Case 3

Vaginosis and HPV

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Vaginosis-HPV Case

- 42 year-old patient.
- Childhood illnesses. No known allergies. No surgeries.
- History: 1 miscarriage and 1 natural pregnancy. Breastfeeding 3-4 months.
- Periodic check-ups with normal cytology, last mammogram 2 years ago. Not vaccinated against HPV.
- Separated 3 years ago.
- New partner since approximately one year ago.
- Consults due to presenting, for about 3 months, an increase in whitish vaginal discharge, somewhat grayish, and pain during intercourse with an increase in odor after intercourse. These symptoms are accompanied by some fluctuating urinary discomfort, with improvements and flare-ups over this period of time.

Vaginosis-HPV Case

- A few years ago she had a yeast infection and does not remember having the same symptoms as in that episode.
- She has douched, as recommended by a friend, with bicarbonate, and experienced no relief from her symptoms.
- She has a high degree of concern and expresses frustration with herself and in the change to her relationship.

Examination

- **Examination:** increase of vaginal discharge, no inflammatory signs.
- **Colposcopy:** minor changes, not requiring biopsy. ASC-US cytology. **(Figure 1)**
- **Wet mount test:** increase in cocci bacteria and signs of cellular coating with “clue cells”. **(Figure 2)**
- **pH test:** 5
- **HPV sample positive for serotype 33.**

Figure 1

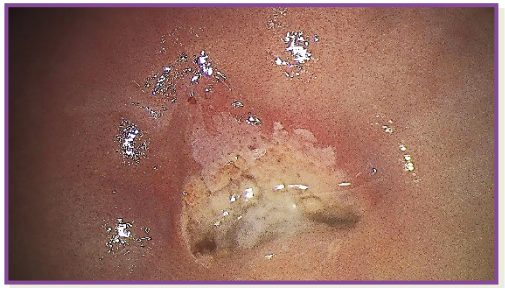
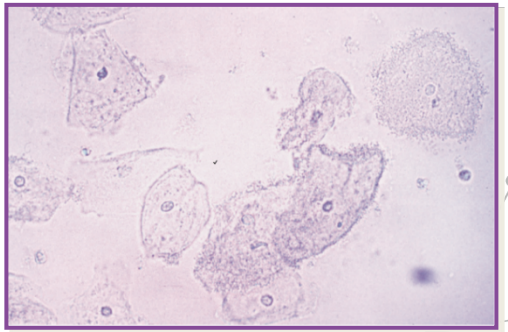


Figure 2



Diagnosis

Based on the symptoms/signs presented, this appears to be bacterial vaginosis

- Increased discharge (whitish, grayish).
- Foul odor after intercourse.
- New sexual partner.
- Douching with an alkali (bicarbonate) has increased the pH, facilitating the growth of anaerobes: *Gardnerella* and *Atopobium*.
- The patient refers to symptoms different from the episode of candidiasis she had. These problems are not identified as associated with candidiasis.

Diagnosis

Diagnostic tests:

pH test and a wet mount preparation of a vaginal smear.

The elevated pH and appearance of “clue cells” in the smear indicate conclusively:

Diagnosis: Amsel Criteria

1. **Leukorrhea, where color and amount may vary.**
2. **Amine (fishy) odor when potassium hydroxide solution is added to the smear (“whiff test”).**
3. **The presence of *Clue cells** (greater than 20% of cells) on microscopy.**
4. **pH greater than 4.5.**

With 3 criteria we can make the diagnosis simply

In this case the diagnosis is made by:

A. Increased discharge (whitish, grayish).

B. Foul odor after intercourse.

C. Douching with an alkali (bicarbonate), which has increased the pH, facilitating the growth of anaerobes (*Gardnerella* and *Atopobium*) without improving symptoms.

D. All of the above.

Differential Diagnosis

SYMPTOMS

BACTERIAL VAGINOSIS	AEROBIC VAGINITIS	CANDIDIASIS	TRICHOMONIASIS
Approximately 50% asymptomatic	10-20% asymptomatic	10-20% asymptomatic	10-50% asymptomatic
“Fishy” odor	Purulent discharge	Vaginal itching	Malodorous discharge
No inflammatory signs Absence of vaginitis	Vulvar burning and stinging	Vaginal discomfort	Vulvar itching/irritation
	Dyspareunia	Odorless discharge	Dysuria
		Dyspareunia	Unusually low abdominal discomfort

SIGNS

BACTERIAL VAGINOSIS	AEROBIC VAGINITIS	CANDIDIASIS	TRICHOMONIASIS
Homogeneous white/gray, thin discharge, covering the walls of the vagina and vestibule	Purulent discharge	Vulvar erythema	Vulvar erythema
Absence of vaginitis	Vulvar erythema and edema	Vulva fissures	Vaginitis
	Vaginal ulcers	Increase of odorless discharge	Bubbly vaginal discharge in 70% and yellow in 10-30%
		Distant skin lesions	Approx. 2% “strawberry cervix” visible to naked eye
		Vulvar edema	5-15% without signs

Which of the following is false for Bacterial Vaginosis?

A. It is a dysbiosis of the vaginal microbiota.

B. *Gardnerella vaginalis* is always present.

C. It has a high rate of recurrence.

D. pH is > 4.5.

With regard to Bacterial Vaginosis:

A. We can consider it an STI.
B. Its diagnosis is by vaginal culture.
C. It can be asymptomatic in 50% of cases.
D. A vaginal pH below 4.5 can guide its diagnosis if accompanied by increased discharge.

Treatment

- Medical treatment depends on metronidazole and clindamycin, with the same evidence for resolution.
- Dequalinium (non-antibiotic antiseptic) can be used for 6 days.
- Recommend lactic acid suppositories for 5-7 days to diminish pH quickly and eliminate foul odor in 48 hours. With the frequency of recurrence for vaginosis, they can be used preventively for 3 nights after the end of menstruation and for several months.
- The use of vaginal and oral probiotics can also be recommended, post-menstruation to re-establish the vaginal ecosystem and avoid vaginosis.

Treatment

- In this case, after treatment with dequalinium chloride for 6 days, and aware of the cytology result: ASC-US, it was recommended to use a gel based on *Coriolus versicolor*, *Centella asiatica* and a prebiotic on alternating days for 3 months.

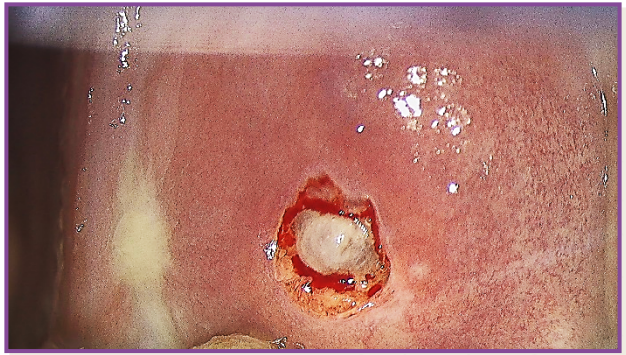
- Although vaginosis is related to sexual activity, it is not considered an STI. Treatment is not recommended for the partner, unless they present symptoms. The partner can be advised to use a condom for a period of time.

- Recommend vaginal hygiene measures.

- Recommend the nonavalent vaccine against HPV.

- Check-up at 6 months with normal cytology. A viral sample is obtained for HPV with a negative result. See colposcopy at 6 months. **Figure 3**

Figure 3



With regard to treatment of Bacterial Vaginosis

A. It should only be treated with antibiotics (oral or vaginal).
B. Dequalinium should not be used during pregnancy.
C. Lactic acid can be used initially if there is foul odor.
D. In recurrences, always use vaginal metronidazole.

Comments

In this case, the conjunction of a cytological lesion of undetermined significance (ASC-US) with bacterial vaginosis has determined a non-antibiotic treatment for vaginosis: dequalinium chloride, an antimicrobial antiseptic with a broad range of bactericidal and fungicidal activity with few systemic effects and with efficacy comparable to clindamycin[1].

Bacterial vaginosis is a condition of vaginal dysbiosis with a substantial increase in bacterial diversity, inhibiting HPV clearance and facilitating progression toward malignancy[2,3].

Subsequently, a gel based on *Coriolus versicolor*, *Centenella asiatica* and a prebiotic was administered for 3 months to re-epithelialize and reestablish the vaginal ecosystem[4-6].

The recurrence of vaginosis is common, up to 30% within 3 months and 50% in the following 12 months, having a link to progression of HPV-induced cervical lesions. There is an association between certain types of vaginal microbiota, HPV infection, and HPV-related disease[7].

Bibliography

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