

**Effects of Nigella Sativa L. and Hajrul
Yahood Bahsma (Zytonet Bany Israel)
On Experimentally Induced Renal
Calculi in Male Albino Rats**

**Thesis Submitted in fulfillment of the M.Sc. degree in
Pharmacology**

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Abstract

Urinary calculi are the third prevalent disorder in urinary system. Approximately, 80% of these calculi composed of calcium oxalate (Ca Ox), and calcium phosphate. hyperoxaluria causing renal cell damage and free radical production which augments crystal deposition in the renal tubules.

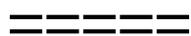
Nigella sativa and Hajrul yahood were mentioned in folklore medicine in treatment of renal stone disease. Antioxidant & anti-inflammatory effects of nigella sativa were speculated that of the roles of the Ns in preventing formation of CaOx calculi. Hajrul yahood had lithotriptic and diuretic effects which may explain his role in treatment of renal calculi.

The aim of this study is to investigate the effects of Nigella sativa seeds and Hajrul yahood bahsma on renal calculi induced by ethylene glycol in male albino rats.

Key wards:

(Renal stones- Nigella sativa – Hajrul yahood)

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**To My Family and My parents
For Their everlasting love,
encouragement & sacrifices**

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LIST OF ABBREVIATIONS

A.A	: acetic acid
Ca ⁺⁺	: calcium
Ca Ox	: calcium oxalate
CCl ₄	: carbonic tetrachloride
D.W	: distilled water
EG	: ethylene glycol
ESWL	: extracorporeal shock wave lithotripsy
GC-MS	: chromatography mass spectrometer
Hb	: hemoglobin
GFR	: glomerular filtration rat
HY	: hajrul yahood bahsma
i.c.v	: intracerebroventrically
Ig	: immunoglobulin
IL	: interleukin
i.p	: intraperitoneally
KCl	: potassium chloride
MC	: methyl cholanthrene
Mg ⁺⁺	: magnesium
Mg Cl ₂	: magnesium chloride

NaHCO_3 : sodium bicarbonate

$\text{Na H}_2\text{PO}_4$: sodium acid phosphate

NSAIDs : nonsteroids anti-inflammatory drugs

Ns : nigella sativa

PCV : packed cell volume

PO : orally

PO_4^{---} : phosphate

TBHP : tert-butyl hydroperoxid

UTI : urinary tract infection

Vs. : Versus

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