

Significant Effects of Smoking Habit on Male Fertility

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Background: Smoking is a common health problem worldwide. Many diseases and life threatening conditions have been linked to smoking habits, such as, lung cancer, oral cancer, bronchitis and several gastrointestinal disorders. Infertility link to smoking is still under intensive investigation.

Objective: To evaluate the effect of smoking on semen parameters of infertile Bahraini males.

Design: Open controlled trial.

Setting: Department of Molecular Medicine, CMMS, Princess Al-Jawhara Center for Molecular Medicine, Genetics and Inherited Diseases, Arabian Gulf University, Bahrain.

Method: Semen samples from 52 infertile patients were analyzed by conventional analysis methods, sperm chromatin dispersion test for sperm DNA integrity and colorimetric assay for total antioxidant capacity. Twenty-two (42.3%) were smokers of the study group.

Result: The data showed that smokers had more semen analysis abnormalities than the non-smokers. Smokers had more sperm with fragmented DNA than non-smokers ($\chi^2=6.17$; $P<0.002$).

Conclusion: Our study used conventional and molecular techniques to investigate male infertility in Bahraini patients and demonstrated that smoking is a contributing factor in the etiology of male infertility.