

Background: Hepatitis E is the most common cause for acute hepatitis with approximately 3.3 million symptomatic cases out of the 20 million estimated Hepatitis E Virus (HEV) infections worldwide. It has a global distribution with two separate epidemiological patterns: endemic and sporadic. In France, Occitania, Corsica, and the South-East region have the highest annual incidence rates. It is a mainly foodborne disease occurring after consumption of contaminated water or raw or undercooked pork, boar or deer meat. Other routes of transmission include: contact with infected persons or animals, mother-to-infant transmission, and parenteral route. Incubation period after oral contamination is 14 days-10 weeks. Pregnancy, immunosuppression, and pre-existing chronic liver disease represent risk factors of severe HEV infection with liver failure and death.

Objectives: Increase hepatitis E awareness among travelers to Occitania, Corsica, and South-East France.

Methods: We report a case of symptomatic hepatitis E in a French military traveler.

Results: On February 1, 2022, a 46 year-old French military, up-to-date on all his routine vaccines (especially Hepatitis A and B), with unremarkable past medical history, presented with recent fatigue, anorexia, nausea, dark urine, light jaundice, and pruritus. He reported the consumption of figatellu and fitone (Corsican specialities made of pork meat) while visiting his wife's family in Corsica, during the Christmas holidays, in December 2021. Blood work showed a 130-fold, 50-fold, and 5-fold increase of ALT, AST, and conjugated bilirubin respectively. Free bilirubin, hemoglobin, and haptoglobin rates were normal as well as prothrombin time. Ultrasound imaging of the liver and bile ducts was unremarkable. HEV IgM antibodies were 34-fold the normal level. HIV, HCV, CMV, and HHV6 serologies were negative. He was immune to toxoplasmosis, EBV, HAV, and HBV. Treatment was based on rest and avoiding hepatotoxic products (alcohol, acetaminophen, etc). Outcome was favorable with complete recovery 6 weeks later. His wife was HEV IgG positive.

Conclusions: Hepatitis E is an underestimated and underdiagnosed disease with potential lethal outcome (particularly in case of pregnancy, immunosuppression, and pre-existing chronic liver disease). Prevention in travelers is based on drinking only purified water and avoiding raw or undercooked pork, venison, and wild boar meat in endemic countries.

Conflict of Interest: None

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An Update on the Role of Imaging in the Care of Patients with Genitourinary Schistosomiasis: A Systematic Review

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Background: Schistosomiasis is a parasitic trematodiasis caused by worms of the genus *Schistosoma*. In areas that are endemic to *Schistosoma haematobium* - Africa and the Middle East - genitourinary schistosomiasis causes significant mortality and morbidity. Infection with *Schistosoma haematobium* can lead to severe fibrosis and calcification in the urinary and reproductive organs such as the bladder, ureter, and genitalia. Infection is also highly correlated to infertility.

Objectives: There have been no recent authoritative resources to guide the use of imaging in the initial risk stratification and management of genitourinary schistosomiasis, therefore, our work aims to fill this gap in clinical care guidance by performing a systematic review of existing evidence.

Methods: Five databases were searched using the following search terms: [Schistosomiasis OR (Schisto* AND haematobium)] AND [CT OR (computed AND tomography) OR Ultraso* OR sonogr* OR MRI OR (Magnetic AND resonance AND Imaging) OR Echo OR Imaging] AND [Bladder OR ureter OR ureter* OR genital OR prostate OR seminal vesicle OR vas deferen* or urinary] from database inception to December 2020. After de-duplication 769 articles remained for title/abstract screening. Articles were systematically double screened by two reviewers and a tertiary arbitrator. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) was employed. Data were summarized using qualitative measures.

Results: Imaging was able to demonstrate abnormalities in the bladder, caused by infection including changes in shape, size, and the presence of calcifications. In a study done in an established endemic area of Madagascar, ultrasound showed bladder abnormalities in 47% of participants infected with *Schistosoma haematobium*. Likewise, ultrasounds performed on Zimbabwean primary school children revealed bladder masses and thickenings in 27% of those who were infected with the parasite.

Conclusions: In countries endemic to the disease, the use of imaging was able to diagnose and provide key information about disease progression and management. Imaging is an important tool for risk stratification and management caused by schistosomiasis. This systematic review on imaging evaluation on genitourinary schistosomiasis will strengthen the current body of knowledge. Findings can be translated into clinical recommendations that can improve risk stratification and management of this genitourinary disease.

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***Dientamoeba fragilis* Infection; Clinical and Treatment Evaluation**

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Background: *Dientamoeba fragilis* (DF), a gastrointestinal protozoa, has been an emerging pathogen since the introduction of new Multiplex PCR stool tests. This parasite is associated with gastrointestinal symptoms, yet its pathogenicity is still controversial.

Objectives: To assess the clinical aspects, and treatment response, of all patients positive for DF by PCR who were seen in our center.

Methods: All symptomatic patients with stool PCR positive for DF alone (or co-infected with *Blastocystis* spp) during 2017 - 2022 were included.

Clinical data are presented for all. Treatment regimen was given according to the treating physician decisions. Response to treatment was evaluated in patients who repeated post-treatment second molecular stool test. Clinical cure was defined as resolution of symptoms following treatment course. Molecular response was defined as PCR result for DF following any of the treatment courses. Clinical and molecular response was evaluated about one month following treatment course

Results: During the study period 106 patients were eligible, 52.8% were female. In 47.2% the infection was acquired in relation to international travel. Adult population (83%) has a median age 39 years old, while pediatric population has a median age of 8.5 years old. 98.1% had gastro-intestinal (GI) symptoms, 72.6% loose stools, 72.6% abdominal pain and 45.3% bloating.

Extra-intestinal complaints were observed including fatigue (46.2%), eosinophilia (14.2%), pruritus-ani (8.5%), and perianal rash (5.7%),

122 treatment courses with clinical responses and 95 with molecular responses were recorded.

Clinical cure with nitroimidazoles-based regimen achieved in 22.1% vs. 78.2% by paromomycin treatment ($p < 0.0001$). Molecular cure rate was 14.6% in nitroimidazoles-based regimen vs. 90.5% after paromomycin-treatment ($p < 0.0001$). Clinical cure was strongly associated with molecular eradication of the parasite, occurred in 97.6%, while only occurred in 9.1% with molecular failure ($p < 0.0001$).

Conclusions: Our results support DF as being pathogenic protozoa since there was a correlation between DF eradication and clinical cure. DF should be considered in cases of persistent abdominal symptoms, and in addition is causing extra-intestinal symptoms, unusual in other GI protozoa infection. Paromomycin should be the preferred treatment option.

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Influence of Host Nutriome on Immunological Control of *Leishmania* Infection

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Background: Immunologic control of parasitic infections arises from a combination of humoral and cellular mechanisms, both of which may be influenced by host nutritional status. Micronutrient depletion or over-repletion impairs the functioning of the immune system, potentially resulting in increased susceptibility to and poor immunologic control of protozoal infections.

Objectives: We aim to synthesize the knowledge surrounding the interplay between host micronutrient status and *Leishmania* infections. Leishmaniasis is a tissue-dwelling parasitic infection in which disease severity is determined by the host's immune system. Research suggests that acquired