TUMOR NECROSIS FACTOR-α IN SERUM AND PERITONEAL FLUID ASPIRATE IN CASES OF FEMALE INFERTILITY

Thesis

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By

Karim Ahmed Wahba

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Supervisors

Prof. Dr. MOHAMED FAROUK FIKRY

Professor of Gynaecology & Obstetrics

Prof. Dr. MOHAMED ABD ALLA EL-MARAGHY

Professor of Gynaecology & Obstetrics

Dr. MOHAMED HASSAN NASR EL-DIN

Lecturer of Gynaecology & Obstetrics

Faculty of Medicine Ain Shams University

1998





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ABSTRACT

Tumor necrosis factor-alpha (TNF-alpha) is a cytotoxic cytokine released by stimulated monocytes and macrophages together with mesenchymal cells. Studies have shown that it is significantly elevated in cases of infertility especially in the peritoneal fluid in cases resulting from endmetriosis. It has been shown that it significantly reduces the motility of human sperms in vitro.

The aim of our study was to assess the importance of TNF-alpha in cases of female infertility, to study the correlation between its serum and peritoneal fluid levels and to find out the role TNF-alpha in cases of unexplained infertility and infertility resulting from endometriosis.

This study included 40 infertile women and 10 fertile women as controls. The 40 infertile cases were divided into 4 group: Group I: 10 cases with unexplained infertility. Group II: 10 cases with ovarian factor. Group III: 10 cases with tubal factor. Group IV: 10 cases with endmetriosis.

It was found that TNF-alpha is significantly high in various types of infertility in comparison with the controls. It is especially high in peritoneal fluid in cases of endomtriosis and in the serum in cases of unexplained infertility. It was found that there is negative correlation between its serum and peritoneal fluid levels. The levels of TNF-alpha had no relation with the type of infertility whether primary or secondary.

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