

A Waning Luteal Phase

You may remember from physiology class that the menstrual cycle is divided into two phases: the follicular phase and the luteal phase. The follicular phase is, as the name suggests, when the dominant follicle is developing in the ovary and the luteal phase occurs after the egg is expelled from the ovary, leaving behind an involuted follicle that becomes known as the corpus luteum. After menstruation, which occurs during the first few days of the follicular phase, the estradiol levels start to rise causing growth of the endometrial lining and maturation of the egg and the follicle. At ovulation, a surge of lutenizing and follicle stimulating hormones stimulates the release of the egg from the follicle and the tissue left behind becomes the corpus luteum. The primary job of the corpus luteum is to produce progesterone which acts on the growing endometrium to make it receptive to implantation should pregnancy occur.

"Jennifer" is a pleasant woman in her early 30's who initially presents to your office after experiencing difficulty conceiving over the past year. Further discussion reveals Jennifer has irregular periods, premenstrual bloating and irritability, and breast tenderness. She is not taking any medications or supplements.

Luteal phase failure or luteal phase defect occurs when the corpus luteum fails to produce adequate progesterone to sustain the pregnancy during the first 10-12 weeks of gestation. This can be a result of failure of the follicle to develop due to inadequate follicle stimulating hormone, or due to the early breakdown of the corpus luteum. Either way, a defective corpus luteum results in inadequate progesterone production and is one of the leading causes of early termination of pregnancy (miscarriage) and may also be involved in failure of an embryo to implant in the first place.

Salivary progesterone levels during the mid-luteal phase are an effective and non-invasive way to analyze the patency of the corpus luteum and may provide invaluable information to a patient who is having difficulty achieving or maintaining pregnancy. Luteal phase defect can be treated with nutritional and botanical therapies to enhance and support proper function, and/or with supplementation of bio-identical progesterone during the luteal phase. Though there are many additional factors that can be involved with infertility, this simple intervention may be all that is needed to help your patients become pregnant.

References

1. Speroff L. Clinical Gynecologic Endocrinology and Infertility Seventh Edition 2005. Lippincott Williams & Wilkins
2. The International Council on Infertility Information Dissemination, Inc. <http://www.inciid.org/printpage.php?cat=infertility101&id=7>
3. Weschler, T. Taking Charge of Your Fertility. New York: HarperCollins.