SLE AND HORMONES

Systemic lupus erythematosus (SLE) is primarily a condition of women in their childbearing years, and it is thought that hormones play a strong role in triggering and flaring the disease.  This review will talk about how hormones may influence SLE, and which hormonal therapies are appropriate for women with the disease.

As stated before, it is well known that sex hormones play a role in autoimmune disease, namely SLE.  SLE is a disease of women in their childbearing years, with flares occurring during pregnancy and in the post-partum period.  Many studies have looked at how hormones trigger and affect SLE.  From these studies, we know that estrogens enhance autoimmunity, while androgens and progestins suppress the immune response.  The body fluids and blood of patients with lupus have shown decreased concentrations of androgens from different parts of the body, as well as a decreased ratio of androgens to estrogens.  In addition, SLE patients have a quicker conversion of androgens to estrogens, and high estrogen concentrations have been found in the joint fluid of these patients.

Because of this hormonal connection, women with SLE need to be very careful about hormonal contraceptive use and hormone replacement therapy.  Birth control issues, namely a proper understanding of contraceptive options, are very important in women with lupus, as unwanted pregnancy can result in health risks to the mother and fetus.

Historically, doctors have been hesitant to prescribe oral contraceptives (OC’s) to patients with lupus, because of the worry that the hormones in these pills would trigger a disease flare.  However, recent studies have shown that OC use actually doesn’t increase the risk of serious lupus flare, time to first flare, or global disease activity, in women with mild disease.  Because of these studies, birth control pills with lower doses of estrogen are likely safe in women with mild lupus, but should be avoided in women at increased risk of clotting, or in women with moderate or severe lupus.  This includes women with antiphospholipid antibodies (antibodies which are associated with clotting events and pregnancy complications), the antiphospholipid syndrome (syndrome of recurrent clotting and/or pregnancy complications), or renal lupus.

Because progestin -only OC’s don’t confer the increased risk of clotting events that estrogen-containing pills do, they may be safer options in women with lupus and a tendency for clotting events.  However, progestin-only pills are associated with breakthrough bleeding and a higher failure rate than combination pills.  These pills also need to be taken at the same time every day without a pill free interval.

Other contraceptive options include Depo-Provera ( DMPA, a progestin that is injected intramuscularly and results in effective contraception for 3-4 months), Implanon (a single rod progestin implant that is inserted resulting in effective contraception for 3 years), and Intrauterine devices.  It is important to talk to your Rheumatologist about your contraceptive options and inform her before starting any hormonal therapies.

Because SLE primarily affects women in their 20’s-40’s and is hormonally driven, many women with SLE will notice that their disease quiets down once they hit menopause.  The issue of hormone replacement therapy is important, and women with SLE need to be aware of its effects.

Just as with oral contraceptives, studies have shown that HRT in women with SLE confers a small increase in risk of mild and moderate flares, but no increased risk of major flares.  That being said, HRT is associated with an increased risk of clotting and cardiovascular events, something that SLE patients are independently at higher risk for.  Because of this, HRT use should be considered very carefully in lupus patients, and should only be used in women without a history of clotting events, antiphospholipid antibodies or syndrome, and in women without cardiovascular disease or active lupus.

Understanding the effects of hormones on health and disease activity is very important for women with SLE.  Talk to your rheumatologist before starting any oral contraceptive or hormone replacement therapy, and work with her to come up with a plan to optimize your health and well-being.

Resource

Lupus International, SLE and Hormones (05, February 2020). Retrieved from:

http://www.lupusinternational.com/Living-With-Lupus/Pregnancy-and-Lupus-/Hormones-and-SLE.aspx