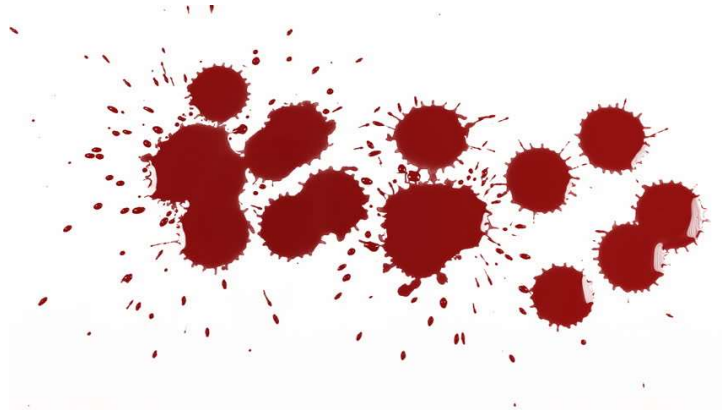


Blood film review steps

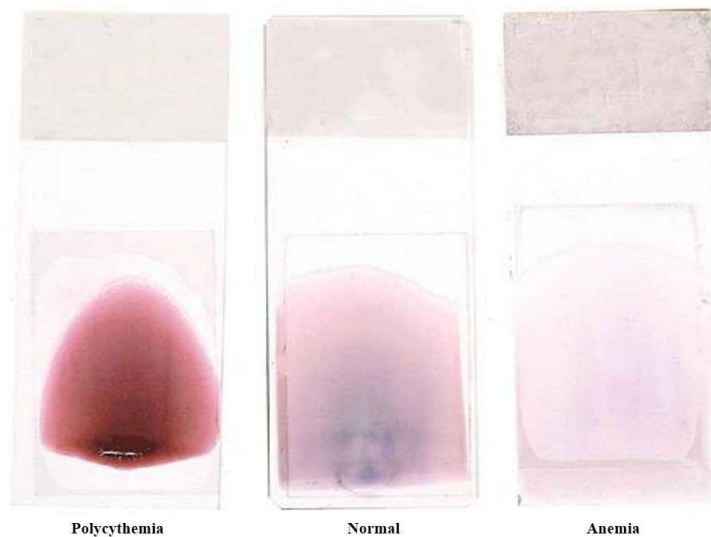
Laura Waller RVT
January 2022



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Step 1

- Look at slide grossly – try to guess the hemoconcentration!
- Apply oil, then coverslip (optional) – helps w/ clarity



2

Step 2 - Start on 10x

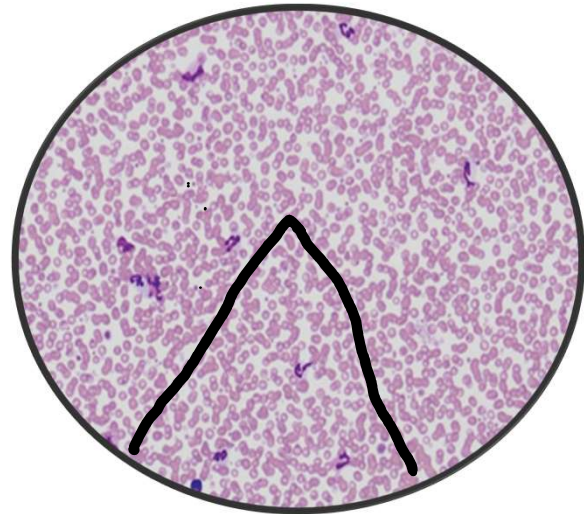
SHORTCUT

Step 2
WBC estimate

$1/5$ of the "pie" x 1000

Check for platelet clumping (feathered edge)

Scan entire slide



4,000 wbc in this example

3

Textbook
way:

WBC
estimate
on 40x

Count 10 fields

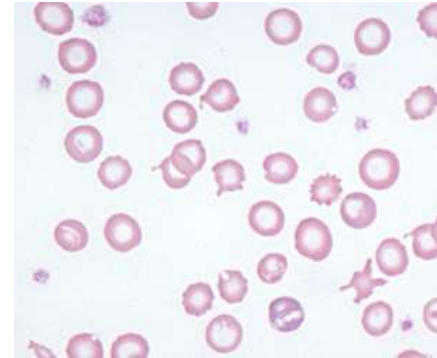
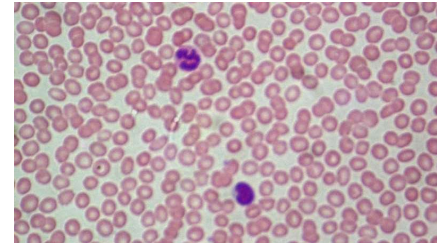
Average

Multiply by 2,000

4

Step 3 – 40x estimate hemoconcentration

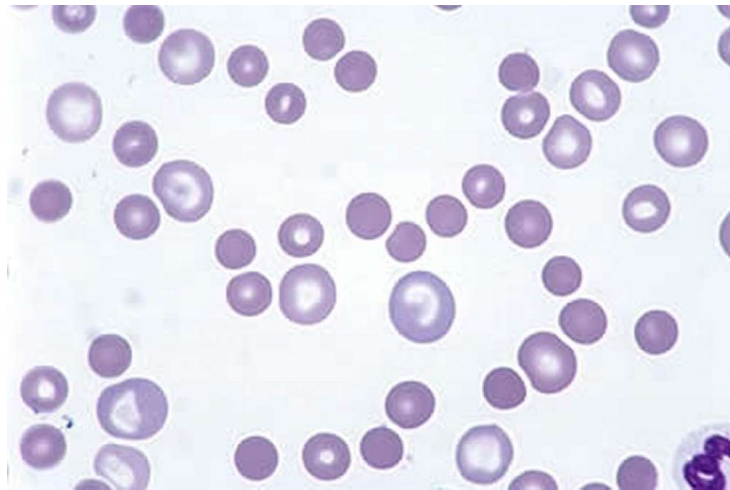
- Focus on feathered edge/monolayer
- Can evaluate an approximate hemoconcentration with practice.
- “40%, 55%, 25%”
- Or at the very least, be able to tell if it’s hemoconcentrated, normal, or anemic!



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Step 4 – 40x

- Look at RBC morphology
- Color variations
- Shape variations
- Size variations
- Other: parasites, agglutination, rouleaux, abnormal cells, inclusions etc



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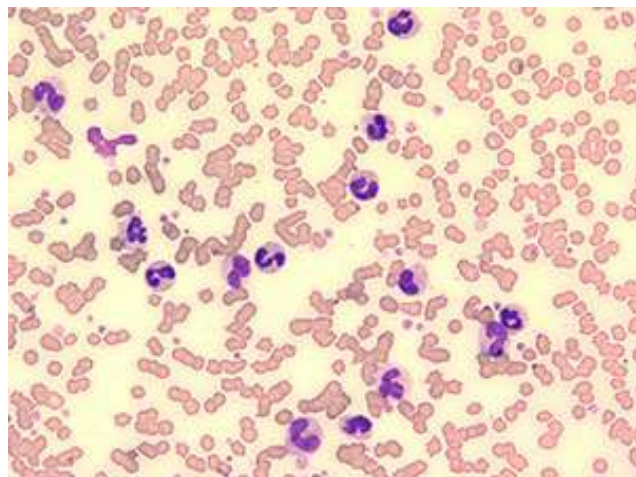
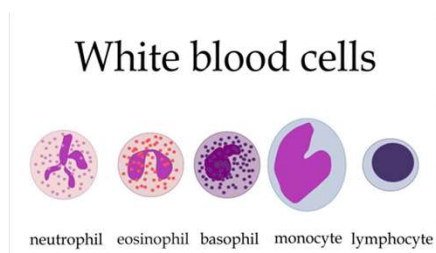
Quantitating morphological changes

- Scale of 1+, 2+, 3+, 4+ = indicates the relative percentage of cells with the morphological change.
 - 1+ = 5-10% of cells affected
 - 2+ = 10-25% of cells affected
 - 3+ = 50% of cells affected
 - 4+ = 75% of cells affected
- “Slight” “Moderate” “Marked”
 - Slight= 10%
 - Moderate = 25%
 - Marked = 50% +

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Step 5 – 40x

- WBC differential
- Count to 100



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Performing a differential WBC cell count

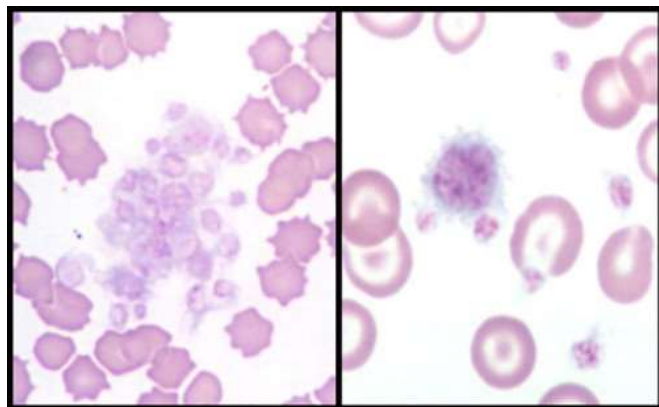


- Be systematic!
- Differential is done by counting 100 WBC in the monolayer on 40x or oil (doesn't matter – whatever you prefer)
- Alternatively: If you are pressed for time and smear looks generally wnl. Can state “wbc distribution agrees with bloodwork”

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Step 7 Platelet Estimate- 100x

- First – ALWAYS look for platelet clumps.
 - You can NOT get an accurate count if there is clumping
- Using oil immersion, count 10 fields of platelets, average and multiply by 15000 (7 platelets avg found = 105,000 platelets)
- Alternative: Quantify platelets as “adequate” (25+ seen on average on 40x)



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Tips

- There are a ton of potential abnormalities you might run into. Don't stress over 1 abnormal cell. Stress when you see a bunch of them.
- Use your resources, can't identify something? Look in a book. When in doubt, make your best judgement call and move on. We need to do these efficiently.
- Eclinpath.com and idexx learning center have a ton of helpful courses and info

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Recording your results

- See example on how to write on a CBC. Be systematic when describing what you see.
- Record your results in avimark, under the labwork item writing the same thing you write on the labwork.

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