



PRACTICAL SEXUALLY TRANSMITTED DISEASES

OBJECTIVES:

- Name various etiological agents causing STD.
- Describe the clinical presentations of STD.
- Discuss the microbiological methods used for Dx of STD.
- Outline the management of STD

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Very important

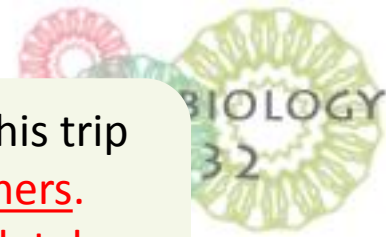
Additional information

Male doctor's notes

Female doctor's notes

Not important

CASE 1:



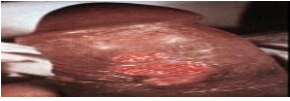

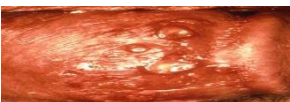
A 23-year-old alcoholic and drugs (cocaine) addict single male arrived from his trip to South East Asia four months ago. He gave history of multiple sexual partners. Two months ago, he developed ulcer on his penis which disappeared completely. A full physical notes a rash on both his palms and his soles.



1. What are the possible causes (organism) for his presentation (Genital ulcer)?

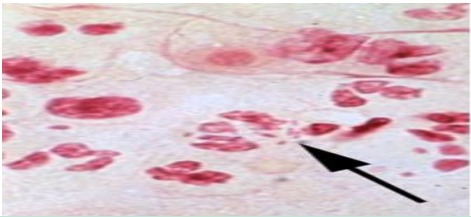
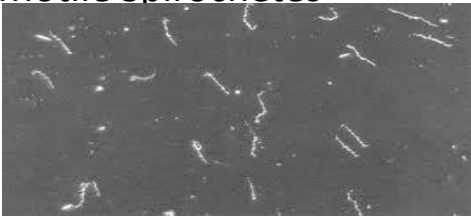
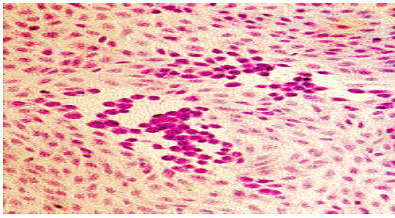
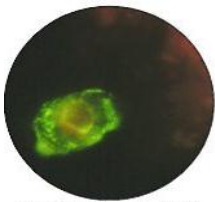
- Treponema Pallidum
- Herpes Simplex Virus 2
- Haemophilus Ducreyi

2. How could you differentiate between them based on (signs and symptoms) of the patient?

	Ulcer	Etiology	Ulcer	Lymphadenopathy(Babo)	Systemic
	Chancroid Wet chancer	<i>Haemophilus Ducreyi</i>	Wet, painful	Inguinal tender	Present
	Chancre Hard chancer	<i>Treponema Pallidum</i> <i>Cause syphilis</i>	Dry, painless and raised margin	Inguinal (hard)	Depends on stage
	Ulcerated Vesicles	<i>Herpes Simplex Virus 2</i>	Multiple shallow painful	Occasionally present	In primary ₂

3. What investigations would you like to order for him?

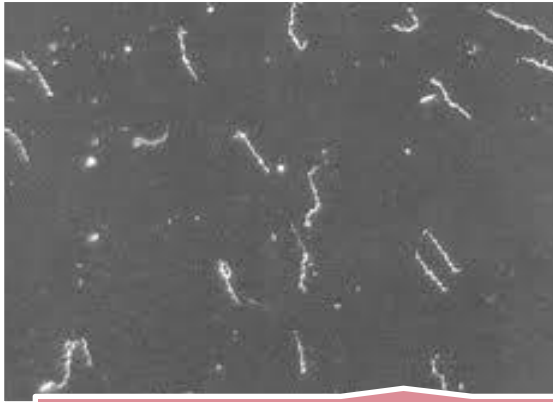
Explain how those investigations would help you?

Ulcer etiology	Microscopy	Culture	DFA 1	Serology
Haemophilus Ducreyi	Gram stain; gm-ve small diplococci & pus cell (neutrophil or WBCs) 	Selective media	NA	NA
Treponema Pallidum	Dark Field M; Motile Spirochetes  To visualize the spirochetes	Not grown	+	Nonspecific test: 1.RPR ₂ 2. VDRL for screen and follow up Specific tests: 1.TPHA ₃ 2.FTA.ABS ₄ confirm RPR and VDRL
Herpes Simplex Virus 2	EM –Not commonly used	Produce cytopathic effect in cell culture 	+ 	IgM + → primary acute infection IgG + → patient infected IgG +, IgM + → reactivation

DFA₁ :Direct Fluorescence Antibody Assay
 RPR 2: rapid plasma reagin

TPHA₃ :Treponema pallidum hemagglutination assay
 FTA.ABS₄:Fluorescent Treponemal Antibody Absorption

The lesion is sampled and examined by dark-field microscopy;



Finding: Motile Spirochetes

4. Base on the finding, what is the most likely diagnosis?

Secondary stage Syphilis.

5. Briefly outline the management of this patient?

1. Benzyl Penicillin. If patient is Hypersensitive: Tetracycline or Clarithromycin.
2. Screen for other STDs
3. Screen partner and manage accordingly
4. Counseling.

CASE 2:





A 35-year-old married male presented to the emergency room complaining of **dysuria** for the last 24-hour and noted some "**pus-like drainage**" in his underwear and the tip of his penis.

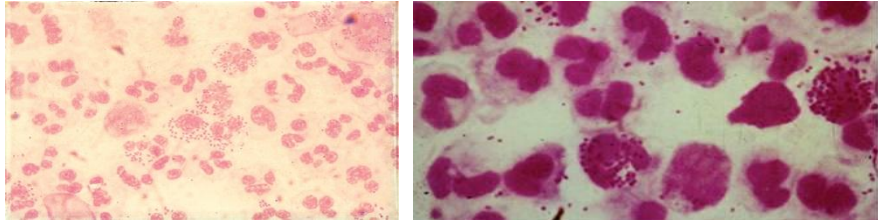
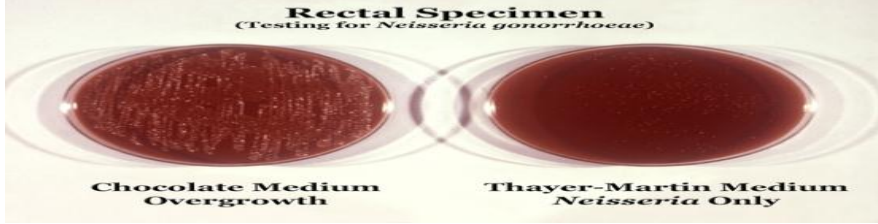
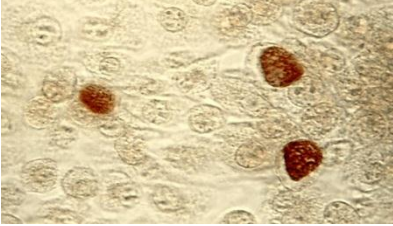
1. What is the most likely diagnosis?

1. **Gonococcal Urethritis**
2. Non-gonococcal urethritis

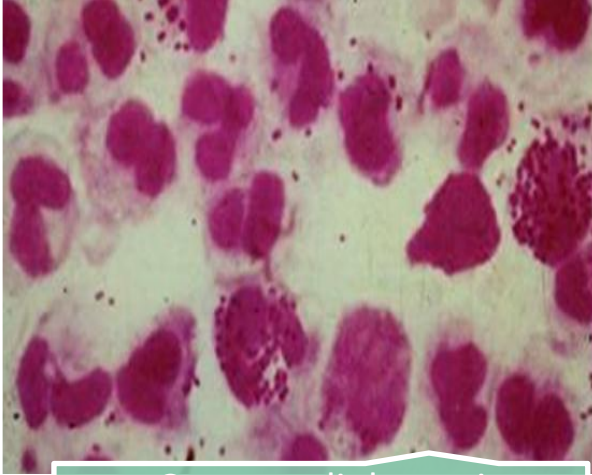
2. What are the possible causes for his presentation?

		Organisms	Urethritis
	Gonococcal Urethritis	<i>Neisseria gonorrhoeae</i>	Purulent discharge
	Non-gonococcal urethritis	<i>Chlamydia trachomatis</i>	Mucopurulent
		<u>Others</u> <ul style="list-style-type: none">• <i>Trichomonas vaginalis</i>• <i>Mycoplasma</i>	

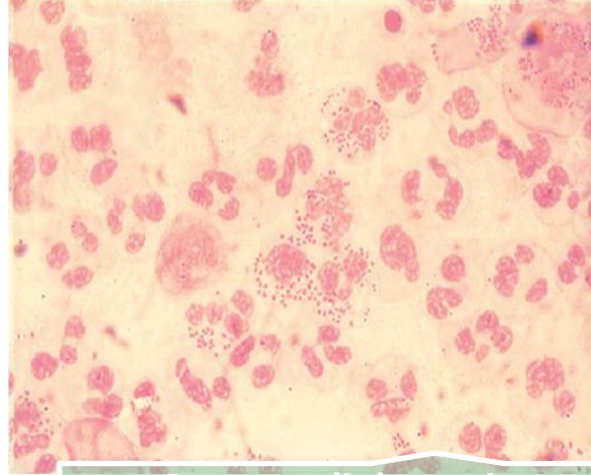
3. What investigations do you like to order for him? Explain how those investigations would help you?

Organisms	Smear/ Culture	Immunological tests	Molecular testing
GCU	<p><i>Neisseria gonorrhoeae</i></p> <p>Gram-ve diplococci intracellular & pus cell</p>  <p>Selective media Chocolate medium & Thayer-Martin Medium</p> 	-	+ve (Gold Standard)
NGCU	<p><i>Chlamydia trachomatis</i></p> <p>Pus cell/McCoy Cell culture</p>  <p>Finding : number of intracellular <i>C. trachomatis</i> inclusion bodies</p>	DFA	+ve (Gold Standard)
	<p><u>Others:</u></p> <ul style="list-style-type: none"> - <i>Trichomonas vaginalis</i> - <i>Mycoplasma</i> 	<ul style="list-style-type: none"> EIA EIA 	<ul style="list-style-type: none"> +ve +ve <p style="text-align: right;">6</p>

Finding:



Gram-ve diplococci
intracellular & pus cell



Gram-ve diplococci
intracellular & pus cell

4. Base on the finding, what is the most likely diagnosis?

Gonococcal urethritis.

5. Briefly outline the management of this patient?

1. Ceftriaxone or azithromycin. (others antibiotics that can be used ciprofloxacin, tetracycline)
2. Screen for other STDs.
3. Screen the partner and treat accordingly.

CASE 3:



A 24-year-old female noted **vaginal itching and irritation with a discharge**. Previously, she developed a yeast infection that was treated with over-the-counter medications and resolved. Thinking that this was recurrence, she again self-treated. This time, however, the symptoms did not resolve.

1. What are the possible causes for her presentation?

-Bacterial vaginosis

-Candida vaginitis

-Trichomoniasis

-Allergic vaginitis

-Chlamydia trachomatis

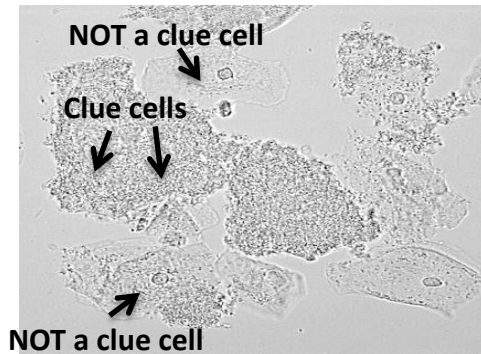
-Neisseria gonorrhoeae

2. What investigations would you like to order for her? Explain how those investigations would help you?

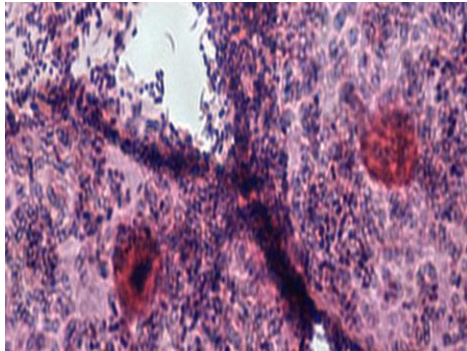
	PH	Whiff test	Gram stain/Wet prep "pictures next slide"	Culture	Immunologic/ molecular test
Bacterial vaginosis	>4.5	+++ Fishy Odor	Clue cells	Not helpful	DNA Probe
Candida vaginitis	<4.5	-	Yeast and pseudohyphae	Candida	DNA Probe
Trichomonas vaginalis	>4.5	+/-	Trichomonas	Motile Trophozoites	EIA DNA Probe

Bacterial vaginosis

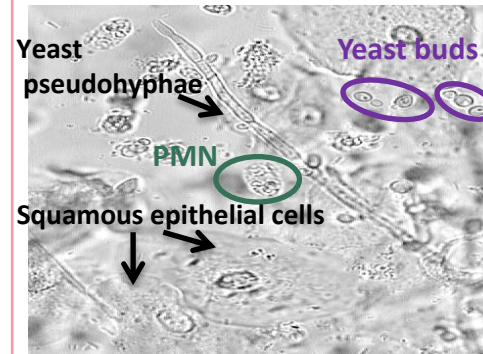
Wet prep



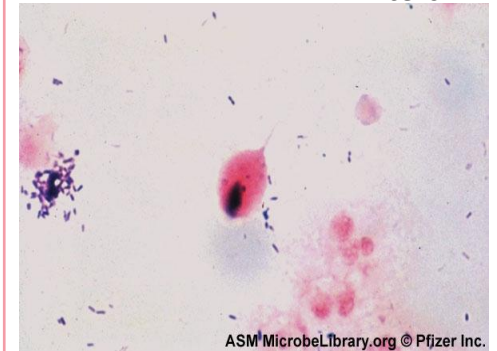
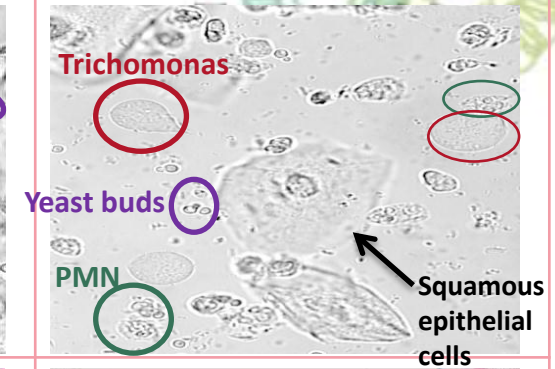
Gram stain



Candida vaginitis



Trichomonas vaginalis



Clinical diagnosis of bacterial vaginosis:

3 out of 4 of these criteria:

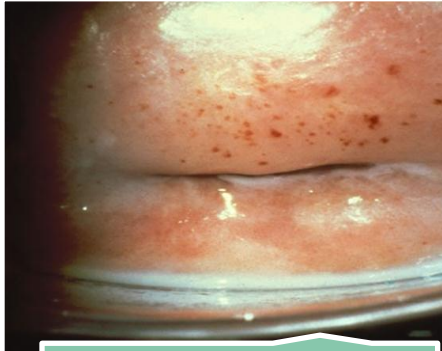
- pH greater than 4.5.
- Positive Whiff test.
- Any clue cells.
- Homogenous discharge

Case 3cont:

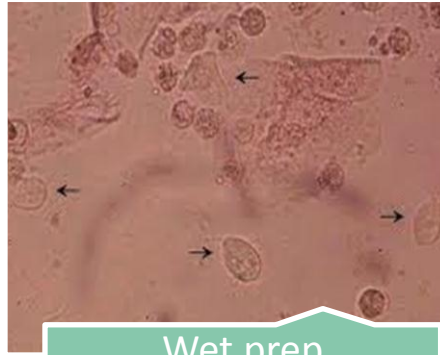
She presented to her family physician for management. On examination there is a **bad odor** along with a **frothy discharge** and **strawberry cervix**.

Swab of the secretions was taken in order to perform tests.

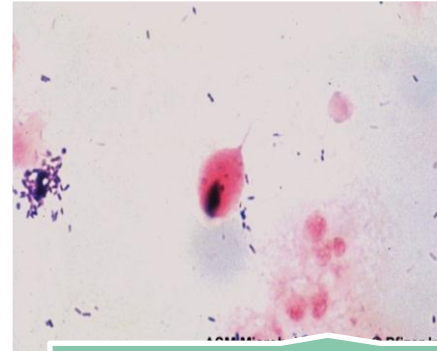
Finding :



Strawberry Cervix



Wet prep
"swimming" Motile
Trophozoites .



Gram stain



Trichomonas vaginalis

3. Base on the finding, what is the most likely diagnosis? Briefly outline the management this case?

Diagnosis: Trichomoniasis.

Management:

1. Metronidazole (flagyl)
2. Screen for other STDs.
3. Screen partner and treat accordingly

4. What organisms would you screen for in any patient presented with any STD?

HIV

Chlamydia

Hepatitis B, Hepatitis C

Gonorrhea

Herpes