

Abstracts\*)



**The 4th Joint EFLM-UEMS Congress**  
**“Laboratory Medicine at the Clinical Interface”**  
**Warsaw, Poland, 21th–24th September, 2016**

**Organisers**

European Federation of Clinical Chemistry and Laboratory Medicine (EFLM)  
European Union of Medical Specialists, Section of Laboratory  
Medicine/Medical Biopathology  
Polish Society of Laboratory Diagnostics

**Under the auspices of**

International Federation of Clinical Chemistry and Laboratory Medicine  
International Association of Therapeutic Drug Monitoring and Clinical Toxicology,  
Collegium Medicum of Nicolaus Copernicus University, Warsaw Medical University

**Scientific Programme Committee**

Mauro Panteghini, Ana Maria Simundic, Ian Frayling, Antonio Robalo Nunes,  
Urszula Demkow, Bogdan Solnica, Eberhard Wieland (Chair)

**Organizing Committee**

Ana Maria Simundic, Pat Twomey, Katarzyna Bergmann, Sławomir Bialek,  
Olga Ciepela, Katarzyna Fischer, Magdalena Krintus, Joanna Siodmiak,  
Anna Stelmaszczyk-Emmel, Rafał Wlazel, Wojciech Zablocki,  
Hanna Zborowska, Grazyna Sypniewska (Chair)

**Guest Editors**

Agnieszka Pater, Grazyna Sypniewska, Collegium Medicum of Nicolaus  
Copernicus University

\*)These abstracts have been reproduced directly from the material supplied by the authors, without editorial alteration by the staff of this journal. Insufficiencies of preparation, grammar, spelling, style, syntax and usage are the authors' responsibility.

## Abstract number 0045

**Is there a correlation between C677T MTHFR polymorphism and the incidence of peripheral artery disease in east Algerian population?**

*Sabah Hanachi<sup>1</sup>, Karima Sifi<sup>1</sup>, Nacera Kerouaz<sup>2</sup>, Khalida Boudaoud<sup>1</sup>, Salima Zekri<sup>1</sup>, Daoud Roula<sup>2</sup>, Noredine Abadi<sup>1</sup>*

<sup>1</sup> *Medicine, Biology and Molecular Genetic Laboratory Medicine Faculty Algeria, Algeria*

<sup>2</sup> *Faculty of Medicine, Internal Medicine Department, Algeria*

**Introduction:** MTHFR, is a key enzyme in catalyzing 5,10- methylenetetrahydrofolate into 5-methyltetrahydrofolate. A missense mutation of MTHFR that converts alanine to valine (C to T substitution at nucleotide 677) encodes a thermolabile enzyme with lower specific activity. The MTHFR C677T polymorphism as a risk factor in peripheral artery disease (PAD) has been suggested, but direct evidence from genetic association remain inconclusive. The aim of this study is to analyze the prevalence of the MTHFR C677T gene polymorphism and to examine the possible association between PAD and MTHFR gene mutation in PAD patients and to compare them to controls.

**Methods:** 59 patients with PAD were included in the study. They were 44 males and 15 females with a mean age of 57.96 years. 48 patients (81.35%) were diabetic and 22 (37.3%) were hypertensive.

MTHFR C677T gene polymorphism was analyzed by PCR-RFLP. 85 healthy subjects (36 males and 49 females with mean age of 46 years) served as healthy controls.

**Results:** The C677T mutation of MTHFR was not found to be different in patients with PAD and controls. 31 patients with PAD (52.54%) and 44 healthy subjects (51.76%) had the wild-type genotype CC, 9 patients (15.25%) and 15 healthy controls (17.65%) had muted TT genotype, and 19 patients (32.20%) and 26 healthy controls (30.59%) had CT heterozygote genotype.

**Conclusions:** In the PAD population, MTHFR C677T gene polymorphism occurred in a pattern similar to that seen in controls. No significant association was detected between the T/T genotype and PAD.

## Abstract number 0053

**Implementation of guidelines in patients with very high LDL-C levels in daily clinical practice**

*Aysem Kaya<sup>1</sup>, Umit Yasar Sinan<sup>1</sup>, Ozge Cetinarlar<sup>2</sup>, Tevfik Gurmen<sup>2</sup>, Alev Araz Ozkan<sup>2</sup>*

<sup>1</sup> *Biochemistry, Istanbul University, Cardiology Institute, Turkey*

<sup>2</sup> *Cardiology, Istanbul University, Cardiology Institute, Turkey*

**Aim:** To evaluate the implementation of lipid guidelines in patients with very high LDL-Cholesterol levels in daily clinical practice.

**Methods:** A total of 25094 biochemistry records of a tertiary clinic (in and out-patients) during a twelve month period were screened and clinical and laboratory data of patients with very high ( $\geq 190$ mg/dl) LDL-cholesterol levels were analyzed in this observational study. We present the preliminary screening results of the 6464 records during the first 3 month period.

**Results:** There were 241 patients (3.72% of total, mean age  $57.2 \pm 11.4$ , 60.4% male) with high LDL-C levels. Hypertension, diabetes and positive family history were present in 39.1%, 42.6 and 21.6% respectively. Fifty four patients (22.4%) had a diagnosis of any vascular disease. The average LDL-C on first presentation was  $217.12 \pm 26.7$ mg/dL (min 190-max 398). Ninety one patients (37.8%) were on statins at initial presentation and an effective dose increase or change to a more potent statin was performed only in 20.9% (19/91). From 150 statin-naïve patients 38 (39.25%) were prescribed statins. In the next 12 months a control LDL-C level was available in only 41% (99/241) of patients and mean LDL-C level achieved was  $167.6 \pm 54.7$ mg/dL.

**Conclusion:** Although the importance of LDL-C for primary and secondary prevention is well established this preliminary data of a high risk group suggests that in routine daily clinical practice guideline adherence and follow-up as well as patient compliance is poor.

## Abstract number 0054

**Hyperhomocysteinemia in patients with coronary artery disease**

*Lilijana Brezovska-Kavrakova, Svetlana Cekovska, Irena Kostovska, Marija Krstevska*

*Department of Biochemistry and Clinical Biochemistry, Institute of ME Biochemia, Macedonia, The Former Yugoslav Republic of Macedonia*

**Aim:** To determine the concentration of plasma homocysteine (Hcy) and the lipid risk factors: total cholesterol (TC), HDL-cholesterol (HDL-C), LDL-cholesterol (LDL-C) and triglycerides (TG) in patients with coronary artery disease (CAD) and healthy subjects, control group, as well as, to investigate the correlation between tHcy and lipid parameters in the set two groups of subjects.