

Basic Health Sciences

Poster

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***Nigella sativa* oil extracts improves dyslipidaemia in high fat diet (HFD) animal model**

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Introduction: *Nigella sativa* has been reported to have anti-inflammatory and anti-oxidative properties. We aimed to investigate the effects of *Nigella sativa* oil extract on the high fat diet (HFD) fed animal model. **Methods:** Thirty male Sprague-Dawley rats were used. Four groups (n=7) were fed with high fat diet (HFD) rat pellet orally for 10 weeks. The rats with HFD groups were subsequently randomly divided again into 4 groups. One group was continued with HFD while the other 3 groups were continued with the HFD in addition to *Nigella sativa* oil extract treatment at three different concentrations (0.5, 1 and 1.5 ml/kg/day) for another 4 weeks. Blood biochemical analysis and histological assessment of liver were subsequently performed. **Results:** Animals fed with HFD had increased aspartate aminotransferase (AST), alkaline phosphatase (ALP), albumin, cholesterol/HDL ratio, triglyceride (TG) levels, but decreased globulin, albumin/globulin ratio and high density lipoprotein (HDL) levels. Meanwhile, HFD animals treated with *Nigella sativa* oil extract showed a significant increase in the globulin and HDL levels, but reduced ALP, albumin, cholesterol/HDL ratio and TG levels. *Nigella sativa* oil extract at the higher doses displayed much better effect. Histologically the liver in all groups exhibited micro vesicular steatosis. **Conclusions:** *Nigella sativa* oil extracts improve the dyslipidaemia in animal models with HFD.

KEYWORDS: *Nigella sativa*, high fat diet, dyslipidaemia