INFLUENCE OF GENE MUTATIONS ON INFLAMMATION, OXIDATIVE STRESS AND ENDOTHELIAL FUNCTION IN PATIENTS WITH FAMILIAL HYPERCHOLESTEROLAEMIA

INSTITUT PENGURUSAN PENYELIDIKAN
UNIVERSITI TEKNOLOGI MARA
40450 SHAH ALAM, SELANGOR
MALAYSIA

DISEDIAKAN OLEH:

PROF. DR. HAPIZAH MOHD NAWAWI
PROF. MADYA DR TENGKU SAIFUDIN TENGKU ISMAIL
DR THUHAIRAH HASRAH ABDUL RAHMAN
DR AMBIGGA DEVI A/P KRISHNAPILLA
DR ANIS SAFURA RAMLI

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PROJECT TEAM MEMBERS

PROF DR HAPIZAH MOHD NAWAWI
Project Leader

.....
Signature

PROF MADYA DR TENGKU SAIFUDIN TENGKU ISMAIL
Project Member

.....
Signature

DR THUHAIRAH HASRAH ABDUL RAHMAN
Project Member

.....
Signature

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ABSTRACT 1

OXIDATIVE STRESS AND INFLAMMATORY STATUS IN PATIENTS WITH FAMILIAL HYPERCHOLESTEROLAEMIA

Suhana NH, Razali R, Muid S, Abdul Rahman TH, Ramli AS, Krishnapillai AD, Ismail T and Nawawi H

Faculty of Medicine, Universiti Teknologi MARA, Shah Alam, Malaysia.

Background: Familial hypercholesterolaemia (FH) is a monogenic co-dominant disorder characterized by elevated plasma low-density lipoprotein cholesterol (LDL-C) levels and increased risk of premature coronary artery disease (CAD).

Objective: To compare the oxidative stress and inflammatory status between FH patients and normocholesterolaemic (NC) subjects.

Design: 98 definite and possible FH patients (mean ± SD age: 44.18 ± 12.25 years) and 100 normolipaemic controls (mean ± SD age: 44.71 ± 12.23 years) were recruited in this study. Blood samples were collected, separated, stored and analysed for fasting serum lipids, glucose, renal profile, liver function tests and urinalysis by automated standard laboratory techniques. Markers of oxidative stress (Ox-LDL, F_2-isoprostanes, MDA and LDL susceptibility to oxidation), markers of inflammation (hsCRP, IL-6, sICAM-1 and sE-selectin) were measured in each subjects. Ox-LDL, sICAM-1 and sE-selectin and IL-6 were measured by enzyme linked immunosorbent assay (ELISA), hsCRP was performed