

Possible Role of Biological Agent on Characteristics of Sperm in Patients with Spondylarthritis

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Abstract

Background: The role of TNF- α and TNF- α antagonists on seminal fluid parameters in men is controversial. TNF- α is a cytokine had a wide range of cellular effects. In testis, “TNF- α is produced by germ cells and it has a role in the regulation of spermatogenesis”.

Objective: to study the effect of biological agent on sperm quality in a group of spondyloarthritis patients

Patients and Methods: A prospective study was carried out in Baghdad teaching hospital during the period starting on 1st of January 2013 till the end of October 2013 .All semen samples of (60) spondyloarthritis patients and controls (60) was collected by masturbation after (72) hour of sexual abstinence. The semen samples was examined with regard to sperm concentration, motility, and morphology, according to WHO 1999 guidelines.. Results were compared with controls

Results: According semen parameters such as Volume, PH, Count, Motility Morphology in two groups of spondyloarthritis there were no significant differences noticed between TNF blocking agents and semen parameters when compared to controls group on(baseline) but after (40 weeks), Regarding motility and morphology significant differences ($P < 0.001$) were found between cases and healthy controls.

Conclusion: Biological agents (infiximab&enbrel) had no affect on seminal fluid parameters such as volume, PH and sperm concentration, but it decreased motility of sperm and percent of normal morphology

Key words: Sperm, Biological agent, Semen, arthritis, TNF.

Received: 18th February 2015

Accepted: 20th April 2015

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