evidence and recognition of sympathetic augmentation as the main cause for essential hypertension in a significant number of patients especially those with no known attributable secondary causes and those who are young. We discuss the role of the 'adrenaline hypothesis' in the pathophysiology of hypertension.

PHENYLETHANOLAMINE-N-METHYLTRANSFERASE INHIBITION FOR SUSTAINED BLOOD PRESSURE REDUCTION IN RATS

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Introduction: Hypertension is having an increasing impact on the world population's morbidity and mortality. The pathogenesis of hypertension is multifactorial but the 'adrenaline hypothesis' is being increasingly identified as a cause for hypertension in the young.

Objective: The aim of this study is to assess the extent and sustainability of blood pressure fall following peripheral blockade of adrenaline synthesis and to assess the use of THIQ and its ability to block peripheral adrenaline synthesis.

Methodology: Inbred strain of spontaneously hypertensive rats (SHRs) of Wistar-Kyoto Japanese strain rats were obtained and randomised into treated and control groups. Indirect systolic blood pressure (SBP) was measured under ether anaesthesia. 1,2,3,4-Tetrahydroisoquinoline administered chronically. Blood collected for plasma catecholamine measurement and BP/HR measured at regular intervals.

Results: Baseline SBP, HR and body weight comparable between treated and control groups (p=1.00, p=0.20 and p=0.22, respectively). Significant SBP drop seen post PNMTI administration (p=0.02). SBP also showed significant drop in week 1 (p=0.03) and week 2 post treatment (p=0.04). Treated SHR plasma catecholamine and dopamine levels also dropped 2-weeks following the PNMTI administration (p= 0.04).

Conclusion: This study is consistent with adrenaline hypothesis in the pathogenesis of essential hypertension in young spontaneously hypertensive rats. Consequently, we have also shown that chronic adrenal medullary inhibition with 1,2,3,4-Tetrahydroisoquinoline will result in sustained BP reduction.

PREHYPERTENSIVE STATE, METABOLIC SYNDROME AND CARDIOVASCULAR RISK FACTORS AMONG YOUNG ADULTS IN RURAL MALAYSIA

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Introduction: Hypertension is an important risk factor for Cardiovascular Disease in Malaysia. Hypertension prevalence is at 42.6% and population-based control is poor at 26.8%.

Objective: The objective of the study is to ascertain the cardiovascular risk profile of prehypertensive and mildly hypertensive young adults against age-matched controls in rural Malaysia.

Methodology: 484 subjects attending primary care clinics were screened. 91 young adults with pre/mild hypertension and normotensive, age-matched controls were enrolled. The blood pressure and biochemical profiles for both groups were assessed and compared.

Results: Fifty-four subjects and 37 controls were enrolled. Amongst subjects, 46.3% had prehypertension and 53.7% had mild hypertension. Mean values compared to age-matched controls for MAP were 102.68 ± 7.48 vs 83.25 ± 6.08 mmHg (p< 0.001), LDL 3.75 ± 0.95 vs 3.32 ± 0.93 mmol/L (p=0.03), FBS 4.65 ± 0.54 vs 4.33 ± 0.42 mmol/L (p=0.03), BMI 28.81 ± 5.16 vs 24.12 ± 4.91 (p< 0.001). The mean BP was significantly associated with BMI, FBS, triglycerides, HDL and the TC/HDL ratio.

Conclusions: Greater BMI, FBG, HDL, triglyceride levels and TC/HDL ratio characterised the young adults with pre/mild hypertension. The data suggests that hypertension in young adults is secondary to metabolic syndrome.

REVERSIBILITY OF THE EFFECTS CAUSED BY FENUGREEK SEEDS AQUEOUS (FSA) EXTRACT ON THE ESTROUS CYCLE AND REPRODUCTIVE HORMONES IN THE RAT ANIMAL MODEL.

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Introduction: In evaluating the potential of fenugreek seeds aqueous (FSA) extract as a contraceptive, it is essential to assess the reversibility of its anti-fertility effects. Reversibility is defined as ability for an induced altered physiological state to return to the normal state.

Objective: The aim of the present work was to evaluate the reversibility of changes in the oestrous cycle and levels of reproductive hormones in female rats following withdrawal treatment of FSA extract.

Methodology: Twenty four mature Sprague Dawley female rats were randomly divided into three groups of 8 rats each. Group A was the control and given distilled water. Group B was treated with 500 mg/kg/day of FSA extract for 15 days. Group C was the reversibility group in which the female rats were also treated with 500 mg/kg/day FSA extract and further observed for 21 days for reversibility effects. Daily vaginal smear cytology was performed and blood samples were taken from all animals after 15 days.

Results: The abnormal oestrous cycles following FSA treatment were gradually returned to normal within the 21 days of observation post treatment withdrawal. Administration of FSA extract led to a decrease in the serum concentration of estrogen ($P<0.001$), progesterone ($P=0.021$), FSH ($P=0.416$) and LH ($P=0.381$) while serum prolactin concentration was significantly increased ($P<0.001$). After 15 days of treatment withdrawal, serum estrogen, progesterone, FSH and LH concentration were not significantly different ($P\geq0.192$) in compare to the control group.

Conclusion: Withdrawal of FSA extract treatment restored the abnormal oestrous cycle and reproductive hormones to the normal state.

IS THERE ANY EFFECT (S) OF FENUGREEK SEEDS AQUEOUS EXTRACT ON THE REGULARITY OF ESTROUS CYCLE AND QUANTITY OF OVARIAN FOLLICLES OF FEMALE RATS?

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Introduction: The presence of diosgenin in fenugreek seeds is believed to be the active compound responsible for fenugreeks anti-fertility property.

Objective: The purpose of this study to evaluate the potential effects of fenugreek seeds aqueous extract (FSA) extract on the regularity of oestrous cycle and quantity of ovarian follicles.

Methodology: Thirty two healthy mature female rats were randomly divided into four groups of 8 rats each. The first group A was the control and received distilled water; the B, C and D received 250, 500 and 1000 mg/kg/day FSA extract, respectively, for 15 days. Daily vaginal smear cytology was examined and ovaries of the animals were removed after 15 days for histological study.