Hepatic parasites: A silent threat to liver health.

Nandini Themistoklis*

Department of Aquatic Ecology, Netherlands Institute of Ecology Droevendaalsesteeg, Wageningen, the Netherlands, Netherlands

Introduction

The liver is a vital organ in the human body, responsible for numerous metabolic functions, including detoxification, digestion, and the production of important proteins. However, this organ is not immune to parasitic infections, which can have severe consequences for both human health and the healthcare system. Hepatic parasites are a diverse group of organisms that can infect the liver, causing a wide range of symptoms and complications. This communication aims to provide a comprehensive overview of hepatic parasites, their epidemiology, clinical manifestations, diagnosis, treatment, and prevention [1].

Hepatic parasites encompass various organisms, including liver flukes, amoebas, tapeworms, and schistosomes. These parasites primarily enter the body through ingestion or contact with contaminated water or food sources. Once inside the host, they can establish themselves in the liver tissue, leading to hepatic diseases [2].

Liver flukes are a group of parasitic flatworms that infect the liver. Fasciola hepatica and Fasciola gigantica are two notable species that can cause hepatic fascioliasis. Humans become infected by ingesting contaminated water plants or drinking water contaminated with the parasite's cysts. Symptoms may include abdominal pain, jaundice, and fever. Diagnosis often involves serological tests and imaging techniques like ultrasound. Praziquantel is commonly used for treatment [3].

Entamoeba histolytica is the causative agent of hepatic amoebiasis, a parasitic infection of the liver. Ingestion of contaminated food or water containing amoebic cysts can lead to infection. The parasite can cause liver abscesses, leading to symptoms like abdominal pain and fever. Diagnosis involves serological tests and imaging, while treatment includes metronidazole followed by luminal amoebicides [4].

Echinococcus granulosus and Echinococcus multilocularis are tapeworms responsible for hepatic echinococcosis, also known as hydatid disease. These parasites are transmitted through the ingestion of contaminated food or water. Hepatic echinococcosis can cause cystic lesions in the liver, leading to complications if left untreated. Diagnosis involves imaging techniques like ultrasound and CT scans, followed by surgical or medical management.

Hepatopulmonary syndrome (HPS) is a rare complication of liver disease caused by hepatic schistosomiasis. Schistosoma mansoni and Schistosoma japonicum are two common schistosome species associated with HPS. These parasites enter the body through skin contact with contaminated water. HPS is characterized by dilated pulmonary blood vessels, leading to oxygenation problems. Diagnosis relies on imaging and arterial blood gas analysis. Treatment focuses on managing the underlying liver disease and may include liver transplantation for severe cases [5].

Conclusions

Hepatic parasites pose a significant public health concern in many parts of the world, particularly in regions with poor sanitation and limited access to clean water. These parasites can cause a range of liver diseases, from mild to severe, with potentially life-threatening consequences. Early diagnosis and prompt treatment are crucial to preventing complications.

Prevention strategies, such as improved sanitation, safe drinking water access, and health education, are essential in controlling hepatic parasite infections. Additionally, healthcare professionals must remain vigilant in regions where these parasites are endemic, ensuring early detection and effective treatment.

In summary, hepatic parasites represent a diverse group of organisms capable of causing liver diseases with varying degrees of severity. Understanding their epidemiology, clinical manifestations, diagnosis, treatment, and prevention measures is essential in mitigating the impact of hepatic parasite infections on public health.

References

1. Biamonte MA, Wanner J, Le Roch KG. Recent advances in malaria drug discovery. Bioorg Med Chem Lett. 2013;23(10):2829-43.
2. Greenwood BM, Fidock DA, Kyle DE. Malaria: progress, perils, and prospects for eradication. J Clin Invest. 2008;118(4):1266-76.
3. Prudêncio M, Rodriguez A, Mota MM. The silent path to thousands of merozoites: the Plasmodium liver stage. Nat Rev Microbiol. 2006;4(11):849-56.
4. Cowman AF, Healer J, Marapana D, et al. Malaria: biology and disease. Cell. 2016 Oct 20;167(3):610-24.
5. Mota MM, Pradel G, Vanderberg JP, et al. Migration of Plasmodium sporozoites through cells before infection. Sci. 2001;291(5501):141-4.

***Correspondence to**: Nandini Themistoklis. Department of Aquatic Ecology, Netherlands Institute of Ecology Droevendaalsesteeg, Wageningen, the Netherlands, Netherlands, Email: nandini_themistoklis@hotmail.com

***Received:** 18-Sep-2023, Manuscript No. AAPDDT-23-116787; **Editor assigned**: 19-Sep-2023, PreQC No. AAPDDT-23-116787(PQ); **Reviewed:** 02-Oct-2023, QC No. AAPDDT-23-116787; **Revised:** 06-Oct-2023, Manuscript No. AAPDDT-23-116787(R); **Published:** 17-Oct-2023, DOI: 10.35841/2591-7846-8.4.160*

***Citation:** Themistoklis N. Hepatic parasites: A silent threat to liver health. J Parasit Dis Diagn Ther. 2023; 8(4):160*