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Preliminary Study on the Effect of *Nigella Sativa (Habbatus Sauda)* Oil on Sperm Parameters of Rats

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Nigella sativa/ *Habbatus sauda,* commonly used in many Middle Eastern countries as a natural remedy, has been reported to positively affect fertility of diabetic rats. This study was conducted to examine the effect of *Nigella sativa* oil on fertility of normal male rats by looking at sperm parameters. Ten male *Sprague-Dawley* rats (7-9 weeks old) with initial average weight of 200-250g were randomly divided into two groups. Rats in *Habbatus sauda* (HS) and *Habbatus sauda* control (HSC) groups were force fed with 6.0µl/100g *Habbatus sauda* oil and 0.1ml/100g corn oil, respectively. Rats were sacrificed after 100 days of treatment. Abstracted epididymides were transferred to Toyoda Yokoyama Hoshi (TYH) medium prior to sperm motility, morphology and vitality evaluation. Based on the results, HS group had significantly higher percentage of normal (90.40±0.01%) and live (96.91±0.10%) sperm compared to HSC group ($p<0.05$). HS group also had significantly lower percentage of tail defect (7.23±0.01%) and dead (3.09±0.01%) sperms compared to HSC group ($p<0.05$). Hence, this study suggested that oral administration of *Nigella sativa* oil could improve fertility of male rats.

Keywords: *Nigellasativa*, sperm parameters, rats.