LABORATORY TECHNIQUES FOR EXAMINATION OF INTESTINAL PARASITES

Pages with reference to book, From 204 To 205

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A. small amount of faeces, collected within one hour of examination is emulsified in a drop of saline on a slide. Trophozoites of amoeba and flagellates may be identified by using a 10x40 lens. Lugols iodine may be used as emulsifying agent that will stain nuclei and other structures so as to make them easily visible. A heavy infestation with intestinal parasites can easily be detected by this simple method.

B. This method especially concentrates the trophozoites. The procedure is:

i) Mix 1 gram of fresh faeces with 15m1 saline and

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The usual specimen required for the investigation (ii). With preservative.of intestinal parasites is faeces, which should be collected 1 in containers that will prevent contamination with urine or water. The stool specimen should be brought to the A laboratory within one hour of defecation. As there is considerable daily variations in the numbers of ovas and cysts excreted, it is better to submit samples for three consecutive days. The following precautionary measures if taken give good results and better diagnosis.

a. Antimicrobials and anti-helmanthins should not be given before stool examination.

h. The presence of barium, laxatine minerals oil and so forth makes the recognition of ovas and cysts difficult.

The stool examination can be done:

(i). Without any preservative.

(1) Method for examination of stool without preservative or fixative.

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B. This method especially concentrates the trophozoites. The procedure is:

i) Mix 1 gram of fresh faeces with 15m1 saline and filter the suspension through a wet doubled layer gauze piece into a centrifuge tube. This removes gross faccal material.

ii) Centrifuge one minute at 2000 rpm.

iii) Decant the supernatent, and wash the sediment in saline, repeating the centrifugation until the supernatent is reasonably clear.

iv) Make slide of the sediment and observe under 10x40 lens for trophozottes.

2. Methods for examination of stool with preservatives.

A number of preservatives or fIxatives are available. The one described here gives the best preservation of ovas and cysts.

Formal Saline Method

This procedure is also known as the concentration procedure and used to elucidate lesser degrees of infestations. It produces little morphological distortion of ova and cysts.

STEPS

(a) As discussed in the procedure for concentrating trophozoites, we proceed to method B. step iv.

(b) Add to sediment lOmi of 10% formal saline and allow to stand for 10 minutes.

(c) Add 2m1 of ether, stopper the tube, and shake energetically for 30 sec.

(d) Remove the stopper with care and centrifuge at 2000 rpm for 1 minute.

(e) Loosen the plug or ring of depris (above ether layer) with a stick, and decant everything except the sediment.
(f) Observe the sediment for ovas and cysts after pouring one drop on the slide with one drop iodine in 10x40 lens.