



Clinical Case



- A 31-year old Kuwaiti male, otherwise healthy, presented at Amiri Hospital with sudden onset of fits, convulsions in the last 10 days.
- He gave no H/O of head injury or drug intake.
- He travels abroad frequently to different countries on business tours

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Diagnostic queries:

What additional information you may need in the history?

What would be your diagnostic workup & why?

What are 3 major differential diagnosis

How would you confirm your diagnosis?

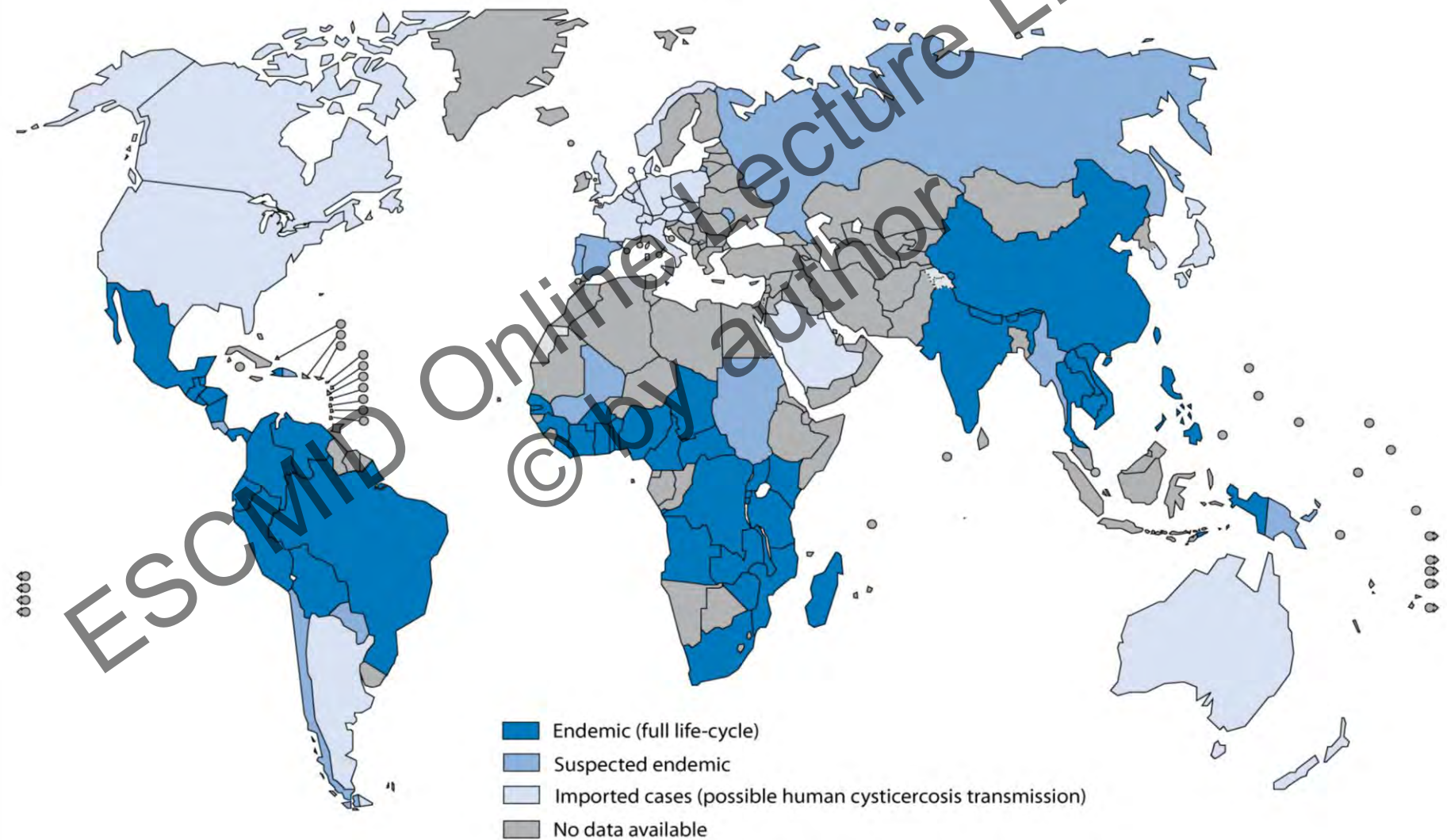
How would you manage this patient?

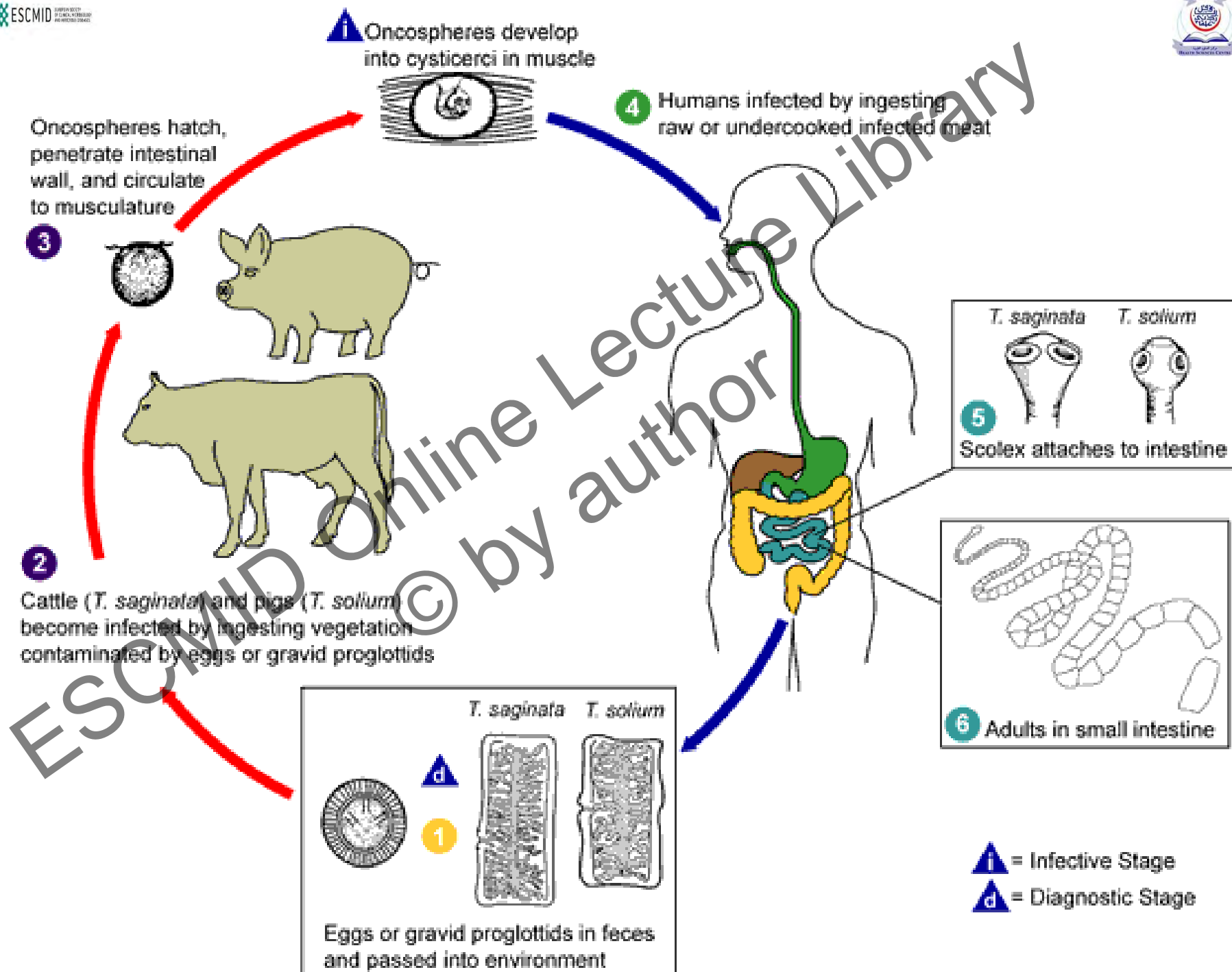


Cysticercosis Epidemiology

- Worldwide: ~50 million have cysticercosis infection.
- Endemic Regions: Central & South America, Sub-Saharan Africa, India, Nepal, China, Thailand.²
- India (Bihar, UP): ~19% of the population; NCC: 3%
- Europe: 17 countries; 53% imported; 11% autochthonous.
- USA: 85% cases in migrants (60% Mexican); 15% US-born persons.

Countries and areas at risk of cysticercosis, 2009





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Mode of Transmission:

I, Fecal-oral route contaminated with *T. solium* ova

II, Autoinfection

Sites:

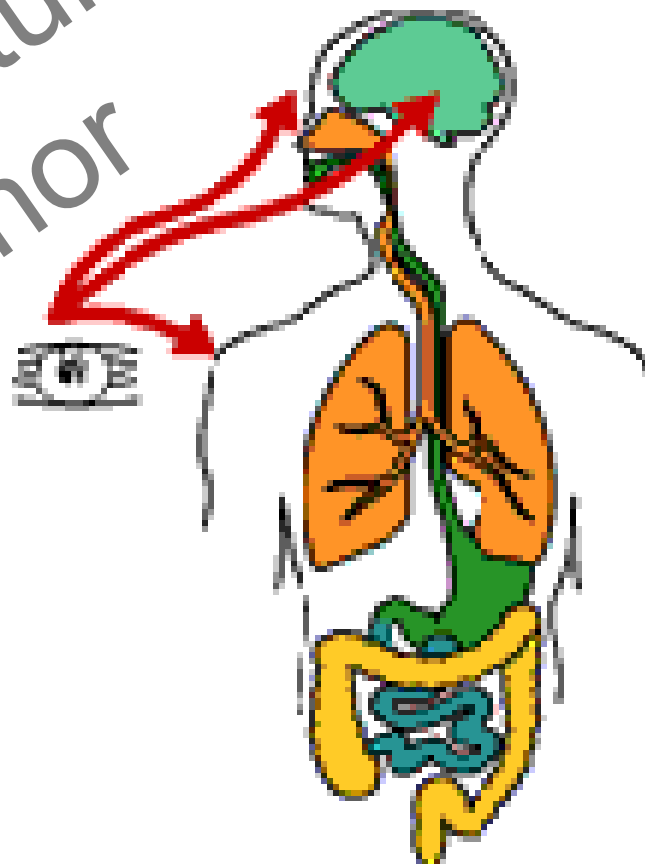
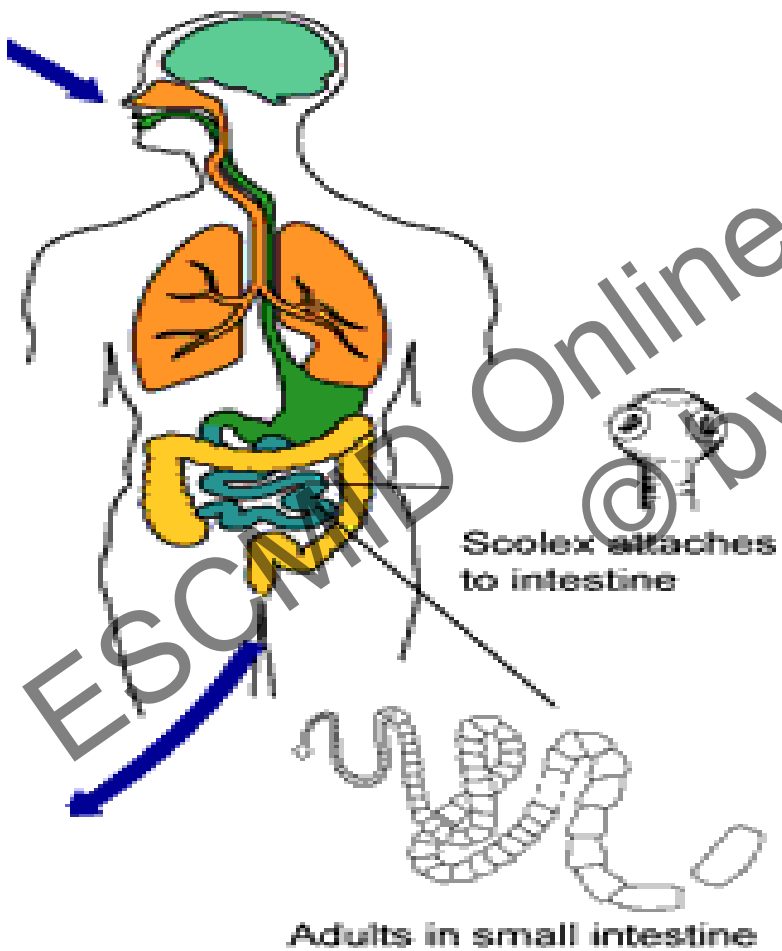
Brain, subcutaneous tissues, eye and striated muscle

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Taeniasis

Cysticercosis

Mode of Transmission



Cysticercosis

Pathogenesis

1. Initially, the live larva is within a thin-walled cyst and is minimally antigenic
2. Drug therapy/host immune response: Gradual death of the cyst inflammation and edema increased intracranial pressure symptoms!!
3. Cyst may degenerate to disappear or be calcified in 5-7 years.
4. Protoscolices seen attached to inner cyst wall



Situation in Kuwait

Taeniasis:

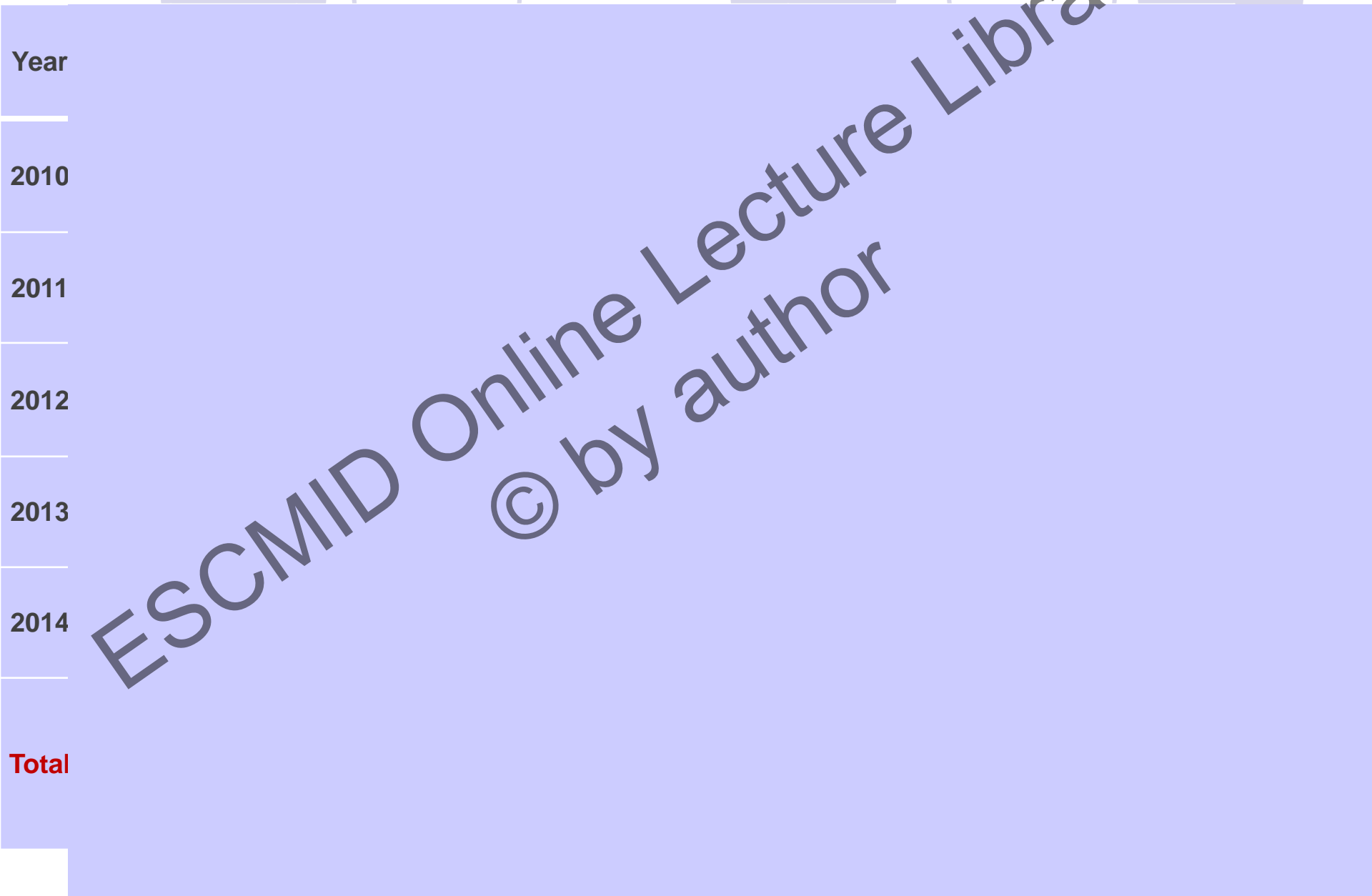
No Local transmission: No pork eating

Cysticercosis:

Clusters of cases: Imported cases

Locally infected: House maids with taeniasis

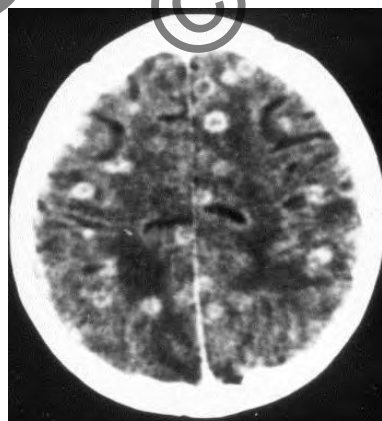
Cysticercosis in Kuwait



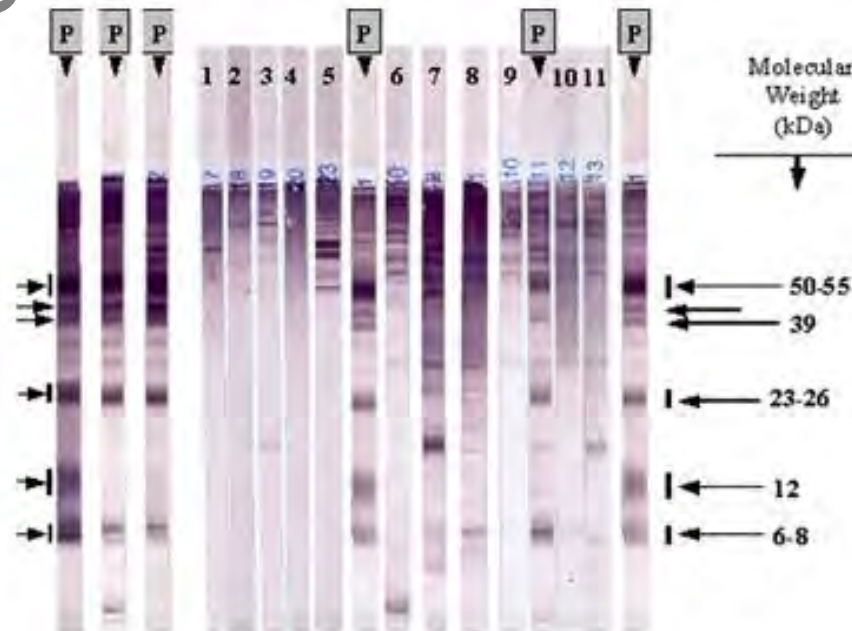
Cysticercosis

Diagnostic Protocol

1. Residence/Travel to endemic area
2. History of epileptic seizures
3. CT, MRI
4. Serology: **Immunoblotting**
5. Biopsy



CYSTICERCOSIS WB IgG
Reference Sheet
(example of negative and positive results)





Diagnosis

Serology:

- *T. solium* recombinant antigen (rES33);

97% sensitivity & 100% specificity [Peru, 2007]

- Copro PCR:

mtDNA encoding Cytochrome 'C' oxidase subunit 1
chromosomal DNA encoding oncosphere protein Tso31.

Treatment: Praziquantel



*Thank
You!*

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