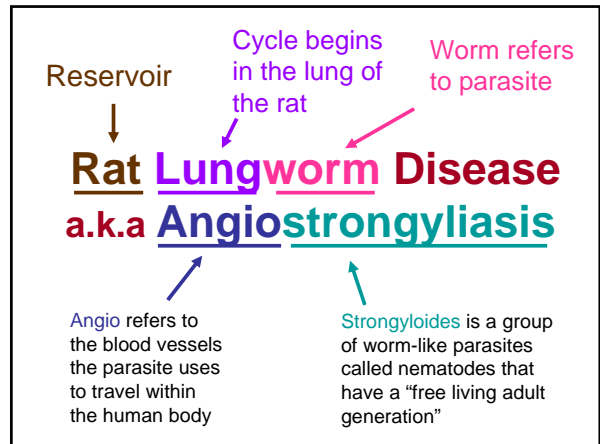


Rat Lungworm Disease a.k.a Angiostrongyliasis

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Rat Lungworm Disease

- Affects brain & spinal cord in humans
- Caused by a parasitic worm
- Found throughout Asia, Pacific, Americas

How do humans get it?

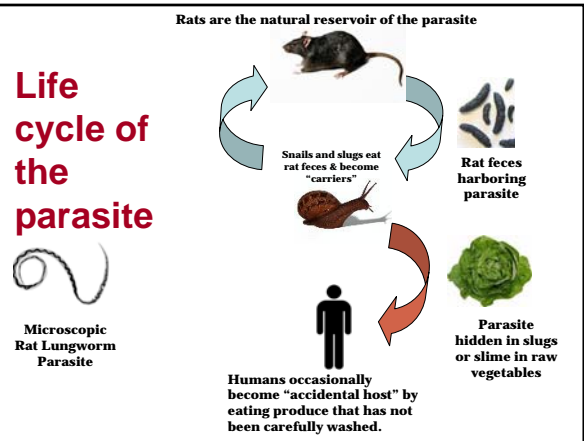
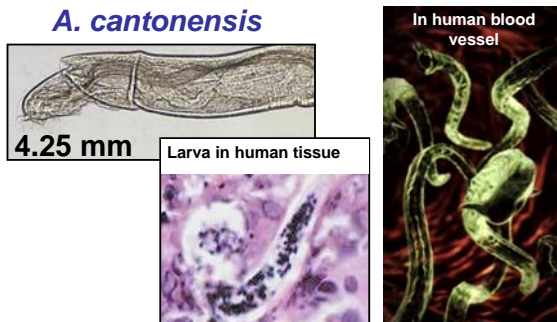
By swallowing the parasite.

- Raw produce containing infected snail or slug (whole or partial)
- Secretions (slime) of infected snail or slug
- Larvae in raw or undercooked snails, slugs, prawns, land crabs

Parasite can survive in catchment water.

(Cannot be transferred from human to human.)

The parasite (rat lungworm) *Angiostrongyloides cantonensis* *A. cantonensis*



Symptoms of infection



- Some people have no symptoms
- If symptoms occur, start 1-3 weeks after exposure
- Usually are mild and brief but can last several months
- Can include: severe headache, neck stiffness, tingling or painful skin, nausea and vomiting, low grade fever, face paralysis, light sensitivity
- Rare: serious form of meningitis (eosinophilic meningitis), paralysis, or coma

Treatment

- Symptom relief only (sometimes steroids are used)
- Killing parasite can worsen illness

Difficult to diagnose

- Clinical test is not readily available (neither antibody nor PCR, which detects DNA)
- There are many other causes of eosinophilia (other parasites, allergies, some cancers, some skin diseases, etc.)
- CDC will only test if clinical criteria are met, other diagnoses are ruled out, and there is eosinophilia in cerebro-spinal fluid (requires a spinal tap during illness)

Difficult to evaluate exposure

- Possible exposures hard to evaluate.
- In Hawaii, unknown extent of penetration of rat lungworm in rats, slugs, snails, other animals
- A test to detect the parasite in the environment is not readily available.
- Survival of infectious larvae in different environmental circumstances has not been fully established

Prevention

- Do not eat raw produce unless carefully washed and inspected for slugs
- Or cook produce for at least 5 minutes
- Boil snails, crabs, prawns at least 5 minutes, or freeze at 5 degrees F for 24 hrs
- Wash hands after handling raw produce
- Gardening: wear gloves; wash hands after
- Tell children not to play with slugs, snails
- Never eat a slug on a “dare”
- Control rats and slugs around house

If you think you are infected

- Discuss symptoms and exposures with your doctor
- Call Department of Health Epidemiologist on Maui:
Takako Nakaaki, MPH (808) 984-8213

DOH educational materials available

- Color poster (legal size paper)
- Tri-fold Brochure (legal size or letter size)
- Display Board
- DOH Fact Sheet “Angiostrongyliasis”
- Translations: Marshallese, Spanish, Ilocano, Tagalog (currently being formatted)