



Cystic Breast Mass

by

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HISTORY

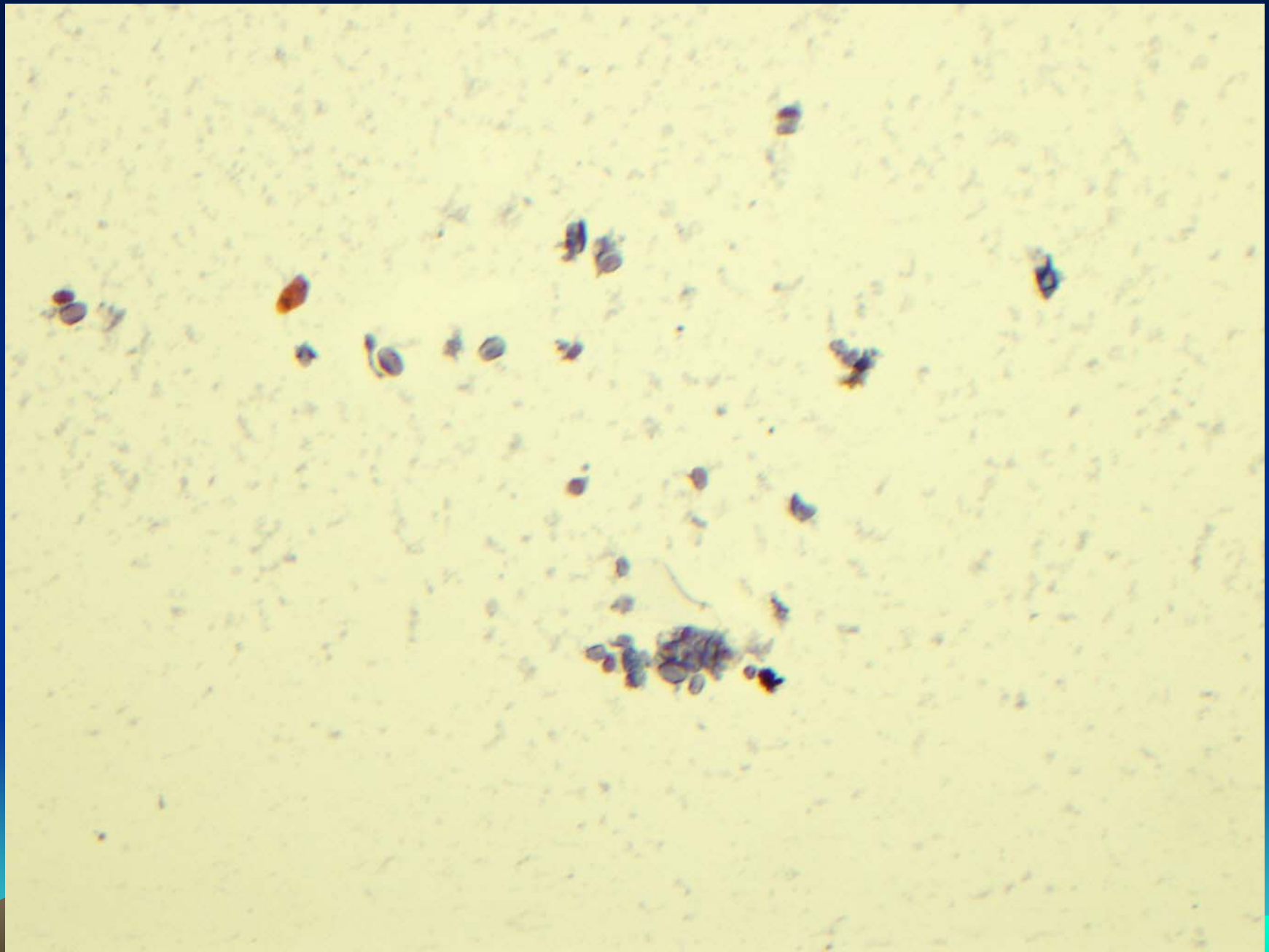
- 44 y/o Hispanic female with a cystic left breast mass.
- 20 cc of clear serous fluid with slight greenish tinge was aspirated.
- No residual mass

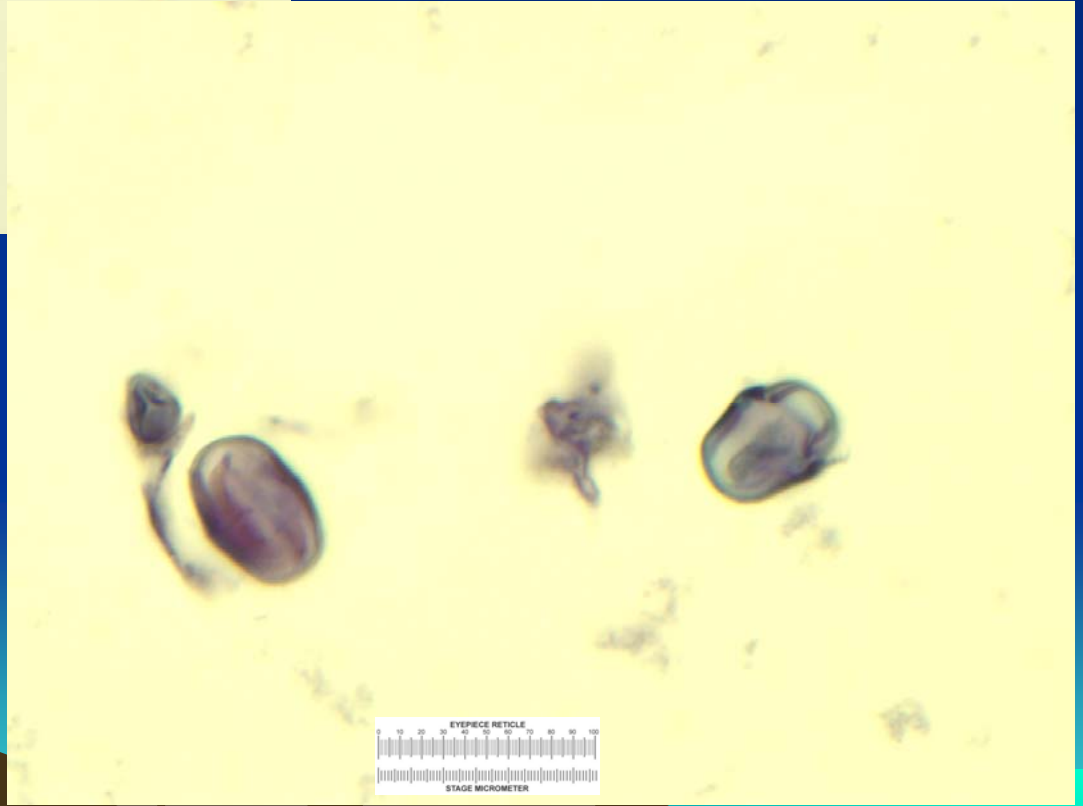


Differential diagnosis of breast cyst

- Clear & yellow - Fibrocystic Change
- Turbid – Cystic papillary lesion
- Brown to bloody – cancer, Intracystic papilloma
- milky or opaque fluid – galactocele
- purulent - inflammation (mastitis or breast abscess),







Paragonimus westermani Ova



- The average egg size is 85 μm by 53 μm (range: 68 to 118 μm by 39 to 67 μm). They are yellow-brown, ovoidal or elongate, with a thick shell, and often asymmetrical with one end slightly flattened. At the large end, the operculum is clearly visible. The opposite (abopercular) end is thickened.

- Adult worms are pinkish-brown in color and bean-shaped (7 to 15 mm in length, 3 to 8 mm in width, and 3 to 5 mm in thickness).



Other parasite in breast



S Hematobium

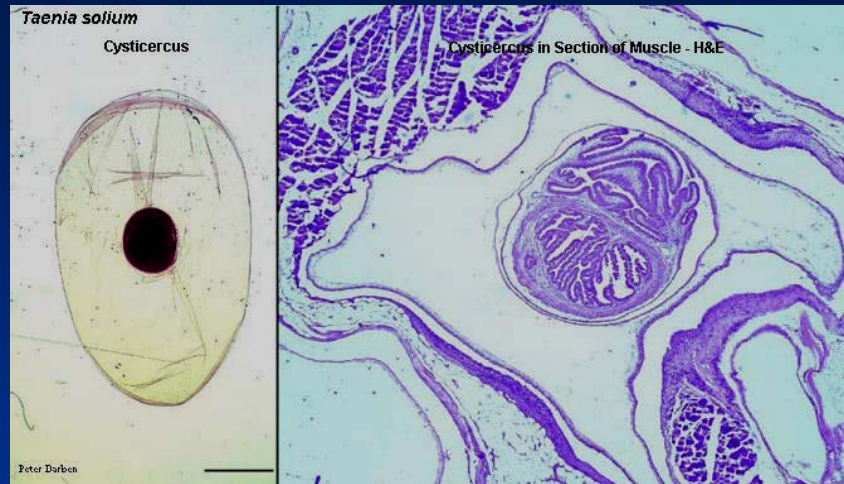


S Mansoni



S Japonicum

Cysticercosis



Microfilaria



Diagnosis

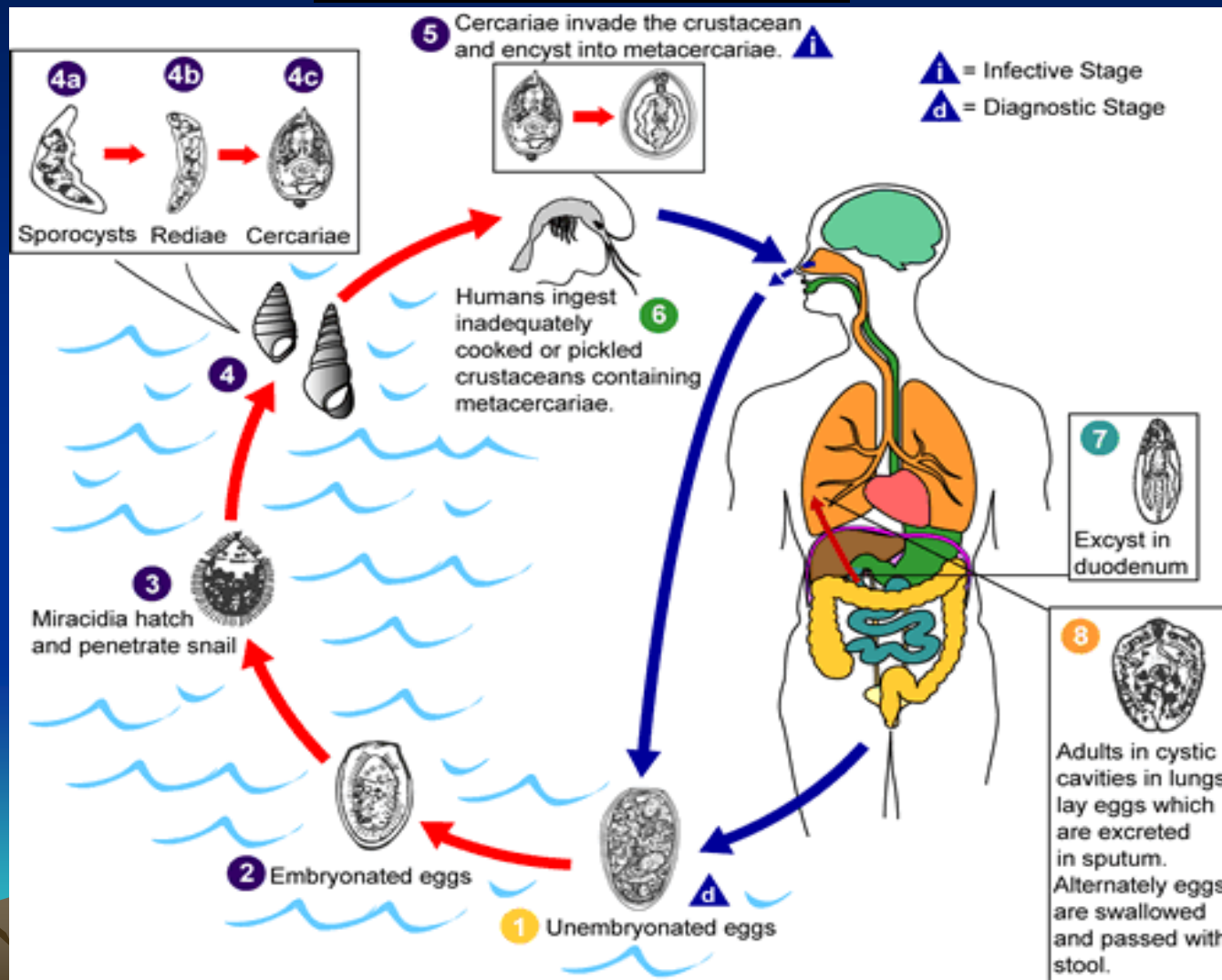
- Ova of the genus Paragonimus (the oriental lung fluke).

Geographic distribution and mode of infection


- *Paragonimus westermani* is endemic in several Asian countries, East of Russia, West Africa, Central & South America.
- Human infections occur in areas where people consume improperly cooked freshwater crustaceans (crabs and crayfish) which contain the larvae (metacercaria) of *Paragonimus*



Life cycle of *Paragonimus westermani*



• Ectopic Paragonimiasis

- Brain
 - Subcutaneous tissue
 - Breast
 - Liver
 - Spleen
 - Omentum
 - Ovary
- 

Signs & Symptoms

- Nonspecific symptoms.
- Dry cough, Hemoptysis.
- Chest pain, Hydropneumothorax & pleural effusion.



Pathologic findings

- peripheral eosinophilia, leukocytosis, and elevated serum levels of total IgE.
- Eggs, Adult worms, As time passes, worms are surrounded by thick fibrous granuloma, necrotic, calcification.



Diagnosis

- Detection of eggs in feces is the diagnostic choice.
- Intradermal test - low specificity.
- Enzyme-linked immunosorbent assay (ELISA) and immunoblot are reliable in detecting specific IgG antibodies.
- Bx.



Treatment

- Praziquantel is a drug of choice with more than 95% efficiency.



Summary

- FNA - clear fluids - cytology
- Triple test
- Examine for residual mass
- Biopsy



References

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- *Lee YS, Ha SY, Cho HI, Kim IS. Case report: Breast mass as a manifestation of ectopic Paragonimiasis. Korean J Pathol. 1993 Dec;27(6):656-658.*
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