INTRODUCTION

Unexplained infertility is a state in which no cause could be detected to explain it, inspite of thorough investigations for both partners with about 10% incidence. An immunological cause may be hidden in the peritoneal fluid away from routine sites for investigations ***(Bielfeld et al., 1993).***

Endometriosis stands as one of the most investigated disorders of gynaecology with more than 4500 articles published in the past 25 years. Yet, despite this intense academic interest, there remain basic holes in understanding of this enigmatic disease ***(Khorram etal., 1993).*** The importance of understanding the peritoneal microenvironment in order to decipher the pathogenesis of endometriosis has long been recognized. However, it is still unknown whether the increased activity of peritoneal inflammatory cells and their mediators is due to the presence of endometriotic implants or whether the endometriosis is resulting from an occult systemic immune disease ***(Smith, 1995).***

The peritoneal fluid (PF) is a dynamic environment that links the reproductive and immune systems. It appears likely that endometriotic tissue is influenced by this environment and in turn the PF is altered by the presence of endometriosis. The result is a cellular soup rich in stimuli ready to assist in the growth and maintenance of endometrial implants as well as inhibition of fertility ***(Vinatier et al., 1996).***

Macrophages appear to play a leading role in this drama, with contributions from other cell types such as peritoneal mesothelium, lymphocytes and even endometrium itself. Accumulated soluble substances such as prostaglandins, cytokines and growth factors probably

act as mediators to induce both endometriotic support and interference with fertility and early embryonic development ***(Oral et al., 1996).***