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Renoprotective role of tualang honey against high cholesterol diet induced acute kidney diseases in an animal model (Article)

Mohamed, Z.B.H.^a, Alfarisi, H.A.H.^a, Abdullah, N.Z.^a, Harun, N.^b, Muhammad, N.^a, Rahim, R.A.^a [✉](#) [👤](#)^aKulliyyah of Medicine, International Islamic University Malaysia, Malaysia^bDepartment of Pathology, Hospital Tengku Ampuan, Afzan, Kuantan, Pahang, Malaysia

Abstract

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The aim of this study is to determine the renoprotective effects of tualang honey against high cholesterol diet (HCD) induced acute and subacute kidney injuries in an animal model. Methodology: Ten female Sprague-Dawley rats were divided into two groups: the HCD group, fed with 12% cholesterol diet, and the HCD with tualang honey (HCD+TH) group, fed with HCD and daily dose of 1.4g/kg/day of tualang honey. Biochemical analysis of lipid and renal profiles were performed at 48 hours, 7 days, and 6 weeks. The animals were sacrificed after 6 weeks and the kidneys were harvested for histological examination. Results: The serum cholesterol and triglyceride levels were significantly lower in the HCD+TH group as compared to the HCD group at 7 days with p values of 0.025 and 0.031 respectively. The HCD+TH group showed significantly lower serum creatinine level than the HCD group at 48 hours (p=0.018). The histological sections of the renal tissue of the HCD and HCD+TH groups both revealed segmental mesangial hypercellularity and mesangial matrix expansion of the glomeruli. Conclusion: Our study revealed that tualang honey exhibited some degree of renoprotective effect biochemically but not histologically in the rat models fed with high cholesterol diet. © 2017 Zenab B Hamad Mohamed et al.

Author keywords

Acute and subacute kidney injuries High cholesterol diet Tualang honey

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
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 Rahim, R.A.; Kulliyah of Medicine, International Islamic University Malaysia, Malaysia;
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