

Desquamative inflammatory vaginitis in a trans-man: a case report

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Introduction

- Desquamative inflammatory vaginitis (DIV), a severe form of aerobic vaginitis, is an under recognised cause of abnormal vaginal discharge and discomfort
- Oestrogen deficiency is thought to be a key risk factor¹
- Trans-men on testosterone therapy for gender affirming care are therefore more likely to experience DIV.

Desquamative inflammatory vaginitis vs. Atrophic vaginitis

- DIV is a diagnosis of exclusion, with key microscopy features. There are no established tests for DIV, but gram stain features include:^{1,2}
 - Reduced/absent lactobacilli (elevated pH)
 - Increased number of parabasal (immature rounded squamous epithelial cells) and numerous polymorphonuclear leucocytes (PMN) (Fig. 1)
 - Mixed flora often with gram positive cocci
- Significant inflammation distinguishes DIV from atrophic vaginitis, leading to pain, copious discharge, and profuse inflammatory cells on microscopy.

Case Report

Presenting complaint:

A 42-year-old trans-man presents with one week of abnormal vaginal discharge and pain - no vulval lesions, abdominal pain or vaginal bleeding.

Past medical history

- Gender dysphoria – Testosterone therapy for last 16 years
- Normal cervical screening test this year

Medications

- Testosterone undecanoate 1000mg/4ml IM 3 monthly
- Tenofovir disoproxil 300mg/Emtricitabine 200mg daily (PrEP)
- Estriol 0.5mg/0.5g vaginal cream twice weekly (intermittent)

Examination

- Abdomen: soft, suprapubic tenderness
- Atrophic vulval changes, no ulcerative lesions
- Unremarkable bimanual examination
- Profuse grey discharge noted on speculum examination.

Investigations

- Vaginal fluid pH 6.
- Urine bHCG negative.
- Gram stain: 30 polymorphonucleocytes (PMNs) per high powered field, no hyphae or clue cells.
- HIV and Syphilis serology negative.
- Vaginal *Chlamydia trachomatis*, *Neisseria gonorrhoeae*, *Mycoplasma genitalium* and Herpes Simplex Virus tests negative.
- Nugent score 4 on high vaginal swab.

Initial management

- Treated for Pelvic Inflammatory Disease (PID).

Three months later...

He represented with abnormal vaginal discharge and pain. Examination and investigations were similar to previous.

- Vulval and speculum examination: profuse discharge
- Investigations repeated and all unremarkable. *Trichomonas vaginalis* NAAT negative.
- Gram stain suspicious for DIV (Fig. 1).

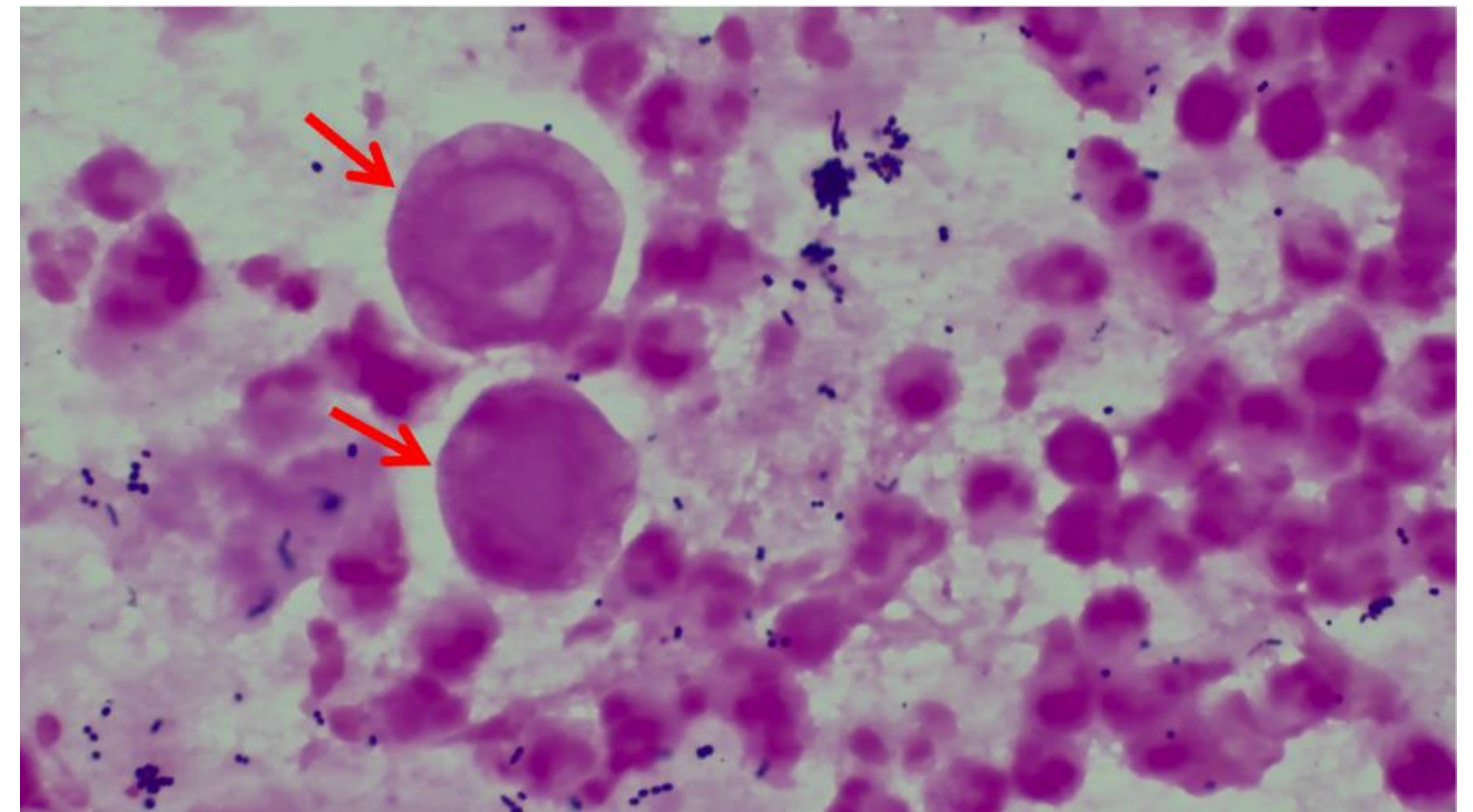


Figure 1: A gram stain at 100x magnification of vaginal fluid showing features typical of DIV. Parabasal cells (red arrows) are present along with numerous PMNs. There are clusters of gram positive cocci, and minimal lactobacilli.

Managing desquamative inflammatory vaginitis^{1,3}

- Address concomitant issues, such as reduced oestrogen.
- Intravaginal clindamycin +/- glucocorticoids daily for 1 – 3 weeks.
- Consider ongoing maintenance therapy with topical clindamycin or glucocorticoids once or twice a week for up to 6 months.

Case outcome

- At follow up 1 month later he reported symptom resolution. Maintenance therapy was prescribed.

In retrospect...

- On file review, he had at least three previous presentations over the last 2 years with similar symptoms and findings on gram stain and microbiology
- Formal results were negative for STIs with Group A or B Streptococcus on culture
- He was treated for presumptive PID or Gonorrhoea on each occasion
- These may in fact have been due to DIV, where symptoms can fluctuate and relapse is common.⁴

Discussion

- DIV should be considered as a differential for trans-men who present with recurrent vaginal discharge and pain
- This may potentially prevent unnecessary antibiotic treatment
- Diagnosis can be challenging, and it is still unclear if long-term remission is achievable.

References

- Paavonen J, Brunham RC. Bacterial vaginosis and desquamative inflammatory vaginitis. N Engl J Med 2018; 379 (23):2246-2254.
- Mason MJ, Winter AJ. How to diagnose and treat aerobic and desquamative inflammatory vaginitis. Sex Transm Infect 2017; 93:8-10.
- 2018 European (IUSTI/WHO) Guideline on the Management of Vaginal Discharge. https://iusti.org/wp-content/uploads/2023/04/IUSTI-vaginal-discharge-guidelines_2023.pdf
- Martin CD, Holland AM. Desquamative inflammatory vaginitis: a closer look. J. Nurse. Pract. 2020 (16): 732-734.