

The current study was done to investigate the relation between the bacteria different kinds and infertility in women, the study include 108 specimen from infertile and fertile women with ages range (20-40 years) these specimens collected from infertility and gynecology center of Maternity and Pediatrics Teaching Hospital in Babylon province. Urine, vaginal swabs and blood samples were used in this study. Bacteriological diagnosis for urine and vaginal swabs accomplished and showed variation in types and number of isolates. The isolates can be distributed as follows: Gram positive bacterial isolates include *Staphylococcus aureus* 48 (30%) 18 isolates urine and 30 vaginal swabs, *Escherichia coli* 24 urine and 19 vaginal swabs 43 (26.8%). Female infertility divided according to their causes into different types and the detection by anti-*Chlamydia trachomatis* antibodies reveals high concentration of IgG (46%) in the women with Polycystic ovary syndrome group, while the second high concentration (36%) in women with primary infertility. Immunological test of Cytokine IL-10 in patient show decreased in their concentration 11.5pg/ml compared with healthy at $P < 0.05$ especially at polycystic ovary syndrome group.