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Section: Parasitology Manual	Subject Title: Collection and Laboratory Procedures for Specimens Other Than Stool or Blood	
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Hydatid Cysts

PRINCIPLE

When the dog tape worm infects humans it creates a hydatid cyst in its host. The cyst can be removed surgically, however great care must be taken to avoid releasing viable daughter cysts. When hydatid cysts are removed a sample is sent for confirmation and a determination of viability.

SPECIMEN

Hydatid cyst, scraping or aspirate from surgery (i.e. liver abscess) in a bottle or bucket.

REAGENTS

0.1% eosin
10% KOH

PROCEDURE

- 1) If the cyst material is fluid centrifuge at 500g for 3 minutes
- 2) Remove some of the sediment and make a wet mount.
- 3) Examine the material with low power and low light levels looking for scolices, hooklets, and calcareous corpuscles. 0.1% eosin can be added to determine viability (living organisms exclude eosin).
- 4) If the cyst material is viscous or solid add 10% KOH and centrifuge at 500g for 3 minutes.

QUALITY CONTROL

- The absence of scolices or hooklets does not rule out hydatid disease.
- Very viscous material can be sandwiched between two glass slides.

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- Ensure that the microscope has been calibrated in the last year or the last time the optics were changed and that the results of the calibration are displayed on the microscope base.
- As it is not possible to have a positive control specimen to use with this procedure, the technologist should review the appearance and size of the material observed to ensure that they match reference material.
- Request that warning be given prior to the arrival of the sample so that it can be processed quickly.

REPORT

The presence of scolices, hooklets, and calcareous corpuscles and viability of cyst.

LIMITATIONS OF PROCEDURE

Only a portion of the sample is routinely examined. Contents of the cyst that “spill” into the body cavities during the procedure can not be examined.

- The sample may be mushed by the time it arrives for evaluation making identification more difficult.

AUTHOR

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REFERENCES

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Gillespie, S.H. and Hawkey, P.M. Medical Parasitology: A Practical Approach. IRL Press New York 1994 pp209-237