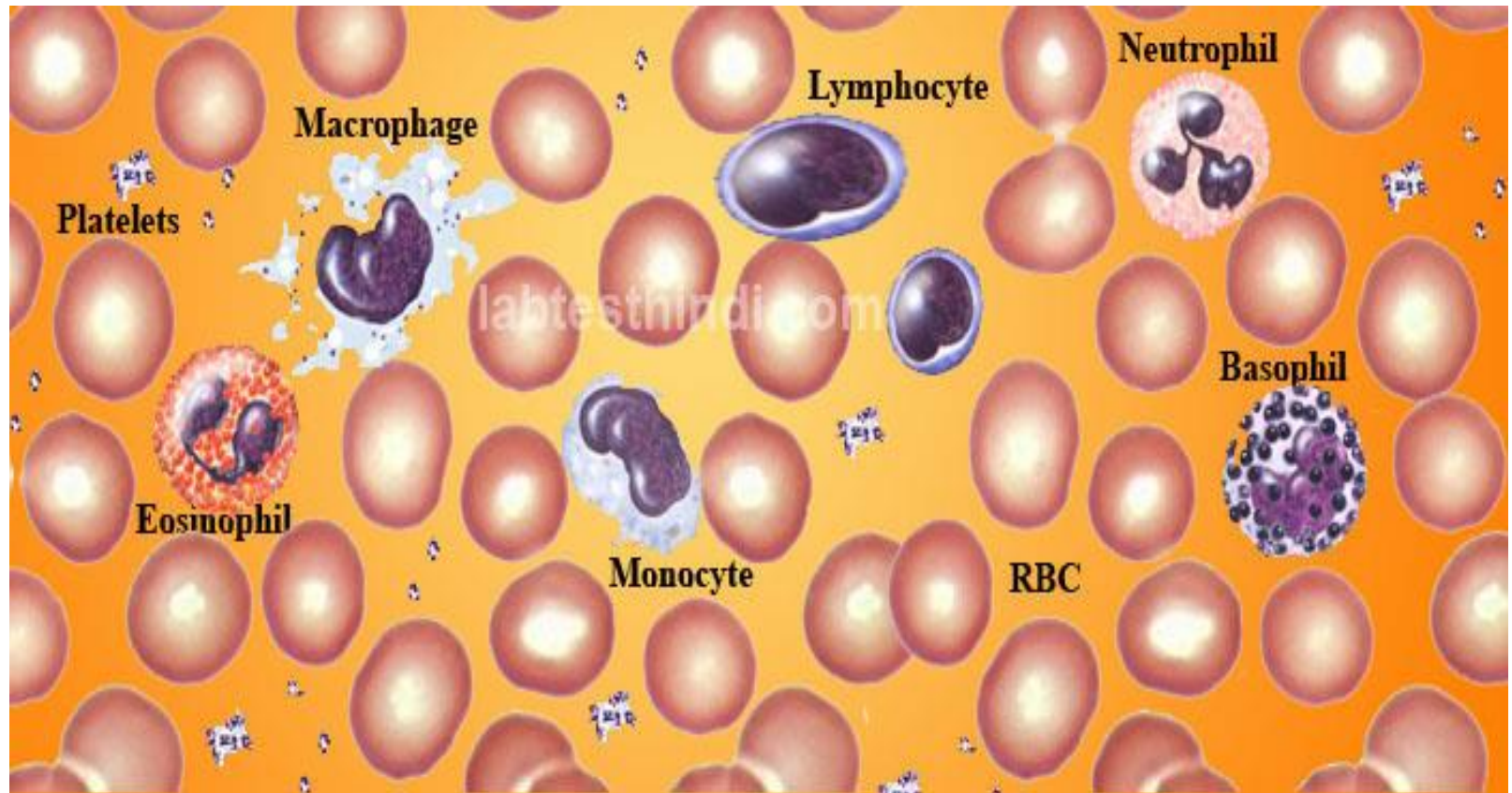


PERIPHERAL SMEAR EXAMINATION



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PERIPHERAL SMEAR EXAMINATION

1 . Name the stains in romanowsky's group of stain

▶ **Ans Leishman's stain**

Giemsa stain

Jenner's stain

Wright stain

Field's stain

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**2 . which romanowsky stain is commonly used
for routine staining**

Ans : Leishman's stain

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3. Name the types of peripheral blood films

Ans : Thin film

Thick film

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- ▶ **4 . Which parasites can be seen in PBF**
- ▶ **Ans :** Malarial parasite
Microfilaria
leishmania
Babesia
Trypanosoma cruzi

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5 . In what conditions is the examination of the thick blood films useful

Ans :

For the demonstration of Malaria parasite and Microfilaria

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6 . why thick blood smear used for parasites detection

Ans :

A thick peripheral blood smear provides large volume of blood , that leads to parasites can be scanned in shorter time

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7 . What is the composition of Leishman 's stain

Ans:

Methylene blue

Eosin or Azure

Acetone free methyl alcohol

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8. How will you prepare Leishmann's stain

Ans :

**Dissolve 0.2 gm of powdered Leishman's dye
in 100 ml of (acetone free) Methyl alcohol**



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9. What are techniques for peripheral smear preparation

- ▶ Ans: slide technique
Cover slip technique
Automated slide making and staining

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10. What are characteristics of a good smear

Ans:

Good smear is tongue shaped with smooth tail

Has both thin and thick areas

No lines or holes

Should occupy 2/3 of the total slide

Not touch any edge of slide

Should be Margin free except point of application

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11. Name the parts of a thin peripheral blood film

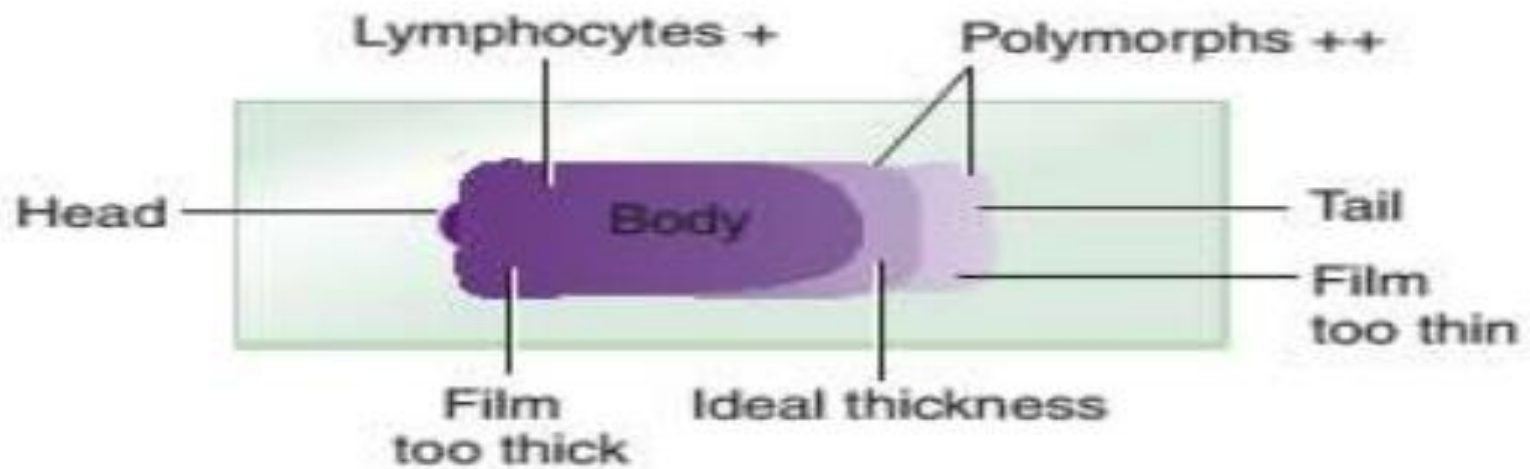
Ans:

Head

Body

Tail

The shape of blood film



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12. Which part of the PBF is examined for WBC counting

Ans :

At the junction of the body and the tail where there is slight overlapping of the RBCs

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**13 . Which buffer is used in the staining of PBF
by leishman stain**

Ans :

**Sorenson ' phosphate buffer (potassium
dihydrogen phosphate + Dibasic sodium
phosphate**



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14. What is the use of buffer for diluting the stain

Ans :

Roamnowsky stain diluted with phosphate buffer PH 6.8 imparts a reddish hue to red cells and differential staining of granules of granulocytes.

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15. What is the effect of PH on staining with Romanowsky stain

Ans:

A PH of 6.8 is recommended for staining of the granules of leucocytes

A PH of 7.2 is best for staining the schuffners dots

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16. Which stain is commonly used for staining the blood film in malaria survey

Ans: Field stain is a rapid stain

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17. Why stained blood film show indistinct nucleus with scattered granules

Ans:

Due to Use of chlorinated tap water instead of buffer or fresh distilled water in staining procedure



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18. What should be the essential feature in a spreader for making a good blood smear

Ans :

The spreader slide should always have a smooth edge that results in a smooth smear is formed without irregularity on tail

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19. What is the tailing of the smear

Ans : If the edge of the spreader is not smooth , the smear shows streaks which contain large number of neutrophils and platelets .

In rest of the smear neutrophils are diminished

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20. In leishman's stain why do we wait for 10 minutes after pouring stain over the peripheral blood film

Ans:

Peripheral blood film gets fixed with methyl alcohol which is the component of leishman stain

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- ▶ **21. What is the action of eosin in smear interpretation**

Ans:

It is an acidic dye(negatively charged) and stains basic components of(positive charged) cytoplasmic granules and RBCs in a pink colour

PERIPHERAL SMEAR EXAMINATION

- ▶ **22. What is the action of methylene blue in smear interpretation**

Ans:

It is a basic dye(positively charged) and stains acidic components of(negatively charged) basophilic granules in the cytoplasm, nuclei of all leukocytes in a blue violet color

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23. What is the action of Acetone free methyl alcohol in smear interpretation

Ans:

**It fixes the peripheral smear to glass slide
It preserves the morphology and chemical
status of the cells**

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24. Common causes of poor blood smear while making smear

Ans:

Drop of blood too large or too small

Failure to keep the entire edge of the spreader against slide on making smear

Failure to keep the spreader slide at a 45° angle with slide

PERIPHERAL SMEAR EXAMINATION

24. Common causes of poor blood smear while making smear

Ans:

Slide contaminated with fat grease or air bubbles

Edge of spreader dirty ,or chipped

Failure to push the spreader slide completely across the slide