

**3rd Biennial Conference of the
South Asian Association of
Physiologists (SAAP-3)**

in conjunction with the

**25th Anniversary of the
Physiological Society of Sri Lanka
(PSSL)**

Abstract Book

**07th - 10th November 2012
Sri Lanka**

Table of Contents

	Page
Executive committee of the Physiological Society of Sri Lanka 2012	02
Organizing committee of the SAAP-3 conference	03
Advisory board of the SAAP-3 conference	05
Scientific programme	06
Plenary lectures	17
Symposia lectures	23
List of oral presentations	59
Abstracts of oral presentations	65
List of poster presentations	92
Abstracts of poster presentations	102

Cardiovascular physiology and related areas

PP 17: CORRELATION OF SERUM AND PERICARDIAL FLUID AMINO TERMINAL PRO-B TYPE NATRIURETIC PEPTIDE.

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PP 18: PERICARDIAL FLUID AND SERUM NT-PRO-BNP IN HEART FAILURE

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PP 19: RESPONSES OF CHEST PAIN AND DYSPNOEA TO INCREASE IN HEART RATE IN PATIENTS WITH CORONARY HEART DISEASE USING EXERCISE TOLERANCE TEST (ETT)

Sadaf Fatima

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PP 20: EFFECT OF YOGA ON HEART RATE VARIABILITY IN PERIMENOPAUSAL WOMEN

Khadka R, Paudel BH, Shrestha N, Regmi MC, Majhi S, Chhetri S, Sharma D, Gautam V, Karki P.

B. P. Koirala Institute of Health Sciences, Dharan, Nepal

PP 21: EFFECT OF ANAEMIA ON HEART RATE VARIABILITY IN MEDICAL STUDENTS

Agrawal K¹, Paudel B.H.¹, Khadka R¹, Upadhaya N¹, Deo SK¹, Majhi S², Sapkota N³

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PP 22: HEART RATE CHANGES DURING DIFFERENT PHASES OF MENSTRUAL CYCLE

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PP 23: STUDY OF LIPID PROFILE & HAEMODYNAMIC VARIATIONS DURING STRESS IN MEDICAL STUDENTS

Mevo Khan, Ghulam Mujadid, Sikander ADIL

Health, Pakistan

PP 24: THE RELATIONSHIP OF TNF- A WITH MOTOR DYSFUNCTION IN HYPERTENSIVE PATIENTS

Eryati Darwin, Darwin Amir

Faculty of Medicine, Andalas University, Indonesia

PP 25: KNOWLEDGE REGARDING HYPERTENSION IN HYPERTENSIVE PATIENTS ATTENDING A CLINIC IN

COLOMBO SOUTH TEACHING HOSPITAL, SRI LANKA

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Sri Lanka

Medical Education

PP 26: STUDENT PERCEPTION ON USEFULNESS OF TEACHING METHODS ADOPTED BY THE DEPARTMENT OF PHYSIOLOGY, FACULTY OF MEDICINE, UNIVERSITY OF COLOMBO TOWARDS LEARNING OF PHYSIOLOGY

Amali Manchanayaka, Udayanthi Nanayakkara, Rumeshe Senevirathne, Mangala Gunatilake

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PLACE OF MULTIPLE CHOICE QUESTIONS (MCQS) AS AN EFFECTIVE STUDY TOOL FOR LONG-TERM

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MERITS AND DEMERITS OF 'FREQUENT DISCUSSION EMBEDDED LECTURE' IN LEARNING PHYSIOLOGY: STUDENTS' OPINION

Azam Khan

General Medical College, Bangladesh

CASE BASED TEACHING AND ITS OUTCOMES TOWARDS CHANGE IN STUDY HABITS AND LEARNING ATTITUDE IN STUDENTS OF 2ND YEAR MBBS

Tausif Ahmed¹, Muhammad Asif Memon²

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RELEVANCE OF CLINICAL EXPOSURE IN TEACHING OF PHYSIOLOGY

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ELECTRONIC STETHOSCOPE FOR STUDENT USE

Rajesh Bhaskar

Department of Physiology, India

COMPARISON OF LEADERSHIP SKILLS WITH KNOWLEDGE AND ATTITUDES ON LEADERSHIP AMONG STUDENTS IN MEDICINE

Nanayakkara, Dilshani Dissanayake

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RATER AND SELF ASSESSMENT OF LEADERSHIP SKILLS AMONG FIRST YEAR MEDICAL STUDENTS USING VALIDATED LEADERSHIP QUESTIONNAIRE

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MEDITATION-ITS ROLE IN ENHANCEMENT OF ACADEMIC PERFORMANCE (IN PHYSIOLOGY)

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NURSING STUDENTS EXPERIENCE OF OSPE IN THE MALDIVES NATIONAL UNIVERSITY

Abdullah, Muna Hussain, Mariyam Rasheedha

Maldives National University, Maldives

FUTURE OF MEDICAL EDUCATION IN PAKISTAN

Muhammad Akram

Department of Physiology, Mohtarma Benazir Bhutto Shaheed Medical College, Mirpur, AJK, Pakistan

General medicine/ other areas

EFFECT OF STRESS ON FASTING BLOOD GLUCOSE LEVEL, BLOOD PRESSURE AND ANTHROPOMETRIC MEASUREMENTS AMONG THE WORKING AND NON-WORKING WOMEN: A COMPARATIVE STUDY

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STUDY OF LIPID PROFILE & HAEMODYNAMIC VARIATIONS DURING STRESS IN MEDICAL STUDENTS

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Background and objectives: Increased cholesterol in blood plays the role in atherosclerosis formation. It is assumed that stress increases cholesterol level. Most of previous studies were conducted on biological risk factors and blood lipids under stress in middle aged persons who remained under investigation for heart problems. The study was conducted to evaluate the changes in blood lipids and blood cortisol along with sympatho-adrenergic responses determined by selected haemodynamic parameters during psychological stress.

Methods: Medical students (n= 200) were randomly selected. They were examined two times, for stress task of degree (degree examination) and during non-stress period. Final selection of participants was depending on pre-assessment and their well being.

Results: Cortisol, systolic and diastolic blood pressure (SBP and DBP) and heart rate (HR) were significantly increased during stress period with $p < 0.001$ for each parameter. But different blood lipids levels (TC, LDL-C, HDL-C) were detected with different significant levels. The correlations of changed lipids with raised findings of haemodynamics and cortisol were also evaluated.

Conclusions: Further studies in our population are needed to evaluate the relation of changes in various biological factors including IL-9 and sympatho-adrenergic activates with stress factors related to our social or environmental problems, especially genetically based psychological factors.

RELATIONSHIP OF TNF- α WITH MOTOR DYSFUNCTION IN HYPERTENSIVE PATIENTS

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Background and objectives: The brain is one of the organs frequently affected in hypertension. High blood pressure stimulates endothelial inflammation and plays a role in atherosclerosis formation that leads to cerebrovascular disorders. Brain hypoxia and ischaemia in hypertension decrease autonomic regulation of blood flow and cause motor function disorder. This study was designed to determine the relationship between TNF- α and motor dysfunction in hypertension.

Methods: The subjects were hypertensive outpatients (198) with movement disorder symptoms. Examination of motor function was performed using the Purdue pegboard test and TNF- α was examined by ELISA.

Results: The first group consisted of 132 subjects (66,66%) with hypertension and the second group was 66 (34%) normotension. Motor dysfunction was found in 88 patients (66,70%) of the first group and 11 (16.7) of the second group. There was statistically significant difference ($p < 0.005$) between motor dysfunction in the first and second group, and correlated with hypertension. Low concentration TNF- α was found in 122 (61.60%) and high concentration (38.5%) subjects. Motor dysfunction was found in 61 (50%) subjects from the low concentration TNF- α , and 27 (70%) subjects from the high concentration TNF- α . There was no statistically significant relationship found between concentration of TNF- α with motor dysfunction ($p > 0.005$).

Conclusions: No relationship was found between levels of TNF- α with motor dysfunction in hypertension. Motor dysfunction was significantly correlated with hypertension.

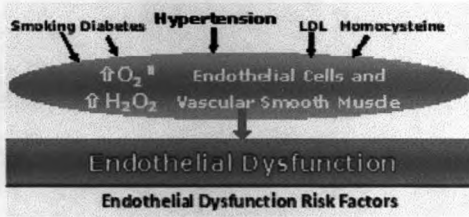


The Relationship of TNF- α With Motor Function Disorder in Hypertensive Patients

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Aims and Objectives



Hypertension and cardiovascular disease occurrence tend to increase due to the epidemiological transition in Indonesia. The brain is one of the organs frequently affected in hypertension. High blood pressure stimulates endothelial inflammatory process and play a role in the formation of atherosclerosis which leads to cerebral vascular disorders. Brain hypoxia and ischemia in hypertension reduce the autonomy and regulation of blood flow, and result in motor function disorder. To determine motor dysfunction in hypertensive patients due to endothelial dysfunction, we studied the relationship between tumor necrosis factor (TNF) α and motor function disorder in hypertension

Methods

The subjects were outpatients at health centres in the city of Padang that fulfilled the inclusion criteria. They were divided into groups with and without motor dysfunction. Motor dysfunction was examined using Purdue Pegboard Test, and TNF- α level was assessed using the blood serum by ELISA methods. This study design has been approved by the Research Ethics Committee of the Faculty of Medicine, Andalas University



Purdue Pegboard Test

Results

Table 1: Relationship of blood pressure with motor dysfunction of outpatient at health centres in Padang City

Blood Pressure	Motor Function		Total
	Dysfunction (n=99)	Normal (n=99)	
High	88 (66,70%)	44 (33,30%)	132 (100%)
Normal	11 (16,70%)	55 (83,30%)	66 (100%)

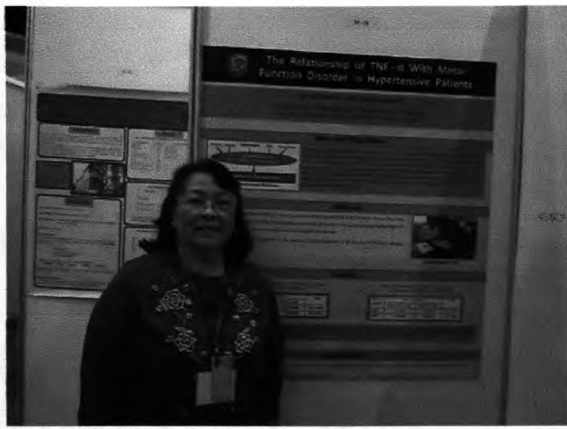
Table 2 : Relationship of TNF- α with motor dysfunction of outpatient at health centres in Padang City

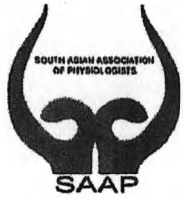
TNF- α (pg/ml)	Motor Function		Total
	Dysfunction (n=99)	Normal (n=99)	
High	61 (50%)	51 (50%)	122 (100%)
Low	38 (50%)	38 (50%)	76 (100%)

Motor dysfunction was more prevalent in the hypertensive group compared with the normotensive ($p < 0.05$) (Table 1) with Odds Ratio of 10.00, which meant that the chance of suffering motor dysfunction was ten times more likely in people with hypertension compared to normotensive. Table 2 shows that TNF- α level in the group with impaired motor function was not significantly different from the group without motor dysfunction ($p > 0.05$)

Conclusions

This study shows that there were significant relationship between hypertension and impaired motor function. However, no significant relationship was found between TNF α with impaired motor function





CERTIFICATE OF PARTICIPATION



This is to certify that

*Prof./ Dr./ Mr./Ms. **Eryati Darwin***

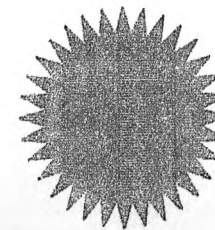
attended the

*3rd Biennial Conference of South Asian Association of
Physiologists*

& the

*25th Anniversary Celebrations of the
Physiological Society of Sri Lanka*

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