- Check serum hCG 10 and 20d post-ET
- Early OB u/s at 7 and 9 wks.
Questions?