# CO-ENZYME Q10 IN MALE INFERTILITY WITH A STUDY OF HORMONAL EFFECTS AND SEMEN MOTILITY

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| **ABSTRACT**  The presented prospective randomized placebo-controlled study was conducted in Thi Qar city (Iraq). The study deployed 90 infertile male subjects for the administration of Q 10. The results revealed enzyme Q 10 as an effective treatment for improving the sperm parameters (motility, morphology, sperm concentration) which were statistically significant except for semen volume where P value was > 0.05. Also, this study showed no statistical significance between the use of enzyme Q 10 as a single agent therapy ( P>0.05 ). In this study, we can conclude that enzyme Q 10 is an effective treatment options for improving sperm motility, morphology and concentration. It was clear from the table that the older the men, the less interest in treatment with Co-enzyme Q10. The educational level is also considered an important factor in how this group accepts this disease and is convinced of the ways of Q 10 treatment. The study showed that the patients' doses are less than the control group's doses, as well as the PH and the volume of semen, while it was Pus cells higher, and this result indicates that the increasing of level of Co-enzyme Q10 improving the ability of infertile men in a large extent. Also it was clear from the data there was a clear relationship of Viscosity and Co-enzyme Q 10 in patient groups. The incapacity of a sexually active, non-contraceptive couple to become pregnant after 12 months or more of consistent, unprotected sexual activity is known as infertility, which is classified as a disorder of the reproductive system [1, 2]. Subfertility is a type of infertility, either primary or secondary, in which 1 in 7 couples require specialized assistance in order to conceive. For a pair who has never conceived before, primary subfertility is a delay in pregnancy; for a couple who has conceived before, secondary subfertility is a pregnancy delay [3]. The length of sexual exposure, frequency of coitus, and age of the partner all affect the likelihood of conception. Normal, young couples that engage in unprotected sexual activity had a 25% chance of becoming pregnant after one month, a 70% risk after six months, and a 90% chance after a year. After a year and a half or two years, only 5% of the couples will become pregnant [4, 5]. The causes are equally the fault of men and women. The majority of infertile pairs have one of the three main reasons, which are tubal-peritoneal illness, ovulatory failure, or a male factor [4].  **References:**  [1] Evenson DP, Larson KL, Jost LK. *Sperm Chromatin Structure Assay: Its Clinical Use for Detecting Sperm DNA Fragmentation in Male Infertility and Comparisons With Other Techniques.* Journal of Andrology. 2002;23(1):25-43.  [2] Leaver RB. Male infertility: *an overview of causes and treatment options.* Br J Nurs 2016;25:S35–40.  [3] Chehab M, Madala A, Trussell JC. *On-label and off-label drugs used in the treatment of male infertility.* Fertil Steril 2015;103:595–604.  [4] ROUSSEL – LOUIS ; *La famille incertaine* ; ED : Odile Jacob . Paris . 1989  [5] Leaver RB. *Male infertility:* *an overview of causes and treatment options*. Br J Nurs. 2016;25:S35–40. |

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