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An Update on the Role of Imaging in the Care of Patients with Intestinal Schistosomiasis

S. Yeung[1,2], R. Lau[3], M. Klowak[2,4], C. Madakadze[5], L. Makhani[2], A.K Boggild[2,4,6]
[1]McMaster University, Medicine, Hamilton, Canada, [2]Toronto General Hospital, Tropical Disease Unit, Toronto, Canada, [3]Public Health Ontario Laboratories, Toronto, Canada, [4]University of Toronto, Institute of Medical Science, Toronto, Canada, [5]Toronto General Hospital, Tropical Diseases Unit, Toronto, Canada, [6]University of Toronto, Department of Medicine, Toronto, Canada

Background: Schistosomiasis leads to significant morbidity and mortality worldwide, including severe hepatic disease with peri-portal liver fibrosis, portal hypertension and subsequent esophageal varices. Previous studies recommended the use of abdominal imaging to detect early hepatic changes, thereby improving disease outcome. However, there are no recently published or authoritative resources to guide the utilization of imaging in the initial diagnosis of schistosomiasis.
Objectives: We aim to synthesize available literature regarding the role of imaging in the evaluation of patients with schistosomiasis and synthesize clinical recommendations for risk stratification of this disease.
Methods: Eight electronic databases were searched: Ovid Medline, EMBASE, Cochrane Library of Systematic Reviews, Epistemonikos, Global Health, NICE, TRIP and LILACS with the following search terms: [Schistosomiasis OR (Schisto* AND (mansoni OR japonicum))] AND [CT OR (computed AND tomography) OR Ultraso* OR Sonogr* OR MRI OR (Magnetic AND resonance AND Imaging) OR Echo OR Imaging] AND [Liver OR periportal OR peri-portal OR fibrosis OR hepat* OR echogenic* OR (portal AND hypertension)] from database inception to February 28, 2019.
Results: A total of 2977 articles were identified; 1838 articles remained after deduplication. After title, abstract and full text screening by two independent reviewers and a tertiary arbitrator, 603 articles remained for full text assessment for eligibility, and after full text screening there are 404 articles for data extraction. Preliminary qualitative analyses were performed on 11 observational studies, with 9 being cross-sectional studies and 2 case control studies. There were 7 studies from Brazil and one study from Senegal, Madagascar, Zimbabwe and Tanzania, respectively. *Schistosoma mansoni* were diagnosed in patients from these settings and abdominal ultrasound was performed on the liver. Of the 4,172 participants examined, the prevalence of periportal fibrosis was between 19 to 100% across the studies.
Conclusions: Synthesizing the current literature on abdominal imaging in the evaluation of schistosomiasis can translate into clinical recommendations for improved risk stratification and management of schistosomiasis.

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Reactivation of Old World Tegumentary Leishmaniasis Following Iatrogenic Immunosuppression: Occurrence and Role for Secondary Prophylaxis

A. B Vidal[1], C. Lo[2], A. Adawi[1], I. Adeyinka[1], K. Tan[1], R. Mahmood[1,3], M. Klowak[1,3], A. K Boggild[1,3,4]
[1]Toronto General Hospital, Tropical Disease Unit, Toronto, Canada, [2]University Health Network, Transplant Infectious Diseases and Ajmera Transplant Centre, Toronto, Canada, [3]University of Toronto, Institute of Medical Science, Toronto, Canada, [4]University of Toronto, Department of Medicine, Toronto, Canada

Background: Old world cutaneous leishmaniasis (OWCL) is a neglected tropical disease caused mainly by the species *L. donovani, L. aethiopica, L. tropica, L. major* and *L. infantum.* Recent increases in global migration, travel, and climate change have contributed to the growing burden of OWCL. Moreover, the widespread availability of iatrogenic immunosuppression (IS) can increase the risk of reactivation and severe disease manifestations due to weakened immunological control. Currently, the role for secondary prophylaxis in preventing such outcomes is unknown.
Objectives: We synthesized the available data surrounding OWCL reactivation and corresponding IS regimens. We also investigated the role of secondary prophylaxis in preventing the reactivation of OWCL leishmaniasis for patients requiring immunosuppressive therapy to reduce the knowledge gap in disease management.
Methods: PubMed, Medline, Embase, Web of Science, and LILACS were searched between inception to December 12, 2022, with combinations of the search terms "*Leishmania* reactivation",

"Leishmaniasis" and "Immunotherapy". Quality assessment of studies reporting therapeutic interventions will be conducted using the GRADE approach.
Results: 1297 full texts have been assessed for eligibility, 55 of which progressed to data extraction. Visceral and cutaneous leishmaniasis were shown to be the most common forms of reactivation in transplant recipients and inflammatory disease patients receiving IS regimens, respectively. Moreover, three case studies report the use of secondary prophylaxis to prevent OWCL reactivation. Two of those cases presented successful prevention while one case resulted in failure as three subsequent recurrences ensued.
Conclusions: The role of secondary prophylaxis in the context of OWCL remains inconclusive due to the dearth of data around this topic. Thus, this systematic review aims to further investigate the role of secondary prophylaxis to provide the necessary information required by healthcare providers in guiding the clinical management of this patient population.

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Where Do Travellers Go? Using Digital Geolocation Data to Understand the Risks of Travel to Remote Places in Common Tourist Destinations

A. Farnham[1,2,3], U. Blanke[4], O. Veit[1,2,3,5], M.A. Puhan[1], J. Fehr[1], C. Hatz[1,2,3], S. Bühler[1,6]
[1]Epidemiology, Biostatistics, and Prevention Institute, University of Zurich, Public Health & Global Health, Division of Infectious Diseases, Zurich, Switzerland, [2]Swiss Tropical and Public Health Institute, Allschwil, Switzerland, [3]University of Basel, Basel, Switzerland, [4]ETH Zurich, Swiss Federal Institute of Technology, Zurich, Switzerland, [5]Geneva University Hospitals, Division of Tropical and Humanitarian Medicine, Geneva, Switzerland, [6]Institute of Hygiene and Environment, Division of Hygiene and Infectious Diseases, Hamburg, Germany

Background: The degree to which travellers visit disease endemic and remote regions in common tourist destinations remains unknown. The ability to geo-locate traveler itineraries in real-time using smartphone applications offers new opportunities to link health and environmental exposures.
Objectives: To (i) identify and describe the travellers that actually visit malaria endemic regions in six common tourist destinations, and (ii) determine whether travellers that visit remote areas have increased incidence of adverse health outcomes during their trips.
Methods: We recruited a prospective cohort of 1,000 travellers ≥ 18 years planning travel to Thailand, India, China, Tanzania, Brazil, or Peru for <5 weeks from the travel clinics in Zurich and Basel (Switzerland). Participants answered demographic, clinical, and risk behavior questionnaires pre-travel, and a daily health questionnaire each day during travel using a smartphone application. Environmental, social media, and location data were collected passively by GPS. To define high risk malaria areas, we used the malaria maps from the Swiss Expert Committee for Travel Medicine (www.healthytravel.ch). Rural areas were defined according to the Global Human Settlement Model Grid.
Results: Of the 793 travellers that completed the study, 242 (31%) visited a region defined as high risk for malaria. In Tanzania, 100% (n=225) visited a high-risk malaria area; in Peru, 6% (n=6); in Brazil, 4% (n=8); in Thailand, 2% (n=3); in India and China, 0%. None were clinically diagnosed with malaria during the study period. Among travellers visiting high-risk malaria areas, incidence of subsequent symptoms was lower than that of travellers that did not visit a high-risk malaria area (11% reported fever vs. 19%, 52% headache vs. 68%, and 27% muscle pain vs. 41%). Among the 396 travellers (50%) that visited rural areas, the incidence of fever (RR: 2.2, 95% CI: 1.5, 3.0) and diarrhea (RR: 1.3, 95% CI: 1.1, 1.4) was significantly elevated compared to travellers that remained at urban