

2. Bozkurt B, Kamat I, Hotez PJ. Myocarditis With COVID-19 mRNA Vaccines. *Circulation*. 2021 Aug 10;144(6):471-484. doi: 10.1161/CIRCULATIONAHA.121.056135. Epub 2021 Jul 20. PMID: 34281357; PMCID: PMC8340726.

3. Power JR, Keyt LK, Adler ED. Myocarditis following COVID-19 vaccination: incidence, mechanisms, and clinical considerations. *Expert Rev Cardiovasc Ther*. 2022 Apr;20(4):241-251. doi: 10.1080/14779072.2022.2066522. Epub 2022 Apr 18. PMID: 35414326; PMCID: PMC9115793.

4. Schauer J, Buddhé S, Colyer J, Sagiv E, Law Y, Mallenahalli Chikkabyrappa S, Portman MA. Myopericarditis After the Pfizer Messenger Ribonucleic Acid Coronavirus Disease Vaccine in Adolescents. *J Pediatr*. 2021 Nov;238:317-320. doi: 10.1016/j.jpeds.2021.06.083. Epub 2021 Jul 3. PMID: 34228985; PMCID: PMC8253718.

5. Luk A, Clarke B, Dahdah N, Ducharme A, Krahn A, McCrindle B, Mizzi T, Naus M, Udell JA, Virani S, Zieroth S, McDonald M. Myocarditis and Pericarditis After COVID-19 mRNA Vaccination: Practical Considerations for Care Providers. *Can J Cardiol*. 2021 Oct;37(10):1629-1634. doi: 10.1016/j.cjca.2021.08.001. Epub 2021 Aug 8. PMID: 34375696; PMCID: PMC8349442.

## IMPORTANCE OF ANTI-MALARIAL CHEMOPROPHYLAXIS FOR TRAVELLERS ENTERING MALARIA ENDEMIC REGIONS

Poddalgoda A. M. H. N, Fernando M. A. D. M, Wattage S. K.

Grodno state medical university

Научный руководитель: Semeonova Svetlana

**Introduction.** Malaria stands as one of the most significant global health challenges, affecting millions of lives annually, particularly in tropical and subtropical regions. According to the WHO, countries of the African region continue to contribute majorly to the global malarial burden [1]. In Belarus, prevalence is less noted. However, the number of cases studied for the research include patient history of recent travel to endemic regions and being infected.

**Aim of the study.** To delve into the multifaceted aspects of malaria, the significance of travellers getting infected and prevention strategies.

**Materials and methods.** This study was based on data of 10 cases collected retrospectively. Medical records included all malaria cases admitted to the Grodno Regional Infectious Hospital between November 2015 to May 2023. Diagnosis of malaria was made based on peripheral thick and thin blood films. The severity of parasitaemia was indicated by the number of “+” signs (“+” was considered low parasitaemia, while “++” and “+++” were considered moderate parasitaemia and high parasitaemia levels, respectively). Clinical assessment on admission was based on the patients’ presenting complaints, and biochemical and blood analyses. The following parameters were used; alanine aminotransferase (ALT), aspartate aminotransferase

(AST), total bilirubin, serum creatinine (Cr), platelet count (PLT), glomerular filtration rate (GFR), and C-reactive proteins (CRP).

**Results and discussion.** All reported cases were within the age range of 22–55 years. Majority of the patients (8) were Belarussians while one was East African and the other was West African. All of the patients had a recent travel history to a malarial endemic region (Angola, Cameroon, Gabon, Eritrea, Nigeria, and Maldives). None of the patients had undergone anti-malarial chemoprophylaxis, except for one. This patient had taken artemisin as chemoprophylaxis while she was in Africa, but did not complete the drug course. Out of ten valid cases, two cases presented with severe disease and they were initially admitted to the ICU. The rest of the eight patients were treated in the wards. Three cases – *P. malariae*, two – *P. vivax* and five – *P. falciparum*. Parasitic counts of seven patients were available. One with low parasitaemia (+), four with moderate parasitaemia (++) and two with high parasitaemia (+++).

According to the clinical features on admission all patients had experienced fever 37.3°C – 40.0°C. On average, increased temperature lasted for about 15.9 days. Besides fever, patients presented abdominal pain (2/10), loss of appetite (2/10), weakness (9/10), chills (7/10), sweating (6/10), muscle pain (3/10), headache (1/10), diarrhoea (2/10), and flu-like symptoms (3/10).

The main physical examination findings were hepatomegaly (3/10), splenomegaly (2/10), and hepatosplenomegaly (4/10). Jaundice was present in one patient. Disease complications such as, haemolytic anaemia was recorded in eight patients, out of which six were mild, and two were moderate anaemia cases. Thrombocytopenia was seen in three patients, out of which one had severe reduction of platelets ( $60 \times 10^9$ ). Among the two cases that were treated in the ICU, one case was complicated by sepsis of unknown aetiology (according to the SOFA organ dysfunction scale – 9 points). For the treatment of these patients, anti-malarial drugs such as hydroxychloroquine (Immard), primaquine, quinine and artemether/lumefantrine were used, along with doxycycline.

**Conclusion.** It is important that people who travel should be eligible to assess the critical conditions of travelling into malaria endemic territories. Therefore, implementing safety protocols against malaria among travellers would have a better outcome.

#### ЛІТЕРАТУРА

1. Malaria: The Past and the Present [Electronic resource] / J. Talapko [et al.] // Microorganisms. – 2019. – Mode of access: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6617065>. – Date of access: 19.02.2024.