ACCTMTH Clinical Group

AMERICAN COMMITTEE ON CLINICAL TROPICAL MEDICINE AND TRAVELERS' HEALTH

ISSUE 3 | Oct 2024

NEWSLETTER

IN THIS ISSUE ▶

Note from the President

Dear Clinical Group Members,

I hope you had a nice summer and got some down time. Amazingly, we are less than 1 month from the Annual Meeting in New Orleans. I'm really looking forward to this, I recently reviewed the scientific program and it's going to be a fantastic meeting. There will be a Clinical Group session at every block this year and we have four Meet the Professor sessions, one will have in-person trainee case presentations from Peru, Singapore and UK/Ghana, hopefully you can attend these because we reviewed the cases during the award process and I think they are outstanding.

Other Clinical Group highlights include the super fun Pub Trivia Night event Thursday evening which allows for some informal mentoring and networking opportunities especially for trainees and our Marcolongo speaker Professor Meta Roestenberg from Leiden University talking about Schistosomiasis. There is a broad range of interesting material this year including sessions on migrants in the Darien Gap, tropical kidney injury, Ebola sequelae, malaria and sickle cell disease (SCD), recent vaccines, Echinococcus, and the always popular literature update, Yellow Book update, and clinical debate sessions as well as lots of oral clinical abstract sessions.

The month of October marks the CTropMed® exam, and the Clinical Group offered is offering an excellent opportunity for exam review. The Update Course in Clinical Tropical Medicine & Travelers' Health run by Clinical Group Members Aisha Khatib & German Henostrosa was delivered virtually on September 27th and 28th; it was a great way to prepare in addition to being a great value especially for trainees and members. It features many world-class lecturers.

Finally there will be one more Clinical Group webinar coming on Careers in Tropical Medicine In early December. Good luck with your meeting preparations and I look forward to seeing you in New Orleans!

Warm regards,
Dr. Kyle Petersen
President, ACCTMTH
kyle.petersen@usuhs.edu

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American Society of Tropical Medicine and Hygiene (ASTMH)
241 18th Street South, Suite 501
Arlington, VA 22202 USA
+1-571-351-5409

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Tips? Content ideas? Send them our way!

charles.tiu@u.duke.nus.edu
thieln@uw.edu

Annual Meeting 2024 Reminder

November 13-17, 2024 (Wednesday through Sunday)
New Orleans Ernest N. Morial Convention Center
New Orleans, Louisiana

The date of the ASTMH Annual Meeting is approaching quickly, so remember to register! The ASTMH room block is open until October 18th. ASTMH has contracted with 4 hotels in New Orleans within walking distance of the New Orleans Convention Center. The contracted nightly rates will range from $285-$289 plus tax.

A few Clinical Group programs to look forward to:

Vincenzo Marcolongo Lecture: Schistosomiasis: insights into immunology and treatment from human challenge studies, Thursday Nov. 14, 10:15 am- 12 pm

Health Inequities of Migrants Crossing the Darien Gap, Friday Nov. 15, 8-9:45 am

Meet the Professors: Challenges in Diagnosis and Management of Clinical Tropical Medicine, Friday Nov. 15, 2024, 4:00 pm - 5:45 pm

CDC Yellow Book Travel Medicine Update, Saturday Nov. 16, 8-9:45 am

Upcoming Webinar

Thank you to everyone who attended the recent Clinical Student Trainee Leadership Group's webinar on Oropouche. The group will be hosting one more exciting webinar this year! Stay tuned for more details on this informative, panel-style talk on pursuing different, rewarding careers in tropical medicine. The webinar will occur in early December and feature speakers who have worked for federal, international, and NGO groups in tropical medicine settings around the world.

Reader's Corner: An Interview with Dr. Jill Weatherhead

Tell us about yourself.

I am originally from Michigan, USA and went to a small liberal arts school in Kalamazoo, MI called Kalamazoo College for undergrad and then subsequently went to Michigan State University College of Human Medicine for medical school. I came down to Houston, TX to complete a combined Internal Medicine and Pediatric Residency at Baylor College of Medicine and Texas Children's Hospital and stayed to complete a combined fellowship in adult and pediatric infectious diseases. During fellowship, I began studying how parasites interact with the host immune system to cause end organ disease and really enjoyed working in a basic science lab. Based on this experience in fellowship, I went on to complete a PhD at Baylor College of Medicine with a focus on Immunoparasitology. I also completed the Diploma of Tropical Medicine at Baylor College of Medicine and the ASTMH CTropMed®. I'm board certified in internal medicine, pediatrics, adult infectious diseases and pediatric infectious diseases. As a faculty member at Baylor College of Medicine and Texas Children's Hospital I work in research, education and clinical care. I currently have a translational research laboratory that studies the impact of parasitic infections, particularly helminths, on the development of immune-mediated end organ disease and develops diagnostic immunoassays against common parasitic infection. I serve as the Assistant Dean for the National School of Tropical Medicine at Baylor College of Medicine which offers educational programs for all levels of learners interested in tropical medicine including our Diploma of Tropical Medicine Course. I am also the director of our Adult and Pediatric Infectious Disease Fellowship track in Tropical Medicine and Global Health at Baylor College of Medicine and Texas Children's Hospital. I absolutely love teaching and engaging with learners interested in parasitology, tropical medicine and global health. I also enjoy building more inclusive, equitable education programs for our institution. Clinically, I am the Director of the Pediatric Tropical Medicine Clinic at Texas Children's Hospital and also see patients in the Adult Tropical Medicine Clinic in Harris Health Systems, Harris County Safety Net Hospital System. Clinically, I specialize in parasitic infections as well as infections related to travel and immigration.

Do you have any hobbies? What do you love doing in your free time?

I'm an avid sports fanatic. I love to play and watch all sports but particularly soccer. I also love to run and exercise especially outside if it's a beautiful warm Houston day! One of my most important and life-altering hobbies is traveling around the world with my family. I enjoy exploring new regions of the world with my young children and spouse. This past summer we spent several weeks in Honduras and Mexico City and this fall we will be going to El Salvador.

Why did you choose tropical medicine and what did your journey look like?

My junior year of college I decided to complete a year of university in Quito, Ecuador.

While living in Quito, I did an observership in an emergency room at a public hospital. During my observership, I began learning about infectious diseases that disproportionately impact persons living in low resource areas within tropical and subtropical climates. Upon my return to the US while finishing college and starting medical school, I volunteered as a Spanish translator for a mobile health clinic that provided free medical care to migrant farm workers in West Michigan. During this experience, I learned about providing health care to migrating populations and identified important health outcomes associated with immigration. These experiences led me to a career in infectious diseases and an interest in how geography and migration shape a person's health or the health of a community. I subsequently continued my training at Baylor College of Medicine and Texas Children's Hospital in Houston, Texas. I routinely diagnosed and managed both imported and autochthonous cases of neglected tropical disease. It was during my time caring for patients in Houston that solidified my interest in parasitology. The beginning of my journey in Tropical Medicine was mostly focused on exploring health care outside of the United States. I spent a significant amount of my training in medicine and science in other regions of the world learning from local experts. Besides Ecuador, I spent time learning and observing from local experts in Bolivia, Peru, Zambia, Botswana and Nepal. However, once I began practicing and teaching in Houston, I found that a lot of the disease processes that I had learned about through international training were also occurring in Houston. People who had never left Houston were infected with neglected tropical diseases including soil-transmitted helminths, neurocysticercosis and zoonotic infections like *Toxocara* and *Dipylidium*. Additionally, we take care of patients that have recently settled in Houston from low resource regions or had recently returned from visiting friends and family in low resource regions within tropical areas. These experiences in Houston shaped my career to focus on caring for patients here in the US south and educating healthcare professionals on the risk of tropical diseases in our area.

Do you have any advice to trainees out there who are keen to pursue tropical medicine?

My advice for trainees is to always think outside of the box and never be afraid to try new things. When you push yourself outside of your comfort zone or explore new career paths, you may find your passion. I would have never imaged I would be doing basic science parasitology work but during fellowship I decided to give it a try just to say I did it and turns out I loved it.

Is there anything you particularly love about Tropical Medicine?

My favorite thing about Tropical Medicine is how it connects healthcare professionals from all over the world. In fact, it requires the input of everyone globally to educate each other and to share resources in order to provide the best care we can to our patients.

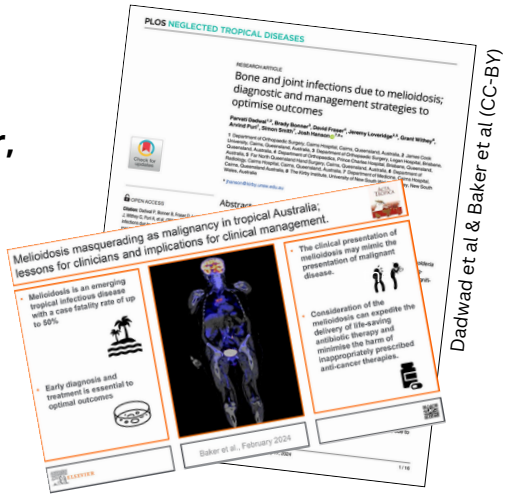
If you were to pick one favorite bug (vector, parasite, virus or bacteria), what would it be and why?

I am a parasitologist and have a passion for helminths, particularly soil-transmitted helminths. But by far the most fascinating pathogen is *Strongyloides*.

ACCTMTH's Spot On

Edited by Ralph Huits, MD, PhD
ACCTMTH Councilor

As a new, recurring feature in our Newsletter, we would like to share recent peer reviewed papers that caught our attention.



Dadwad et al & Baker et al (CC-BY)

We encourage you to submit your comments on articles in the field of travel or tropical medicine that you think may be of interest to our readership.

Melioidosis is a potentially life-threatening infection caused by the gram negative bacterium *Burkholderia pseudomallei*, that is found in soil and water of tropical and subtropical regions worldwide. Melioidosis can involve almost any organ, leading to treacherous clinical presentations. The disease is estimated to cause nearly 90,000 deaths a year globally (Savelkoel et al 2022), and 4.64 million disability-adjusted life-years. In the issue of ACCTMTH's Newsletter, the Spot is On 2 recent publications on melioidosis (Dawdal 2024 and Baker 2024).

Papers Reviewed:

1. "Bone and joint infections due to melioidosis; diagnostic and management strategies to optimise outcomes", by Dadwal et al (2024) published in PLoS Neglected Tropical Diseases.

Summary: Bone and joint infections (BJI) are relatively common but incompletely defined manifestations of melioidosis. Dadwal and co-authors tracked the records of all individuals with BJI due to *B. pseudomallei* managed at Cairns Hospital in tropical Australia between January 1998 and June 2023. They identified 477 culture-confirmed cases of melioidosis, 39 (8%) had confirmed BJI. The median age of this group was 52 (IQR 42–57) years (no children). Fourteen (36%) had osteomyelitis (OM), 8 (20%) had septic arthritis (SA) and 17 (44%) had both osteomyelitis and septic arthritis (OM/SA); in 32/39 (83%) the lower limb was involved. *B. pseudomallei* bacteraemia was present in 31/39 (79%), and 29 of 39 (74%) individuals with BJI had infection involving other organs. In a multivariable analysis of risk factors, only diabetes mellitus was independently associated with the presence of BJI (vs. melioidosis without BJI, Odds Ratio (95% confidence interval): 4.0

All patients received intensive intravenous antibiotic treatment with ceftazidime or meropenem, for mean durations of 6.3 weeks (OM), 4.6 weeks (SA), and 6.2 weeks (OM/SA). All patients received oral eradication therapy for mean durations of 5.4 months (OM), 4.9 months (SA), and 6.2 months (OM/SA). Trimethoprim-sulfamethoxazole (in high dose) was the initial eradication therapy of choice. However, adverse drug reactions necessitated a change to a second-line agent in

4 (10%), and extended intravenous meropenem therapy in one. Surgery was performed in 77% of cases. ICU admission (n=11, 28%), readmission after the initial hospitalisation (n=11; 28%), disease recrudescence (n=5, 13%) and relapse (n=3, 8%) were common, and 4/39 (10%) developed pathological fractures. Only one patient died due to underlying comorbidity, 138 days after admission.

2. **"Melioidosis masquerading as malignancy in tropical Australia; lessons for clinicians and implications for clinical management", by Baker et al (2024) published in Acta Tropical.**

Summary: In this series of concise and instructive case reports (also from tropical Australia), Baker et al. describe the clinical management of 7 patients who were eventually diagnosed with melioidosis, only after initial work-ups for cancer (most commonly lung cancer).

All patients had comorbidities that predispose to melioidosis (diabetes, chronic lung disease, low-grade lymphoma or lung disease). All survived, but delayed diagnosis resulted in three patients receiving anti-cancer therapies and significant iatrogenic morbidity. The challenges of diagnosing *B. pseudomallei* infections are discussed, including longer incubation times to blood culture positivity than for most pathogenic bacteria, the benefits of tissue biopsy and culture in the appropriate clinical context, and of PET scanning.

Context: Despite the potential severity of *B. pseudomallei* infections and associated mortality, melioidosis remains an underdiagnosed infection. The studies by Dadwal and Baker demonstrate the significant morbidity associated with melioidosis, but they also highlight the difficulties in diagnosing melioidosis, and the importance of early and accurate diagnosis by thorough diagnostic evaluation and repeated collection of microbiological samples.

Melioidosis most frequently involves the lungs, although almost any organ can be affected. The need for a multidisciplinary approach in the clinical management of melioidosis is emphasized, and should includes timely surgical consultation, aggressive source control, prolonged antibiotic therapy, and thorough, extended follow-up. While case-fatality from melioidosis in health systems like Australia's is low, case-fatality rates of up to 50% have been reported in low-resource settings. The disease causes a larger burden than many officially recognized neglected tropical diseases (NTDs). A call has been made for melioidosis to be recognized as a NTD by the World Health Organization, to improve melioidosis awareness, surveillance, diagnosis, and management.

Further Reading

1. Meumann, E.M., Limmathurotsakul, D., Dunachie, S.J. et al. Burkholderia pseudomallei and melioidosis. Nat Rev Microbiol 22, 155–169 (2024).

This excellent review summarizes the global burden of melioidosis, and highlights the associations of increasing frequencies of *B. pseudomallei* infections with ecological disruptions, extreme weather events and climate change. The endemicity of *B. pseudomallei* in newly recognized regions (including the southern United States), associations of comorbidities such as diabetes, and socioeconomic determinants of the disease are discussed, as well as current diagnostic, treatment and preventive recommendations, including vaccine candidates that are under development.

2. Norman FF, Chen LH. Travel-associated melioidosis: a narrative review. J Travel Med. 2023 May 18;30(3):taad039.

Travelers can act as sentinels of disease activity, and data from imported cases may fill in the gaps in mapping the global distribution of melioidosis, that seems to be expanding. Norman and Chen reviewed peer reviewed publications on imported melioidosis based on a search in PubMed and Google Scholar for the period from 2016 to 2022. They identified 137 travel-associated melioidosis cases. The majority were males (71%), and the geographic regions of exposure were Asia (77%) (mainly Thailand, 41%, and India, 9%), Americas–Caribbean area (6%), Africa (5%) and Oceania (2%). The most frequent comorbidities were diabetes mellitus (25%), underlying pulmonary, liver or renal disease (8, 5 and 3%, respectively), alcohol/tobacco use (5%), and immunosuppression (non-HIV, n=5 (4%) and HIV-associated, n=3 (2%). The most frequent clinical presentations in these returning travelers included pneumonia (35%), sepsis (30%) and skin/soft tissue infections (14%), and symptoms developed within 1 week after return in 55%, and more than 12 weeks after returning in 29%. Following treatment, 87% of patients survived.

3. Sullivan RP, Marshall CS, Anstey NM, Ward L, Currie BJ. 2020 review and revision of the 2015 Darwin melioidosis treatment guideline; paradigm drift not shift. PLoS Negl Trop Dis 2020;14:e0008659.

For treatment recommendations, the reader is referred to the 2020 Revised Darwin melioidosis guideline, discussed in the paper by Sullivan.

How to contribute to Spot On?

We encourage you to submit your comments on articles in the field of travel or tropical medicine that you think may be of interest to our readership.

Please submit comments or entries to Ralph Huits (RHuits@geosentinel.org).

Twitter Case Recap

The Clinical Group publishes riveting tropical medicine clinical cases on X (formerly known as Twitter). In this series, we select one of the recently published Twitter Cases on ***Sparganosis***.

The Case

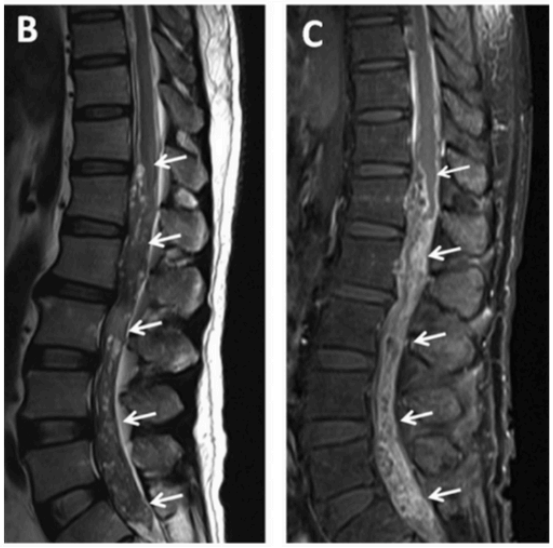
A 54yo man from Khon Kaen, Thailand presented with 10 months of lower back pain, 4 months of weakness and numbness of the left leg, and 3 weeks of urinary incontinence. He had mild atrophy of the left lower extremity, hyporeflexia, and reduced anal sphincter tone.

Blood count, including eosinophils, as well as liver and renal function, was normal. MRI of the T- and L-spine with gadolinium showed a 1.2 × 2.3 × 19.8 cm heterogeneous enhancing mass at the T12-S1 level (Fig 1 B: T2WI and C: gadolinium-enhanced T1WI with fat suppression).

Laminectomy at L4 & L5 revealed a mass with small cystic lesions in the subarachnoid space which was partially removed. H&E staining showed degenerative connective tissues with a thick eosinophilic tegumental structure (Fig 2, arrow) and several calcareous corpuscles (Fig 2, arrowhead)

Which parasite was found on biopsy?
A. *Taenia solium*
B. *Spirometra erinaceieuropaei*
C. *Echinococcus granulosus*
D. *Schistosoma japonicum*

Fig 1.

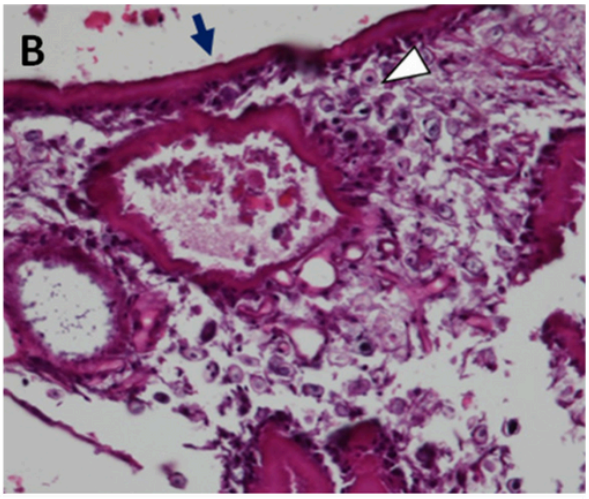


Case Response

Histologic examination and PCR of tissue confirmed spinal sparganosis caused by *Spirometra erinaceieuropaei* ***(Answer: B).*** Symptoms worsened post-op & the patient was given Praziquantel (3×25 mg/kg daily) for 7 days. Recovery of motor function was limited after 2 years.

Sparganosis is caused by migration of plerocercoid larvae (sparganum) of tapeworm Spirometra. Humans are accidental intermediate hosts and can be infected by drinking water with copepods containing procercoid larvae or by ingesting undercooked snakes, frogs or birds.

Fig 2



To read more about this case, visit:
https://doi.org/10.4269/ajtmh.20-0712

Cases found mainly in China, Japan, Korea, and sporadically in Thailand. Larvae can migrate anywhere in the body. Clinical signs include painless subcutaneous nodules. CNS manifestations are pain, weakness, numbness & seizures. Cauda equina syndrome is rare.

MRI may show an unspecific heterogeneous mass. Diagnosis is made by recovery of a sparganum from infected tissue. ELISA for anti-sparganum antibodies and PCR are also used. Treatment is with surgical removal of worms. Praziquantel can be given as an adjunct.

Are you up for some challenge (and swag)?

Join our Trivia Night!

Clinical Pub Trivia Night.

Thursday, November 14, 2024, 7:30 pm - 9:15 pm.
Hilton - Churchill A1 (2nd Floor)

Come join us for some trivia (not trivial) fun at this year's Annual Meeting. Organized by the Clinical Group, the Clinical Pub Trivia Night is an opportunity for you to showcase your knowledge about Tropical Medicine, Medicine and General Trivia. Compete against fellow attendees to see which team gets the top prize. Winners get to take home some Clinical Group Swag and bragging rights.

Join us! The event is free to all Annual Meeting Attendees. Some snacks will be provided. Register using the QR Code and link on this page. Walk-ins welcome.

Registration Link
https://tinyurl.com/pubtrivia2025 ▶▶

Meet the Three Clinical Case Competition Presenters

This year, the Clinical Group (CG) is sponsoring three trainees for present interesting tropical medicine cases during the Annual Meeting. Hailing from Singapore, Peru and the United Kingdom, these outstanding trainees were selected from 32 applicants. Their cases range from a bacterial infection, a viral infection with complications, and a parasitic infection. We are very excited and we got in touch with them one month before the Annual Meeting.

A Case of Melioidosis: Dr. Clive Martin Rodrigues

Dr. Clive Martin Rodrigues is a first year Internal Medicine resident in South London. He received his medical degree in Bangalore, India, and also holds a Diploma in Tropical Medicine & Hygiene. Dr. Rodrigues previously worked as a Clinical Fellow in Infectious Diseases and Clinical Microbiology, and in the Department of Renal Medicine at King's College Hospital, London.

CG: Why did you choose Tropical Medicine and Infectious Diseases?
Dr. Rodrigues: My interest in Infectious Diseases and Tropical Medicine stems from my experiences in tropical regions and witnessing the significant impact of infectious diseases, especially in marginalized communities.

Working with MSF in India, particularly in a malaria-endemic area, has provided me with invaluable experience managing such conditions in resource-limited settings. Notably, I was actively involved in an anthrax outbreak investigation, where I contributed to the clinical response, further honing my skills in outbreak management.

This field, in addition to nurturing my medical knowledge, will allow me to provide excellent hospital care while also giving me opportunities in making a meaningful impact on public health, especially in underserved communities.

Image courtesy of Dr. Clive Martin Rodrigues

CG: Can you tell us more about your case?
Dr. Rodrigues: The case involved a 56-year-old woman with end-stage renal disease on hemodialysis, who presented with fever but no localized symptoms. She had a recent travel history to Ghana, but no known exposure to farmlands or animals. Initial blood cultures grew species of *Burkholderia*, which was identified as *Burkholderia thailandensis* using MALDI-TOF MS. It was initially presumed to be a contaminant, but the isolate was sent to a reference laboratory for confirmation. It was then identified as *Burkholderia pseudomallei* by PCR, diagnosing her with melioidosis. She was treated with IV ceftazidime post-dialysis, followed by a 20-week course of co-trimoxazole. The patient recovered with no recurrence of infection, emphasizing the importance of accurate diagnostics and tailored treatment for optimal outcomes.

CG: What fascinates you about your case?
Dr. Rodrigues: This case was intriguing due to the initial misidentification of the species by MALDI-TOF MS, the emergence of the disease in a non-endemic region, and the patient's unusually mild presentation. It highlights the importance of accurate diagnostics and early intervention in preventing severe outcomes.

Editor's Note: Do you want to learn more about Melioidosis? The Clinical Group recently hosted a webinar about this topic. Visit GOTRopMEd (**link**) for a recording.

A case of HTLV-1 Associated Myelopathy/Tropical Spastic Paraparesis: Dr. Gabriela Garrido Pinzás

Our next Presenter is **Dr. Gabriela Garrido Pinzás**. She is a Clinical Research Fellow at the *Instituto de Medicine Tropical "Alexander von Humboldt"* (IMTAVH) at Lima, Peru. A graduate of the Universidad Peruana Cayetano Heredia (UPCH) in Lima, Peru, Dr Gabriela's current research work involves Human T-lymphocytic Virus 1 (HTLV-1). HTLV-1 is a retrovirus associated with malignancy T-cell leukemia, and myelopathies – as in this case.

CG: Why did you choose Tropical Medicine and Infectious Diseases?
Dr. Gabriela: I'm planning to pursue a fellowship in Infectious Diseases in the near future, and I think a few things lined up perfectly for me to choose this path. As I mentioned, I studied at UPCH, which has some real advantages. For starters, we're right next to Hospital Cayetano Heredia, a major referral hospital in Peru with an amazing Department of Infectious, Tropical, and Dermatological Diseases. As a medical student, I loved being just a few steps away from the tropical medicine ward, which was always full of interesting cases. Another great perk of my university is having the IMTAVH, which is located inside the hospital, right next to the tropical medicine ward.

During med school, I got to interact with patients for the first time in the "History Taking and Physical Examination" course. For this course, I was placed in the tropical medicine ward, and my teacher was


Image courtesy of Dr. Gabriela Garrido Pinzás

Dr. Pedro Legua, an international expert in leprosy! My early patient interactions included patients with leprosy, malaria, Kaposi's sarcoma, and more. I'm not exaggerating when I tell you that I was in awe of the cases I saw every day. Of course, Dr. Legua guided us through the hospital in search of murmurs, wheezes, and other findings, so my training during that year was very comprehensive.

Since that year, I've dreamed of working at *Instituto de Medicina Tropical*. I've always loved writing and have always been interested in doing research alongside clinical practice. So, well, months before graduating, I started looking for a job, and now I have the amazing opportunity to work with Dr. Gotuzzo (Editor's note: Dr. Eduardo Gotuzzo is Dr. Gabriela's supervisor) doing what I love!

CG: Can you tell us more about your case?
Dr. Gabriela: Of course. It's about a 30-year-old patient with rapidly progressive HTLV-1-associated myelopathy/tropical spastic paraparesis (HAM/TSP), who started developing neurological symptoms and was using a wheelchair only six months later.

This patient appeared out of the blue one day, and I panicked. He was a 30-year-old engineer who, just seven months ago, was walking and running, and now he was in a wheelchair! I did what I usually do: I enrolled him in my research program, which

involves (1) screening for HTLV-1 infection, (2) confirmation of HTLV-1 via proviral load (PVL) quantification, and (3) screening and PVL quantification of the patient's family members.

After taking his clinical history and doing a physical exam, I contacted the residents from the tropical medicine ward to see if they had a bed available. Even though I didn't have HTLV-1 confirmation yet, the clinical presentation and the previous positive serologic tests were convincing enough for us to act quickly, considering we live in an endemic area. It's tough to get a bed in a public hospital like ours, so we had to take the patient to the emergency room to get him admitted. The plan was to start pulsed methylprednisolone right away, since in the early phases, it can slow progression. And that's what we did.

CG: What fascinates you about your case?
Dr Gabriela: Well, first of all: the patient is walking again. He uses a cane outside his home, but inside, he's getting around just fine on his own. I wanted to share this case because there aren't any official guidelines for managing this disease. HTLV-1 is uncommon, HAM/TSP is uncommon, and the rapidly progressive presentation is even more uncommon!

Second, as I mentioned, I do full family studies for all our patients. I started screening the patient's mother, who tested negative. He didn't have any history of blood transfusions or cross-nursing, so sexual transmission was the most likely route. He also mentioned that he had developed scaly, pruritic lesions in the retroauricular area about a month before the onset of symptoms, which made us think about adult-onset infective dermatitis. In the words of Dr. Gotuzzo — who has been working with HTLV-1-infected patients for over three decades — adult-onset infective dermatitis is indicative of infection during adulthood.

We screened his partner of two years, and she tested positive. He had other past partners, but we couldn't screen them. His longest relationship lasted four years, and we suspect that's the source. Of note, sexual transmission, especially from female to male, takes time.

Before his HTLV-1 diagnosis, he went from doctor to doctor without a proper diagnosis. If he hadn't made it to us, we wouldn't have been able to slow the disease's progression. Now, the patient comes to the unit every month or so, and I'm happy to see him walking again!

A Case of Paragonimiasis: Dr. Wilson Goh

Image courtesy of Dr. Wilson Goh

Last, but not the least, we have **Dr Wilson Goh**, a senior Infectious Diseases resident at the National University Hospital in Singapore. He finished medicine at the Yong Loo Lin School of Medicine at the National University of Singapore and have completed a three-year training in internal medicine. Dr Wilson's case is that of a parasitic infection caused by the trematode *Paragonimus*. The U.S. Centers for Disease Control has an excellent short page describing Paragonimiasis, accessible here.

CG: Why did you choose Tropical Medicine and Infectious Diseases?
Dr Wilson: I am particularly drawn to the fields of infectious diseases and tropical and travel medicine, and I am eager to learn more about these areas.

CG: Can you tell us more about your case?
Dr Wilson: My case that I encountered and managed was about a 26-year-old female presenting with headache, peripheral eosinophilia with meningeal enhancement and intracranial vasculitis on imaging. CT scan of her thorax showed a nodular lesion with central fluid in the right lower lobe of the lung. A few days later, she presented with acute intraparenchymal hemorrhage in the right frontoparietal lobes with impending hydrocephalus and was admitted to the intensive care unit. Given her critical state, it was imperative for us to quickly unravel the diagnostic enigma that also required input from multiple specialties. She was eventually diagnosed with paragonimiasis and recovered well with targeted treatment.

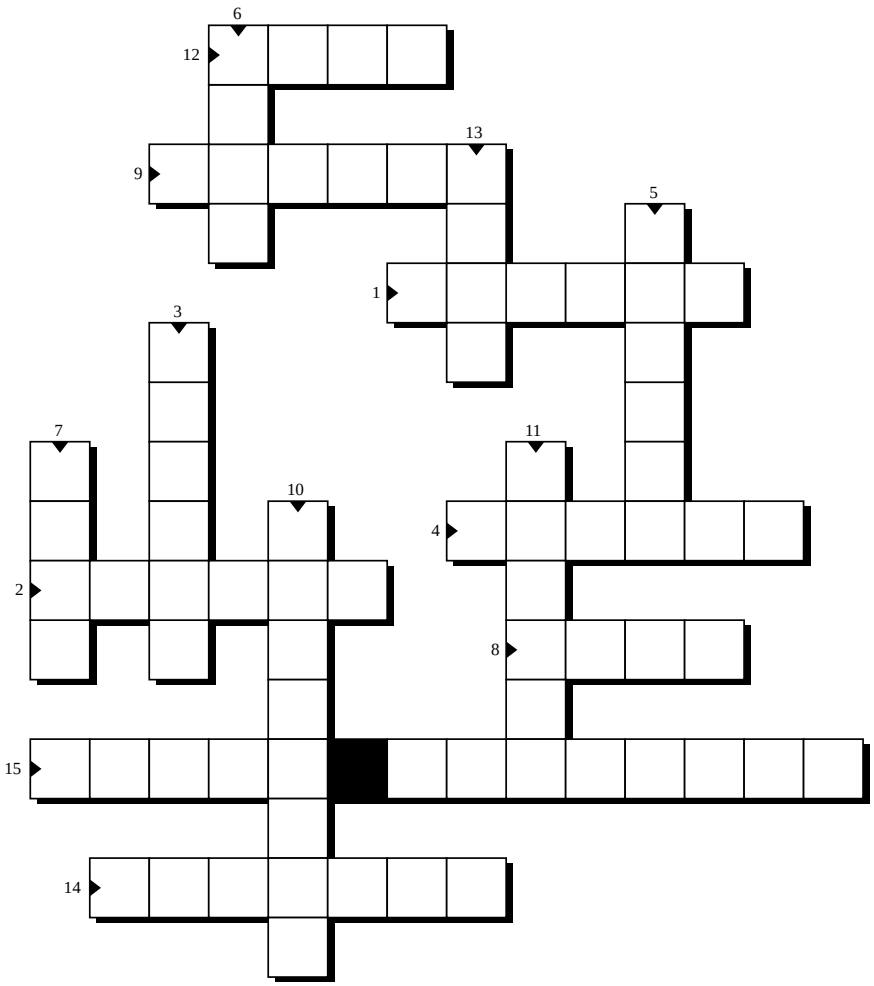
In our hospital, cases are referred to the senior residents who will review the case together with the consultant. I was the senior resident who was referred (as I was on duty that day). I was subsequently in charge of managing and following up with her case from her time of admission to her discharge.

CG: What fascinates you about your case?
Dr Wilson: I found this case particularly interesting due to the rarity of parasitic infections in Singapore. In addition, this case underscores the importance of a thorough clinical history and evaluation in diagnosing unusual conditions such as eosinophilic meningitis as our patient was originally from northeastern India and she had consumed raw seafood in the past. It is very fascinating as parasitic infections can have long incubation periods despite acute presentation with atypical clinical syndrome and that central nervous system parasite infection (such as cerebral paragonimiasis) may not have eosinophilia in the cerebrospinal fluid despite having peripheral serum eosinophilia.

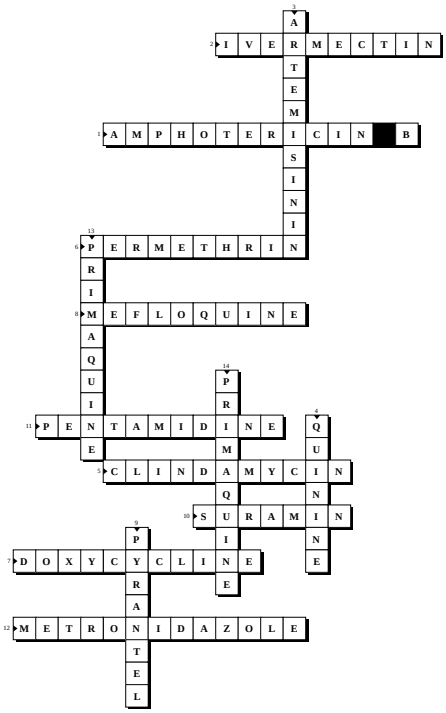
You will hear more from them at the Annual Meeting. Catch them at Meet the Professors: Trainee Case Presentations session, that will be held in Convention Center Room 388/389 (3rd Floor), from 12:15 pm to 1:30 pm on Thurs, Nov 14 (U.S. Central Time).

Clinical Group Crossword

By Charles Tiu (Clinical Group Intern)
Reviewed by Dr Kyle Petersen, DO, FACP, FIDSA (Clinical Group President)



Solution to last issue's crossword puzzle



Clues

1. Cuban physician that hypothesized that Yellow Fever is transmitted by mosquito.

2. Brazilian physician and microbiologist. Discovered the disease caused by *Trpanosoma cruzi*.

3. Former U.S. Surgeon General; known for successfully implementing mosquito control policies in the Panama Canal.

4. Father of Tropical Medicine.

5. Spanish physician that led a 19th century vaccination campaign against smallpox in the Americas and the Philippines.

6. Developed the first rabies vaccine, together with #14.

7. German physician; associated with tuberculosis.

8. British physician that showed cholera is linked with drinking water from a pump.

9. First woman member of the ASTMH. An entomologist.

10. The "C" in BCG, as in the vaccine.

11. Leprosy is also known as ___'s Disease.

12. American Army physician. Confirmed #1's theory.

13. German physician who first described leptospirosis.

14. Eponymous with a French international research institution.

15. Co-discoverer of HIV (2 words)

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