

Applying Transplant Immunology to Recurrent Pregnancy Loss

Applying the concepts of used in transplant immunology to the problems encountered in recurrent pregnancy loss, have opened up a wide range of diagnostic and treatment options for those patients suffering from RPL. We will discuss the basic terminology used in transplant immunology, which does cross over into autoimmune disease immunology as well. Over the last 15 years, our specialty referral clinic has dealt with thousands of women with RPL. Many clinics have approached this from a different angle, but many times only uncovering a small portion of the whole problem. It has become apparent through the study of a patients HLA genes, T cell, B cell, NK cell, NKT cell and antibody parameters, that many of the women with RPL are simply showing the first symptoms of underlying autoimmune issues. These in turn lead to loss of tolerance to paternal genetics and that in many cases leads to secondary issues. A complete analysis of the immune system in its entirety will lead to a much better overall picture of the complexity of the problem and lead to a more educated treatment option.

Our workup on these cases involves Genetics, Cells, Cytokines and antibodies. I will cover how we analyze each of these areas to help assess the underlying issues for the patients regarding their RPL. I will then discuss the main therapies we have employed and give a back ground on probable mechanisms for success. While there is still much to be learned in the field, the direction focusing on autoimmune and transplant immunology appears to be the path providing the greatest promise. I will discuss our observations and what I believe will be the future advancements in the field of Reproductive Immunology that will continue to treat our most difficult cases of RPL. This may lead to reduction of autoimmune disease in women, late pregnancy complications, and even a reduction or cure to epidemics such as autism.