

**Global action towards the control of rheumatic heart disease in African countries.** In 2014, the 2<sup>nd</sup> All Africa Workshop on Rheumatic Fever and Rheumatic Heart Disease was held. The primary objective of the meeting was to develop strategies to reduce the burden of acute rheumatic fever and rheumatic heart disease in Africa. The attached Mosi-o-Tunya Call to Action addressing Rheumatic Fever and Rheumatic Heart Disease was issued. Subsequent meetings have been held including the 4<sup>th</sup> All Africa Workshop on Rheumatic Fever and Rheumatic Heart Disease that was held in 2016. This meeting was hosted by the Pan-African Society of Cardiology (PASCAR) and the African Union Commission (AUC). Challenges and progress towards eradication of Rheumatic Heart Disease in Africa were discussed.

The World Heart Federation has set a goal which aims at a 25 % reduction of death from Rheumatic Fever and Rheumatic Heart Disease in individuals < 25 years of age by 2025.

### **Conclusion**

Rheumatic Heart Disease is a preventable disease yet still of a great burden in Africa. Most cases have gone unnoticed and unreported in remote areas. Public awareness and education are vital components of control of Rheumatic heart disease. More effort and time needs to be put in towards eradication of Rheumatic heart disease. Rheumatic heart disease should become a priority in Africa.

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## **NONALCOHOLIC FATTY LIVER DISEASE: FROM STEATOSIS TO CIRRHOSIS**

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### **Introduction**

Non-alcoholic fatty liver disease (NAFLD) is the most common cause of chronic liver disease in the world, yet the complex pathogenesis remains to be fully elucidated.

NAFLD is one of the types of fatty liver which occurs when fat is deposited (steatosis) in the liver due to causes other than excessive alcohol use. NAFLD exists as a spectrum of disease from steatosis < steatohepatitis < fibrosis < cirrhosis and is a commonest cause of asymptomatic abnormal liver function. Risk factors disease are insulin resistance, obesity, metabolic syndrome, jejunoileal bypass surgery, age (adults 40–60 years old and children < 10 years), ethnicity (higher in Hispanics and Asians and lower in African Americans), drugs and toxins (amiodarone, corticosteroids, synthetic estrogens, methotrexate, antiviral drugs). Associated conditions includes hyperlipidemia, metabolic syndrome, type 2 diabetes, hepatitis C, rapid weight loss, total parenteral nutrition, Wilsons disease, Weber-Christian disease, polycystic ovarian syndrome, abetalipoproteinemia.

The disease increases liver-related morbidity and mortality, and often increases the risk for other comorbidities, such as type 2 diabetes and cardiovascular disease. Insulin resistance related to metabolic syndrome is the main pathogenic trigger that, in association with adverse genetic,

humoral, hormonal and lifestyle factors, precipitates development of NAFLD. Insulin receptors becomes less responsive to insulin, this results in increased fat storage, decreased fatty acid oxidation and decreased secretion of fatty acid into bloodstream. This process leads to steatosis which is increased synthesis and uptake of free fatty acid from blood into liver, there is formation of fat droplets in hepatocytes (microvesicles of fat called liposomes), continues accumulation of fat in liposomes forms macrovesicles which keeps enlarging and begins to push the nucleus of hepatocytes to the corner. The above results in cell death and inflammation leading to steatohepatitis (steatosis + inflammation). Accumulation of collagen fibers in place of dead cells results in fibrosis of liver and then cirrhosis in later stages.

Symptoms NAFLD are usually very vague and usually occur when there is significant damages and includes hepatomegaly, abdominal pain, jaundice, ascites, increased aspartate transaminase (AST) and alanine aminotransferase (ALT) level. Biochemical markers and radiological imaging, along with liver biopsy in selected cases, help in diagnosis and prognostication. Intense lifestyle changes aiming at weight loss are the main therapeutic intervention to manage cases. Insulin sensitizers, antioxidants, lipid lowering agents, incretin-based drugs, weight loss medications, bariatric surgery and liver transplantation may be necessary for management in some cases along with lifestyle measures.

#### **Purpose**

Reveal risk factors, concomitant diseases and stages of nonalcoholic fatty liver disease in different group patients.

#### **Materials and methods**

34 inpatients who have been diagnosed and treated with nonalcoholic fatty liver disease in gastroenterology department of Gomel City Clinical Hospital N3 were included. Laboratory and instrumental diagnosis methods like general blood analysis, biochemical analysis, prothrombin index, liver function test, blood glucose level and also ultrasonography were carried to aid diagnosis. The results of the diagnosis methods were computed into Microsoft EXCEL 2010 Version.

#### **Study results**

34 middle-aged ( $39,2 \pm 18,7$  yrs old, 70 % men, 30 % women) NAFLD inpatients were included. The most of patients were young people (20–40 y.o.) — 18/34 (53 %), 41–60 y.o. — 11/34 (32 %), 61–80 y.o. — 5/34 (15 %). The main risk factors of the disease were analyzed depends on the age of patients (table 1).

Table 1 — Risk factors in NAFLD patients

Risk factors	Patient's age, y.o.		
	20–40 94 % men, 6 % women	41–60 36 % men, 64 % women	61–80 60 % men, 40 % women
Obesity	44,4 %	45 %	60 %
Insulin resistance/diabetes	—	45,5 %	60 %
Dyslipidemia	38,9 %	63,6 %	80 %

The most of patients in the group 20–40 y.o. were male (94 %) who had only hepatomegaly and rare increased aspartate transaminase (AST) and alanine aminotransferase (ALT) level (table 2) with unclear pathogenesis of NAFLD.

Table 2 — Stages NAFLD in different group patients

Stages NAFLD	Patient's age, y.o.		
	20–40 94 % men, 6 % women	41–60 36 % men, 64 % women	61–80 60 % men, 40 % women
Steatosis	50 %	18 %	40 %
Steatohepatitis mild	39 %	72,9 %	60 %
Steatohepatitis moderate	5,5 %	—	—
Steatohepatitis severe	5,5 %	9,1 %	—

With an increase in the age of patients, there is an increase in risk factors and the degree of liver damage with the development of an inflammatory component.

Concomitant diseases includes cardiovascular diseases like arterial hypertension discovered in 6 patients, ischemic heart disease in 3 patients, as well as paroxysmal tachycardia and ventricular extrasystole in 1 patient, chronic gastritis in 11 patients, peptic ulcer disease in 3 patients, chronic pancreatitis in 5 patients, cholelithiasis in 4 patients. 14 patients didn't have any concomitant disease. It was noticed that patients with diabetes mellitus and hyperlipidemia had increased degree of steatohepatitis as compared with patients with no concomitant diseases.

Patients responded well to the use of lipid lowering medications and use of ursodeoxycholic acid and S-adenomethionine. Patients who adhered to medications and lifestyle modification easily reverted from steatohepatitis to steatosis.

### **Conclusions**

NAFLD is widespread in stage of steatosis in young people, especially men without obvious risk factors. Diagnosis of NAFLD often depends on biochemical and radiological investigations, as early stages of the disease are often clinically silent. Management of the disease primarily depends on intense lifestyle changes to lose weight.

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## **ИНТЕНСИВНАЯ ТЕРАПИЯ СИНДРОМА КОРОТКОЙ КИШКИ У ДЕТЕЙ**

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### **Введение**

Синдром короткой кишки (СКК) является патологией, которая проявляется мальабсорбцией и мальнутрицией, расстройством кишечного пищеварения в целом за счет сокращения протяженности кишечника в результате его резекций. Частота встречаемости составляет 26,5 на 100 тыс. живорожденных детей; летальность — от 13 до 39 %.

### **Цель**

Выявить особенности ведения пациентов с СКК в раннем и позднем послеоперационном периодах в условиях ОА и Р.

### **Материал и методы исследования**

Был проведен ретроспективный анализ 27 историй болезни пациентов с диагнозом СКК, находившихся на стационарном лечении в УЗ «РНПЦ ДХ» и, в дальнейшем, переведённых для продолжения лечения в ОАиР УЗ «ГДИКБ» в 2014–2017 годах.

### **Результаты исследования и их обсуждение**

В исследование включено 27 пациентов. Из них девочек 51,9 % (14 чел.), мальчиков 48,1 % (13 чел.). Средний возраст составил  $3,6 \pm 3,4$  месяца. Первичная патология: НЭК 48,1 % (13 чел.), ВПР кишечника 37 % (10 чел.), болезнь Гиршпрунга 14,9 % (4 чел.). Сепсис развился у 44,4 % (12 чел.) пациентов, из которых 66,7 % (8 чел.) в раннем послеоперационном периоде, 33,3 % (4 чел.) в позднем. В 50 % случаев (6 чел.) сепсис был бактериальной этиологии, в 20 % (2 чел.) грибковой, в 30 % (4 чел.) смешанной. Также подверглись коррекции следующие состояния: анемия в 55,6 % случаев (15 чел.), метаболический ацидоз 81,5 % (22 чел.), гипокоагуляция 14,8 % (4 чел.), гипогликемия 40,7 % (11 чел.), ги-