The Tuesday Minute

Nutritional information.... one byte at a time

This Week's Topic

Natural Support For Female Infertility

You know the patient who decides to wait until the right time in her personal life or career before she decides to have a child. She tries, but it doesn't happen. Feelings of shame, inadequacy, and downright heartache can take over a person's life. It can cause great marital discord. The Department of Reproductive Health and Research estimated that one in four "ever-married" women of reproductive age in most developing countries are infertile because of primary or secondary infertility. That's a lot of people.

What are the causes of female infertility? The World Health Organization breaks them down this way: ovulatory disorders (25 %), endometriosis (15%), pelvic adhesions (12%), tubal blockage (11 %), other tubal abnormalities (11%), hyperprolactinemia (7 %), and unknown or other (19%). But what causes these vague terms ovulatory disorders, endometriosis, adhesions, tubal blockage, and the unknown or other categories?

Can you see the "I" word in all these labels? "I" for inflammation. As we get into the details and review the research, think how inflammation can be directly or indirectly tied to infertility. How many of you have removed garbage food from a patient's diet, increased movement, reduced stress and all of a sudden you hear the couple is pregnant? We can see how inflammation is the result of these factors. Fix the cause and the inflammation goes away.

One of the biggest factors is environmental toxins. These have a serious effect on the female endocrine system and as a result contribute to an increase in infertility. Many pesticides and herbicides mimic estrogen and bind to receptor sites disrupting the hormonal feedback loops.

Another category of toxins are heavy metals. They influence neurotransmitters in the central nervous system inhibiting the release of gonadotropin-releasing hormone from the hypothalamus. Mercury can accumulate in the pituitary gland affecting the production of gonadotropins.

Heavy metals can also accumulate in the adrenal glands and block many enzymatic pathways causing hyperandrogenemia or partial hypoadrenalism. Cadmium toxicity can be a cause of hyper- and hypothyroidism which can be another indirect link to infertility.

Let's take a look at some practical things we can do. Avoid caffeine. Caffeine has been found to interfere with ovulation; Over 1 cup of coffee per day or 3 cans of caffeinated soda has been associated with lower conception rates, as high as 50%.

Maintain a healthy weight. Obesity has been attributed to "anovulatory infertility" as a result of hyperandrogenism. This has adverse effects on the endometrium and developing ovacytes. An elevation in circulating leptin levels due to excess adipose tissue inhibits luteinising hormone and has a deleterious effect on follicular receptor cells.

Make sure you are getting adequate amounts of B12, folic acid, and B6. A severe vitamin B12 deficiency as found in pernicious anemia can cause infertility. A deficiency in folic acid has been linked

to preeclampsia, spontaneous abortion, stillbirth, preterm delivery, and low birth weight; even mild deficiencies in folate metabolism can contribute to fetal loss.

B6 is important in hormone production and helps to adjust progesterone and estrogen levels. A study was done on three-hundred sixty-four female workers in China. Urine specimens were collected for up to 1 year to detect gonadatropin levels as a measure for conception and early pregnancy loss. Low levels of B6 were directly correlated to a decrease in conception and contributed to the risk of early pregnancy loss.

A small study reported in the "Food and Nutrition Bulletin" on 14 patients with B12 deficiency and recurrent fetal loss with periods of infertility. B12 supplementation was successful in bringing 10 of these women to a full-term pregnancy.

Functional B12 and folic acid deficiencies are very prevalent. Click the link on the web page for a handout with specific testing suggestions. For B12, folic acid, and B6, Biotics makes a product called B12-2000 that is a lozenge and actually tastes good.

Another key to fertility is to maintain healthy levels of glutathione, vitamin A, E, and beta carotene. A study involving 40 women with habitual abortion and controls measured plasma levels of glutathione, vitamins A & E, and beta carotene. The women experiencing habitual abortion were significantly lower in these nutrients compared to the control group.

I've mentioned environmental toxins and metals. These precipitate free radicals and inflammation. Supplementing antioxidants with foods and neutraceuticals is critical.

In reference to antioxidants, good ol' vitamin C was looked at in a randomized controlled, multicenter study. Vitamin C at 750mg/day was administered to patients with luteal phase defects. Supplementation resulted in higher pregnancy rates in the treatment group compared to the controls. Still another study in Reproductive Biology and Endocrinology in 2005 reported that women with recurrent miscarriages and luteal phase defects had lower levels of antioxidants. The study showed that the concentration of antioxidants was significantly lower in women with recurrent miscarriages than in healthy women.

Based on that information, a double blind, placebo-controlled pilot study was done to determine the effects of vitamin E, iron, zinc, selenium, and L-arginine on fertility. The study revealed that mid-luteal progesterone levels increased from 8.2 ng/mL to12.8 ng/mL; the patients experienced a significant increase in the rates of ovulation and pregnancy.

We can supplement the antioxidants and nutrients mentioned with BioProtect from Biotics Research. BioProtect is a full spectrum antioxidant that contains vitamin, mineral, enzyme, plant, and amino acid antioxidants. It has been designed to supply and regenerate already oxidized antioxidants.

We should also encourage our patients to eat a rainbow of nutrients such as kale, yellow peppers, tomatoes, purple cabbage, blueberries, and apricots. Use Whey Protein Isolate on a daily basis and consume more broccoli, asparagus, avocado, and spinach to help optimize glutathione levels.

We should also assess nutritional status for each client we see. When we do and support the basic physiology, the body will often return to health and who knows… maybe even bring new life into this world. We have a bigger role in people's lives that we know.

Thanks for reading. I'll see you next Tuesday.