

Stage 4/ Lab Three
By Hanan Faisal

Preparation of solution for wet mount

- **Advantage of direct wet mount**

1- It is fast, simple procedure and provides a quick answer when positive.

2- It provides an approximation of the parasitic burden.

3- It can be used with unpreserved specimens to detect the characteristic motility

of trophozoites .

4- It can be used as a safeguard, as some protozoa may at times not concentrate

properly because of unknown factors.

5- It can be detected the motile trophozoites stage of the protozoan species.

- **The disadvantage of this technique**

1-preparation dries within a few minutes rendering it unreadable and unreliable to visualize live nematodal larvae.

2-each time a fresh preparation is required to view slides for later consultation.

- **Preparation of solution for wet mount**

1- Normal Saline solution

NaCl 0.85 gm

D.W 100 ml

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Dissolve NaCl in D.W put in bottle with stopper. Solution can be used in for long period

2- Formal saline solution

Normal saline solution 90 ml

Formaldehyde solution (3.7%) 100 ml

Sodium carbonate few drops

Measure normal saline solution gradual cylinder then put in flask ,add formaldehyde solution

- **Procedure**

measure normal saline solution gradual cylinder then put in flask, add formaldehyde solution cover the flask, then mix the solution well ,add few drops of sodium carbonate to obtain ph equal to 7.0 keep in room temp. for un limited time

- **Advantages and disadvantages of saline solution**

Helps to demonstrate the motility of trophozoites . but it doesn't contribute much to the definitive diagnosis of cysts or trophozoites ,because internal structure are often poorly visible

- **Iodine stock solution**

To prepare 125 ml of iodine stock solution:

Potassium iodate 0.44 gm

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Potassium iodide 5.62 gm

Concentrated HCl 1.12 ml

D.W 125 ml

- **Procedure**

1-Weight each of pot. Iodate and Iodide, put in flask with 125 ml capacity . add half of amount of d.w , keep stirring to dissolve all the chemical materials, add the HCl

2-carefully with stirring, add the half of D.w. , keep the solution in dark bottle in refrigerator , can be use within one month.

- **Advantage of Iodine solution for wet mount**

1-Iodine mount are examined for amoebic and flagellate cysts.

2-the method is simple to perform, quick and inexpensive.

3-facilitating direct visualization of parasitic ova and cyst morphology

- **Preparation of eosin solution for wet mount**

Prepare eosin Y stock solution:

1-Add 2.0 g of water-soluble eosin Y to 40 mL of double-distilled H₂O, and mix until dissolved.

2-Then add 160 mL of 95% ethanol, and mix. Store at room temperature.

What is the eosin solution?

Eosin Y Solution (Aqueous) is intended for use in the histological demonstration of cytoplasm and is commonly used as a counterstain for Hematoxylin. ... Erythrocytes, collagen,

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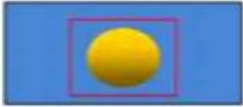
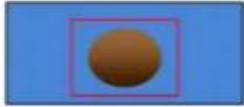
and the cytoplasm of muscle or epithelial cells will stain with different shades of pink. Cytoplasm: Pink to Red.

- **Advantage of eosin solution for wet mount**

1- detection of cysts or trophozoites

2- they can be much more easily detected against the pink- red background of eosin preparation.

STOOL EXAMINATION A Rapid Methods

Saline smear	Iodine smear
 saline	 Iodine 1%
 Huge number of: <ul style="list-style-type: none">•Eggs• Protozoal troph. Motility (Amoeb, flagellates)	 Huge number of: <ul style="list-style-type: none">•Cyst morphological details

Dr. T. R. Ali MD 23