

Introduction. Dyslipidemias are complex qualitative or quantitative alterations of lipid metabolism. Their prevalence in children and adolescents with type 1 diabetes reaches up to 39%, depending on the glycemic control.

Aim of the study. To evaluate glycemic control in children and adolescents of different ages and its correlation to dyslipidemia.

Materials and methods. The retrospective study included 203 patients aged between 1 and 17, treated in “Institutul Mamei si Copilului” hospital during January - July 2019. Data collected: age, sex, duration of Diabetes mellitus type 1 (DM1), glyated haemoglobin (HbA1c), basal blood glucose, postprandial blood glucose, total cholesterol, β - lipoproteins, triglycerides (TG).

Results. Patients were classified into 4 groups, according to age: younger than 7 years old: 38 patients, between 8 and 11: 65 patients, between 12 and 15: 64 patients, older than 15: 36 patients. The oldest children had the worst control of diabetes: the average value of HbA1c was $10,0 \pm 1,9$ % in group of children older than 15 and $9,5 \pm 1,8$ % in children between 12 and 15 years old. We compared basal and postprandial glycemia from hospitalization to discharge in each age group and found that the best results were obtained in children between 8 and 11 years old, where basal blood glucose decreased by 3,8 mmol/l on average ($p < 0,01$) and postprandial blood glucose decreased by 3,9 mmol/l on average ($p < 0,05$). Even though patients aged 12 to 15 had poor diabetes control, they also obtained good results after treatment: blood glucose decreased by 3,0 mmol/l ($p < 0,05$) and postprandial blood glucose decreased by 2,9 mmol/l ($p < 0,05$). In the other groups, the changes were less significant.

Dyslipidemia was detected in 71 patients (34,9%), including 20 patients with hypercholesterolemia; 10 with hyperbeta lipoproteinemia; 11 with hypertriglyceridemia; 30 with combined hyperlipidemia. We determined that 48 patients (67,6%) with dyslipidemia had a poor glycemic control, 13 patients (18,3%) had a suboptimal glycemic control and 10 (14,1%) had an optimal control. Dyslipidemia was most common in the last 2 groups of children. The value of Pearson correlation coefficient between HbA1c and β -lipoproteins level was +0,33, which means there is a moderate positive correlation between the value of HbA1c and the frequency of dyslipidemia.

Conclusions. Children older than 15 years and children between 12 and 15 years old have the worst control of diabetes. There is an association of dyslipidemia with poor metabolic control. It's recommended to determine the lipid profile in patients with type 1 DM.

Key words: type 1 diabetes mellitus, dyslipidemia, glycemic control

DEPARTMENT OF GASTROENTEROLOGY

139. THE EVOLUTION OF LIVER FIBROSIS IN PATIENTS WITH CHRONIC HEPATITIS C VIRUS (HCV) INFECTION AFTER INTERFERON-FREE THERAPY.

Author: **Valeria Muntean**

Scientific adviser: Adela Turcanu MD, PhD, Associate Professor, Department of Internal Medicine, Gastroenterology *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction. In patients with chronic hepatitis C, the viral infection is a constant trigger of inflammation, which subsequently induces formation of fibrosis (Sangiovanni A, 2006), which lead to portal hypertension and hepatocarcinogenesis (Pungpapong S, 2007). Until recently, liver fibrosis and cirrhosis were regarded as irreversible processes (Bonis PA, 2001), however, several studies have reported that regression of liver fibrosis can be achieved using potent antiviral agents (DAA) in patients with chronic hepatitis C by improving hepatic necroinflammation and alleviating damage.

Aim of the study. This review aims to summarize current researches that assessed the impact of HCV direct-acting antiviral (DAA) therapy on changes in liver fibrosis (stiffness – LS) measured by transient elastography.

Materials and methods. A literature review of the articles published on HINARI and Pubmed databases between 2014 and 2020 years was done. To identify relevant studies on this topic we used the key words: „hepatitis C”, „ direct-acting antiviral”, „sustained virological response”, „hepatic fibrosis”, “and liver stiffness”. We analyzed about 40 different researches and compared the results that they provide.

Results. We compared fibroscan data of different studies that were collected at the baseline (T0) and at the end of interferon-free treatment (EoT) in patients with HCV infection. SVR was reached in about 97.5% cases. On the whole, LS decreases by 15-35% at the EoT (Bachofner JA, 2017, V. Knop, 2016). One year after treatment, LS decreases by an additional 15%, suggestive of fibrosis regression (Laursen, et al., 2019). Factors associated with a reduction in fibrosis as measured were lower BMI, bilirubin, FIB-4, and LS by transient elastography, as well as higher liver fibrosis value at registry enrollment (Ira Jacobson, 2019), SVR was associated significantly with this reduction (Dolmazashvili E, 2017). Failure to achieve improvement in liver stiffness were associated with relapses, low baseline liver stiffness measurement (A. Elsharkawy, 2017), baseline high glucose, low ALT, low platelets, presence of esophageal varices (Persico M, 2018).

Conclusions. In HCV patients with advanced fibrosis, pretreatment LS significantly reduced during DAA therapy, SVR was the only independent factor associated with this regression.

Key words: hepatitis C, direct-acting antiviral, sustained virological response, hepatic fibrosis, liver stiffness

DEPARTMENT OF FORENSIC MEDICINE

140. ESTIMATING THE TIME OF DEATH IN THE FORENSIC MEDICAL PRACTICE

Author: **Laurita Gavril**

Scientific adviser: Vasile Șarpe, MD, PhD, Associate professor, Department of Forensic Medicine, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction. The positive diagnosis of death is an important task in forensic medicine. It can be established by the forensic doctor or any other doctor of another specialty. The pathologist is often asked for an opinion on postmortem interval (PMI) based on the pathological findings. Estimating the time of death is of a great importance for the criminal investigation bodies, in regards to the possibility of justifying a version of actions, to gather evidence that can support or deny the states of action of suspect in a crime.

Aim of the study. Finding the best methods that can provide us with accurate information regarding the estimation of death time.