учетом необходимости проникновения через гематоэнцефалический барьер. Ежедневно состояние пациентки улучшалось, что подтверждали данные клинических, лабораторных и лучевых методов обследования в динамике. На 12-е сутки выполнено наложение вторичных швов на заушную область. Выписана пациентка была на 21-е сутки от момента поступления в стационар в связи с купированием воспалительных явлений со стороны полостей среднего уха и структур головного мозга в соматически удовлетворительном состоянии. ШР при выписке 6 / 6 м справа и слева.

## Выводы

- 1. В генезе и скорости развития внутричерепных осложнений важную роль играет не только характер и объем первичного воспалительного очага, но и реактивность организма в целом.
- 2. В молниеносном развитии описанного случая вторичного менингита возможно имело значение коморбидное состояние тиреоидэктомия в анамнезе с развившимся клиническим гипотиреозом.
- 3. Вирулентность инфекции также имеет клиническое значение в возникновении вторичных внутричерепных осложнений. В данном клиническом случае был выделен *Enterococcus spp*.
- 4. Необходимо помнить о наличии вторичных (отогенных и риногенных) внутричерепных осложнений, и назначать консультацию ЛОР врача пациентам с признаками гнойного менингита.
- 5. Внутричерепные осложнения являются угрожающим для жизни состоянием. Своевременная диагностика и оказание неотложной помощи экстренно выполненная санирующая операция первичного очага в полном объеме, позволяет сохранить жизнь пациента и устранить опасные последствия заболевания.

#### ЛИТЕРАТУРА

- 1. *Блоцкий, А. А.* Неотложные состояния в оториноларингологии / А. А. Блоцкий, С. А. Карпищенко. СПб.: Диалог, 2016. 208 с.
- 2. Дискаленко, В. В. Отогенные и риногенные внутричеренные осложнения: пособие / В. В. Дискаленко, К. А. Никитин. СПб., 2002. 15 с.
- 3. *Agrawal, S.* Complication of otitis media: an evolving state / S. Agrawal, M. Hussein, D. MacRae // J. Otolaryngol. 2005. № 34(1). P. 33–39.

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# RHEUMATIC HEART DISEASE: SITUATION IN AFRICAN COUNTRIES

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## Introduction

Rheumatic heart disease is a chronic valvular disease caused by an episode or several episodes of rheumatic fever. Rheumatic fever may occur after a group A streptococcal infection. This disease affects mostly children and young adults. Rheumatic heart disease is said to be a disease of poverty as it affects the poorest regions of the world and could be attributed to poor living conditions. In the recent years, the amount of publications has decreased about rheumatic fever and rheumatic heart disease. This reduction in amount of publications about rheumatic heart disease could be a reflection of decrease burden of disease in developed countries. There is a poor documentation of the incidence and prevalence of acute rheumatic fever and rheumatic heart disease in African countries [1]. However, rheumatic heart disease still remains a threat to the lives of many children and young adults in Africa.

# **Purpose**

To investigate the situation of rheumatic fever and rheumatic heart disease in African countries and actions towards control of this disease.

#### Materials and methods

An extensive literature search for recent publications on rheumatic fever and rheumatic heart disease was performed using search tools such as PubMed. Articles on the incidence of acute rheumatic fever and burden and control measures of disease in African countries were reviewed.

# Study results

Magnitude of disease. Around 33 million people around the world are affected by rheumatic heart disease and is estimated to be the leading cause of cardiovascular death during the first five decades of life. Worldwide, 320,000 lives are claimed annually by rheumatic heart disease and more than 9 million disability adjusted life years lost [2]. Majority of these deaths attributable to rheumatic heart disease occur in the developing countries most especially African countries and among indigenous part of the world. It is the third most important cause of heart failure in African adults and leading cause of acquired heart disease in African children [3]. Due to the existence of subclinical valve disease that may go unnoticed in remote areas where there is lack of access to diagnostic facilities such as electrocardiography coupled with unreported cases of rheumatic fever and rheumatic heart disease in certain regions, the prevalence of rheumatic heart disease is thought to be underestimated.

Measures towards control of RHD. Creating awareness is a great move towards the control of rheumatic heart disease in Africa. Acute rheumatic fever and rheumatic heart disease are diseases occurring in the poorest regions of the world and resource-limited areas. The importance of awareness in African countries cannot be overemphasized. Majority of the people affected in these areas are unaware of the disease [4]. Improving awareness of the masses has been demonstrated by several organizations introducing campaigns and awareness-raising visits to schools and other target groups into their programs.

Primordial prevention: over the years, there has been a dramatic decrease in the prevalence of rheumatic heart disease in high-income countries with improved socio-economic conditions and access to quality health facilities playing a major role in this. Primordial prevention of rheumatic heart disease in African countries endemic for rheumatic heart disease would go a long way in the control of rheumatic heart disease. Primordial prevention aims at inhibiting the emergence of risk factors which is prevention of group A streptococcus infection that may lead to acute rheumatic fever through improved environmental, social and behavioural conditions which are factors that could increase risk of infection.

Primary prevention: this involves identification of group A streptococcal pharyngitis in patients that are in the group of high risk for acute rheumatic fever (which are mostly the children and young adults). These individuals are treated with a single dose of long acting benzathine penicillin which is given intramuscularly [2]. In cases where the patient has an allergy to penicillin, alternative oral antibiotics can be given (phenoxymethylpenicillin, erythromycin). Adequate administration of antibiotics coupled with proper diagnosis of group A streptococcal infection reduces the incidence of acute rheumatic fever after the occurrence of group A streptococcal infection in most cases [5]. Primary prophylaxis of acute rheumatic fever should be one of the focuses of rheumatic heart disease control programs.

Secondary prophylaxis: this aims at prevention of recurrent acute rheumatic fever in individuals who have had an initial attack of rheumatic fever. This is ensured by continuous administration of an antibiotic. Benzathine benzylpenicillin given intramuscularly is considered to be effective. The duration of secondary prophylaxis is based on individual patients depending on risk of recurrence of rheumatic fever. Registration of patients with acute rheumatic fever and rheumatic heart disease is important to ensure follow-up. Education of patients on importance of this prophylaxis is also necessary.

Tertiary prophylaxis: this aims at prevention of further complications and reduction of morbidity and mortality of the established disease. Rheumatic heart disease could lead to serious complications such as heart failure, stroke, arrhythmia, endocarditis, heart failure being the major cause of death and disability. Prophylactic measures include treatment of heart failure, surgeries to repair damaged valves, anticoagulation to prevent stroke and management of arrhythmia.

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.

#### REFERENCES

- 1. *Mocumbi, A. O.* Rheumatic Heart Disease in Africa: is there a role for genetic studies? / Ana Olga Mocumbi // CVJAfrica. 2015. Vol. 26 (2). P. 21–26.
- 2. Kheir, S. M. The control of rheumatic fever and rheumatic heart disease: a call to raise the awareness / S. M. Kheir, Sulafa Khalid M Ali // Sudanese Journal of Paediatrics. 2014. Vol. 14 (1). P. 21–24.
- 3. Rheumatic heart disease in Africa: the Mosi-o-Tunya call to action / B. M. Mayosi [et al.] // Lancet Glob Health. 2014. Vol. 2 (8), № 23. P. 438–439.
- 4. *Zuhlke, L. J.* The Importance of Awareness and Education in Prevention and control of RHD / L. J. Zuhlke, M. E. Engel // Global Heart. 2013. Vol. 8 (3). P. 235–239.
- 5. Robertson, K. A. Antibiotics for the primary prevention of ARF: a meta-analysis / K. A. Robertson, J. A. Volmink, B. M. Mayosi // BMC Cardiovascular Disorders. 2005. Vol. 5 (1). P. 11.

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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, abetalipoproteinamia.

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,