Sigmoidoscopy

PRINCIPLE

Material obtained from sigmoidoscopy can be helpful in the diagnosis of amebiasis that has eluded routine stool examinations. Material from the mucosal surface should be aspirated or scraped and six slides from six different areas should be prepared. Two methods of examination are available; direct mount, and SAF fixative. Samples should be examined for *E. histolytica* and if fresh material is examined live trophozoite forms may be seen.

1) Direct Mount:

SPECIMENS

Samples are obtained from the sigmoidoscope and should be carried immediately to the Parasitology laboratory for examination. See stool sample rejection criteria.

REAGENTS

0.85% NaCl saline

PROCEDURE

1) A drop of material is mixed with a drop of saline

2) A coverslip is added and the preparation is examined under low power.

QUALITY CONTROL

- It may take organisms several minutes to acclimate to this treatment and to start moving again.
- There will be epithelial cells, macrophages, and possibly PMNs and red cells present.
- If limited sample is available do the permanent stained smears first.
- if sufficient material is available some of it can be cultured.
- Ensure that the microscope has been calibrated in the last year and that the results of the calibration are displayed on the microscope base.

REPORT

Any parasites observed.

2) Samples submitted in SAF

SPECIMEN

Specimen should be submitted in a small amount of SAF.

PROCEDURE

1) After spending 30 minutes in the SAF solution the specimen should be centrifuged at 500g for 10 minutes.

2) Smears from a small amount of sediment (<0.1ml) are made.

3) Smears are stained with Hematoxylin Stain (see section on Hematoxylin staining).

QUALITY CONTROL

- Ensure that the microscope has been calibrated in the last year and that the results of the calibration are displayed on the microscope base.
- See QC comments associated with haematoxylin staining.

REPORT

Any parasites present

LIMITATIONS OF PROCEDURE

- Any delay between sampling and diagnosis should be avoided. If samples are being submitted consult with the Parasitology lab to ensure that the sample can be processed immediately.
- This is an invasive procedure and while it produces a superior sample it is used less frequently than a standard stool sample.

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REFERENCES

Garcia LS, Bruckner DA. Diagnostic Medical Parasitology. 3rd Edition.ASM Press, Washington DC. Pp670-675 1997.