Tropical Traveller Illness

Important questions for history taking

- Travel departure and return dates
- Countries/locations visited, incl. stop-overs
- Climatic conditions, season
- Exposure to bites/licks: insect, animal
- Exposure to ill people
- Unprotected intercourse and partners
- Type & prep of food and liquids consumed
- Vaccination history
- Type & quality of travel/accommodation
- Medications (specific for trip and routine)
- Injuries or illnesses and how treated
- Timing and sequence of symptoms

Investigations

- FBC, UEC, BSL & LFT
- Thick and thin giemsa-stained blood films.
- Urinalysis, microscopy and culture
- Culture: blood, urine, sputum, stool, CSF, lesions
- Serologies: amoebae, schistosomes, arboviruses, hepatitis
- Sputum microscopy as indicated
- Lumbar puncture as indicated
- Tuberculosis skin testing
- Biopsies of lesions or of bone marrow, especially if typhoid, leishmaniasis, or TB
- X-rays (TB), USS (abscesses), CT, or MRI;

Presentation

Fever

Malaria:

- Usually fever, chills, sweats, headaches, muscle pains, nausea and vomiting.
- Severe malaria (*P.falciparum*) may lead to altered LOC, anaemia, respiratory difficulties.

Hepatitis A:

- ~1mo incubation then generally sudden onset of fever, fatigue, nausea and then jaundice.
- Full recovery takes weeks. Food that is handled by infected workers is a source of transmission.

Typhoid Fever:

- Fever is the hallmark. Also relative bradycardia, dry cough, constipation and ↑spleen.
- Rash (rose spots), headache, and diarrhoea may occur.
- Bacterium may continue to shed into stool even when apparently recovered.

Cholera:

- Quite rare outside disaster regions.

Yellow fever:

- This is found in parts of South America and Africa. Certified vaccination may be reqd by some countries.
- Also consider Lassa fever for travellers from Nigeria, Sierra Leone and Liberia.
- Features include fever, exudative sore throat, facial oedema and prostration.

Dengue fever:

- Most common arborvirus in travellers & is increasing throughout the tropics.
- Fever, rash, severe headaches and with intense joint and muscle pain

Typhus:

- It is found particularly in war-torn countries e.g. South America and Africa.
- It has 100% mortality in epidemic conditions.

Marburg and Ebola viruses:

- They are found in the Sudan, Zaire and Kenya.
- Patients present with fever, myalgia, diarrhoea and vomiting, pleuritic pain, shock and bleeding tendency.

Rabies:

- This presents as a non-specific fever ±pharyngitis following a bite commonly from a bat or dog.

Plague:

- Is carried by rodent fleas and is common worldwide.
- The most common is Bubonic, which features tender swelling of the lymph nodes - buboes.

Brucellosis:

- Is carried in farm animals and their products (beware unpasteurised cheeses in underdeveloped countries)
- Symptoms are like flu.

Histoplasmosis:

- Is transmitted by fungal spore (e.g. in bat cave guano) - pre-existing lung disease increases risk.
- Acute disease is mild, chronic is more serious. The fever is accompanied by chest pain and cough.

Also consider septicaemia and meningitis.

Diarrhoea

- Up to 40% of short-term travellers to developing countries. Up to 70% of long-term travellers.
- The highest risk is found with travel to Asia, Africa and Latin America.
    - Escherichia Coli
    - Giardia spp.
    - Salmonella spp.
    - Shigella spp.
    - Campylobacter spp.
    - Entamoeba histolytica
    - Cholera
    - Worms

Initial investigation should include:

- Stool for microscopy, culture and sensitivity, to look for enteric pathogens.
- Separate sample for occult blood testing.
- Stool serology for giardia antigens as well as C. difficile antigen.

Respiratory disease

Influenza

Tuberculosis

Severe Acute Respiratory Syndrome (SARS):

- The first major outbreak of SARS was in Singapore in March 2003; cases were also reported in Toronto.
- It has very significant morbidity and case fatality.
- Clinical features include persistent fever, rigors/ chills, myalgia, dry cough, headache and dyspnoea.
    - Inv: CXR, sputum sample for microscopy, culture and sensitivities
    - Investigations will also reveal lymphopaenia, (particularly CD4 and CD8) thrombocytopaenia, raised APTT, raised D-dimers, and raised ALT, LDH and CK.

Lymphadenopathy

- Plague, HIV, rickettsia, brucellosis, leishmaniasis, dengue, lymphogranuloma venereum and Lassa fever.

Jaundice

- Consider viral hepatitis, cholangitis, liver abscess, leptospirosis (90% anicteric), typhoid fever, dengue fever, yellow fever and haemoglobinopathies.

Hepatosplenomegaly

- Viral hepatitis, malaria, brucellosis, typhoid, leishmaniasis, schistosomiasis & toxoplasmosis.

Gross splenomegaly

- Malaria, visceral leishmaniasis, trypanosomiasis, typhoid, brucellosis, typhus and dengue fever.

Anaemia

- Exclude hookworm, malaria and visceral leishmaniasis as potential causes.

Skin rashes

- Meningococcal disease, yellow fever, dengue, rickettsial infection and viral haemorrhagic fevers can cause petechiae or ecchymosis.
- Prickly heat is a sun sensitivity which gives an intensely itchy erythematous rash, usually in skin fold.
- Dengue fever presents with generalised rash after travel from tropics and Indonesia.
- Trypanosomiasis presents with rash, fever and tender lymph glands. Follows travel to South and East Africa, Angola, Sudan, Congo, and Uganda. There is a variable incubation period.
- Cutaneous larva migrans (Africa, Thailand and SE Asia). Red, serpiginous, itchy, mobile lesions on limbs.
- Leprosy or Hansen's Disease is characterised by multiple symmetrical lesions. Respiratory droplet spread.
- Leishmaniasis results from the bite of an infected sandfly. The bite becomes pruritic and painful. May present with nasal obstruction and bleeding.

Sexually transmitted diseases

- The big 4 to remember are gonorrhoea, syphilis, chlamydia and HIV.
- If the sexual partner was of developing world origin also consider chancroid, lymphogranuloma venereum and granuloma inguinale.