

## ІННОВАЦІЇ В МЕДИЦИНІ

# INNOVATIONS IN MEDICINE

Івано-Франківськ, Україна 28-30 березня 2019 р.

Ivano-Frankivsk, Ukraine March 28th-30th, 2019

#### МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ ДЕРЖАВНИЙ ВИЩИЙ НАВЧАЛЬНИЙ ЗАКЛАД «ІВАНО-ФРАНКІВСЬКИЙ НАЦІОНАЛЬНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ» ТОВАРИСТВО МОЛОДИХ ВЧЕНИХ СТУДЕНТСЬКЕ НАУКОВЕ ТОВАРИСТВО

## тези доповідей

88-ї науково-практичної конференції студентів та молодих вчених із міжнародною участю «ІННОВАЦІЇ В МЕДИЦИНІ»

#### **ABSTRACTS**

of the 88<sup>th</sup> Scientific Conference of Students and Young Scientists with International Participation «INNOVATIONS IN MEDICINE»

## ТЕЗИСЫ ДОКЛАДОВ

88-й научно-практической конференции студентов и молодых ученых с международным участием «ИННОВАЦИИ В МЕДИЦИНЕ»

28-30 березня 2019 року м. Івано-Франківськ **Головний редактор** — Ректор ДВНЗ «Івано-Франківський національний медичний університет», Заслужений діяч науки і техніки України, доктор медичних наук, професор, Лауреат Державної премії України у галузі науки і техніки **М.М. Рожко** 

#### Редакційна колегія:

Перший проректор, доктор біологічних наук, професор Г.М. Ерстенюк Проректор з наукової роботи, доктор медичних наук, професор І.П. Вакалюк Науковий керівник Студентського наукового товариства та Товариства молодих вчених, доктор медичних наук, професор Н.М. Воронич-Семченко Голова Товариства молодих вчених, кандидат медичних наук, доцент З.Я. Гурик

Голова Студентського наукового товариства Р.Р. Бігун

#### Організаційний комітет:

Солоджук Ю.І., Варунків С.В., Семченко В.А., Воронич В.О., Юркевич Б.Є., Сілецька О.В., Сачко А.М., Дехтяр Д.Г., Скрипко Ю.В., Середюк М.-А.В., Гринів Н.М., Бугерчук О.О., Фреїк С.П., Галій Н.В., Боліновська В.А., Красновський В.М., Юркевич М.Є., Філяк Ю.О., Мединська Ю.В., Лазуркевич Т.О., Дацишин Н.А., Дмитришин Я.Д., Павликівська О.С., Олійник І.В., Дрогомирецька О.О., Підлісна М.В., Лаврись О.Я., Сокирко Р.М., Щудлюк У.Б.

Конференція включена до «Реєстру з'їздів, конгресів, симпозіумів та науково-практичних конференцій, які проводитимуться у 2019 році» (№ 83)
Міністерства охорони здоров'я України

attending clinics in a tertiary center in Nigeria. The presence of asthma, allergy types, and asthma control levels were determined using the Gobal initiative on asthma (GINA), international study of asthma and allergy in childhood and asthma control test questionnaires, respectively.

Results There were 207 children with asthma enrolled from the Pediatric Asthma Clinic at University of Nigeria Teaching Hospital, Enugu. The median age was 10 years and interquartile range of 7–11 years. There were 127 (61.4%) from middle and high socioeconomic class and 86.5% who lived in the urban areas. Of the study participants, 41.5% had one or more allergy symptoms; rhinitis (33.3%), conjunctivitis (29.0%), and dermatitis (7.2%). Allergy symptoms persisted from infancy in 55.9%. Children from large families had a lower prevalence of allergies. Having any allergy symptom and belonging to a small-sized family were both associated with asthma exacerbations. Most children studied, (69.1%) had their asthma under control. Allergy persistence from infancy and type of allergy were not significantly associated with the level of asthma control.

Conclusion: Allergic diseases are common in children with asthma in our environment, but did not significantly impact on asthma control. Socioeconomic factors such as urbanization and family size had effects on the achievement of asthma control but not on allergy status.

## COMPARISON OF MAGNETIC RESONANCE IMAGING, ULTRASOUND AND MULTIDETECTOR COMPUTED TOMOGRAPHY IN DIAGNOSTIC LIVER AND KIDNEY POLYCYSTIC DISEASES

Pohrebennyk Y.Y., Simontobow J.A.
Scientific supervisors: Assoc. Prof., PhD V.M. Matskevych, Assoc. Prof., PhD T.L. Lenchuk
SHEE «Ivano-Frankivsk National Medical University»

Department of radiology and radiation medicine
Ivano-Frankivsk, Ukraine, vikaapo@gmail.com

Liver cysts seem to be caused by the same genetic changes that lead to cysts in the kidney (PKD Charity, 2018). Autosomal dominant polycystic kidney disease (ADPKD) is the most common inherited kidney disease (C.J.Willey,2016). The prevalence of liver cysts in people with ADPKD increases with age, with >90% of patients aged >40 years old having at least one cyst (K.T. Bae, 2006). Unlike renal cysts (which are unaffected by sex), liver cysts are more common and numerous in premenopausal women with ADPKD than men (K.J. Parminder,2017).

The aim. The establishment of radiological diagnostic methods possibility in the evaluation of polycystic kidney and liver disease.

The task of research. To compare the polycystic changes in liver and kidneys using magnetic resonance imaging (MRI), ultrasonography (USG) and multidetector computed tomography (MDCT).

The materials and methods. The MRI-, USG-, MDCT-scanes of liver and kidneys, of 30 patients aged 45-83 years were analyzed. Results. On MRI were visualized rounded structures with smooth sharply defined contours in liver and kidneys with low signal on T1 and high – on T2. During usage of gadolinium contrast media, no solid enhancement was revealed. Additionally the "starry sky" syndrome was detected in two cases with polycystic liver disease – hyperintense cystic lesions not connected with bile ducts on T2 MR-cholangiography. On MDCT anatomically, the structure of cysts was similar to MRI, with thin wall and density characteristic for water. The USG pattern of polycystosis was manifested by multiple, rounded, anechoic, liquid lesions with thin, often imperceptible walls of a diameter of 12-35 mm. Between the cysts, the areas of parenchyma were observed. The echogenicity of the parenchyma of researched organs was preserved. The pyelocalyceal system of kidneys was often dilated.

Conclusions. The magnetic resonance imaging, ultrasonography and multidetector computed tomography possessed high informativity in the evaluation of the structure, shape, size and prevalence of the lesions, their walls and contents in polycystic disease of kidneys and liver. The main advantage of ultrasound examination and magnetic resonance imaging over multidetector computed tomography was the absence of radiation exposure on the patient.

### CONTENT OF LEAD AND NICKEL IN MOTHERS' HAIR AND THEIR CHILDREN WHICH WEREBORN WITH INTRAUTERINE GROWTH RESTRICTION

Shkolna I.I., Shvachko D.V. Scientific supervisor: Prof. V.E. Markevych Department of Pediatrics Medical Institute, Sumy State University, Sumy, Ukraine, e-mail: shkolna.iryna@gmail.com

**Relevance.** Heavy metals are considered to be harmful, since they are toxic, not biochemical decay, have a long half-life in the soil and accumulate by living organisms through food or air. Hair can be used as a marker for the long-term effects of toxic elements, the study of their effects on the body of fetus and newborn is of particular importance.

Aims. To study the content of lead and nickel in women's hair and their children, which were born with intrauterine growth restriction (IUGR).

Contents of toxic elements were examined in hair of 10 women and their full-term infants which were born with IUGR (group I). The comparison group included 10 mothers and their full-term newborns (group II). The content of toxic elements was studied using atomic absorption spectrophotometer C-115 MI.

Results. According to lead, its content in the hair of the children from group I was  $0.061\pm0.009 \,\mu\text{g/g}$ , which is 2,9 times higher than in group II (p<0.05). The mean level of nickel did not differ in both groups and was  $0.021\pm0.004 \,\mu\text{g/g}$  and  $0.02\pm0.001 \,\mu\text{g/g}$  in I and II, respectively (p>0.05).

The level of lead in women's hair group I was  $0.09\pm0.011$  µg/g, which is 2,4 times higher in compared group (p<0.05). According to nickel, its content in hair of women of group I was  $0.026\pm0.005$  µg/g, which is 1,3 times less than in the group of women who gave birth to full-term newborns (p>0.05).

Conclusions: The level of lead in hair of mothers which born full-term newborns with IUGR was 2,4 times higher than who born full-term children. This can be explained by the excess intake of the above element woman's body through food, water or lead-contaminated air.