



Sparganosis in Narok, 2016

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Zoonotic Disease Unit

Case Record

- 19th May 2016
- 20year old male
- Siana village
- Swelling in his palm x 1year
 - Mostly painless
 - Increasing in size
 - Nonresponsive to antibiotics
 - Creeping sensation at night

Past History

- PMHx
 - Non-remarkable
 - Had treated the swelling at private clinics
- FSHx
 - Married
 - No formal education
 - One child
 - Pastoralist

Risk factor profile

- Drinks untreated water from water pans
- Keeps dogs and cats, never dewormed
- Grazes in the Maasai Mara
- No travel out of Narok
- Hyenas and foxes spotted within settlements
- Doesn't eat fish/other sea food

Risk factor profile



Clinical findings

- Healthy young man
- Swollen right palm
 - Tender
 - Warm
 - Reddening
 - Pus oozing
- No other significant physical findings

Differential Diagnosis

- Cutaneous anthrax
- Abscess
- Foreign body
- Cellulitis
- Myiasis

Incision and drainage



Investigative team



Investigative team

- Medical parasitologist
- Medical doctors
- Surveillance officers
- Veterinary officers

Objectives

- Associated factors, extend and logistics required for a full survey
 - Epidemiological mapping of area at risk
 - To trace any undisclosed human/animal cases
 - KAP on sparganosis
 - Water samples for preliminary assessment

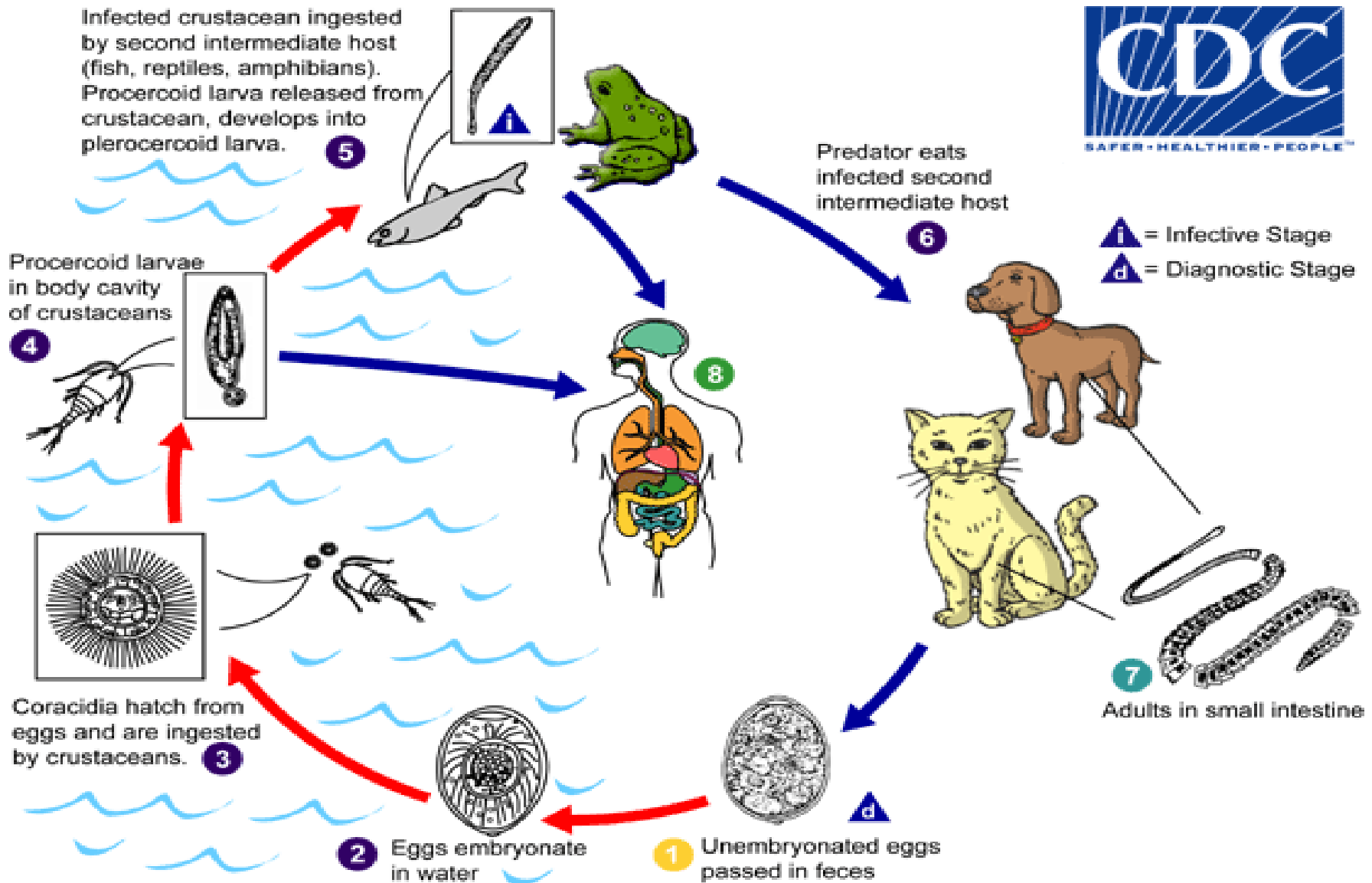
Sparganosis

- A parasitic zoonotic disease
- Caused by larvae of genus *Spirometra*
- Definitive hosts-dogs, cats, other mammals
- Humans are accidental hosts
- Once infected, the larvae can migrate anywhere including the brain, testes
- Diagnosis made after worm extraction
- Treatment-praziquantel, excision

Disease burden

- Highest prevalence in S.E Asia
 - Raw sea food
 - Wound treatment practices
- Parasitic infections common in Africa
 - Poor sanitation
 - Cases dating to 1907
- Incidence thought to be high in Africa
- Cases historically reported in Maasai land

Lifecycle



Findings

- FGDs and home visits
 - Predominantly meat eating
 - All homes kept cats and dogs
 - Only livestock is dewormed
 - Boreholes, water pans, rivers main sources of water
 - Myiasis a major problem
 - 2 other cases fit our case definition

Findings

- Health facility record reviews
 - Index case reported at Enkitoria dispensary
 - Main health facilities had not seen similar cases
 - 2nd confirmed case initially treated for arthritis, reported pain for 6 months
 - Most health care workers not familiar with the disease
 - CHVs reported Myiasis as the major problem

Other cases



Post-treatment



Conclusion

- Sparganosis reported along the Maasai Mara belt
- 2 other undisclosed cases
- Community at high risk of the disease
 - Dogs not dewormed
 - Water not treated
 - Border crossing over to Tanzania
 - Sharing water sources with animals

Recommendations

- Continued surveillance for parasitic infections
- Regular dog deworming
- Water treatment/filtration before drinking
- Proper preparation of fish before consumption
- Further studies

