## SUMMARY

Endometriosis is among the most common gynecologic disorders, affecting an estimated .7 to 5.6 million U.S. women and accounting for approximately 400,000 hysterectomies per year.[1] It is difficult to determine the prevalence of endometriosis, as many patients do not undergo laparoscopy, which currently is required for diagnosis. A conservative estimate suggests that the prevalence is about 20 to 25 percent in women who have symptoms of infertility, vs. 2 to 5 percent in women undergoing tubal ligation, the majority of whom have proven fertility.[2] Most women with this diagnosis have mild to moderate endometriosis and although the association between endometriosis and infertility is well documented, causality is not defined. A number of studies, of which a few are prospective and randomized, indicate that monthly fecundity rates in patients with endometriosis are about half those without endometriosis supporting such an association.[3,4] However, a lack of causality is a key point and focus of current research, because defining this link will provide more directed therapeutic interventions.

The aim of the study is to: 1) measure serum and peritoneal immunological profiles in infertile women with endometriosis, 2) measure the estrogen and progesterone levels in different subclass of endometriosis-associated infertility and compare to those without endometriosis, 3) examine the role of nitric oxide, oxidative stress and total antioxidant status in endometriosis associated infertility,.and 4) assess the relationship between the levels of cytokines, ovarian hormones, oxidative stress and determine their role in the pathogenesis and sequellae of endometriosis.



Key Words: 1. Endometriosis 2. Infertility 3. Cytokines 4. Reactive oxygen species 5. Antioxidants