Cinsel Yolla Bulaşan Enfeksiyonlar ve HIV Enfeksiyonu

Dr Özlem Altuntaş Aydın

CYBE/HIV neden önemli?

1. CYBE- yüksek riskli davranışın göstergesi
2. CYBE'lerin çoğu asemptomatik
3. CYBE- toplum sağlığı problemi
4. CYBE- HIV bulaşını arttırır
5. HIV insidansı halen yüksek

Getting to zero = CYBE'lerin daha efektif taranması ve tedavisi gerekli

AIDS Patient Care STDS. 2005 Aug;19(8):495-8.

Syphilis, chlamydia, and gonorrhea screening in HIV-infected patients in primary care, San Francisco, California, 2003.

Phipps W[1], Stanley H, Kohn R, Stansell J, Klausner JD.

Author inf

Asemptomatik HIV-enfekte hastada
Sy, ürogenital, farengeal, rektal GC, CT

%1.8 yeni Sy
%10.2 rektal gonore/*C. trachomatis*

Abstract

The Centers ersons in order to reduce HIV t tal gonorrhea (GC) and chlamyd We found 15 new syphilis infections and CT infections occurring at nonurethral sites. Our study reveals a high rate of asymptomatic STDs among HIV-infected patients in primary care and supports the CDC recommendations to screen HIV-infected patients for STDs at all relevant anatomic sites.

Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report
Recommendations and Reports / Vol. 64 / No. 3
June 5, 2015

Sexually Transmitted Diseases Treatment Guidelines, 2015

Recommendations and Reports

CONTENTS

CONTENTS (*Continued*)

STI screening and treatment

STI screening should be offered to all sexually active HIV-positive persons at the time of HIV diagnosis, annually thereafter or at any time STI symptoms are reported and during pregnancy. Diagnosis procedures should follow local or national guidelines. More comprehensive advice can be found at http://www.iusti.org/regions/Europe/euroguidelines.htm

The following STIs should be universally considered in HIV-positive persons and their sexual partner(s):

	Therapy	Comment
Chlamydia infection	Consider doxycycline (100 mg bid po 7-10 days, contraindicated in pregnancy) or azithromycin (1 g po as a single dose) for urethritis and cervicitis. For *Lymphogranuloma venereum (LGV)* doxycycline (100 mg po bid for 21 days) or azithromycin (1 g po every week for 3 weeks). **Alternatives:** erythromycin (500 mg/6 h po[i]) or levofloxacin (500 mg/day) for 7 days (or 21 days in case of LGV)	• May cause therapy-resistant proctitis in HIV-positive MSM • Consider co-infections with *Neisseria gonorrhoeae*
Gonorrhoea	Ceftriaxone (500 mg im as a single dose) together with azithromycin (1 g po as a single dose).	• Can cause proctitis, prostatitis and epididymitis • In women often asymptomatic • Fluoroquinolone resistance is highly prevalent in all regions
HBV infection **HCV infection**	See table on HIV/HCV or HIV/HBV co-infections, pages 80-85	• Interruption of TDF, 3TC or FTC can lead to HBV reactivation • Clusters of acute HCV infection in HIV-positive MSM across Europe
HPV infection	There are several treatment modalities for the management of genital warts with no evidence to suggest one approach is better than another approach. Consider operative removal by laser surgery, infrared coagulation, cryotherapy, etc. Management of both pre-invasive cervical lesions as well as peri- and intra-anal lesions should follow local or national guidelines	• Infection is mostly asymptomatic; relapse of genital warts is frequent • Cervical PAP smear test recommended in all HIV-positive women • Anal HPV screening and cytology should be considered in all HIV-positive persons practising anal sex • Consider high resolution anoscopy in case of suspicious cytological findings (rectal palpation or external inspection is not sufficient)
HSV2 infection	Primary infection: aciclovir (400–800 mg po tid) or valaciclovir (500 mg po bid) for 5 days, see page 91	• Treatment of HSV2 alone does not prevent HIV-transmission and only modestly prevents HIV disease progression
Syphilis	Penicillin is the gold standard for the treatment of syphilis in both pregnant and non-pregnant individuals. **Primary/secondary syphilis:** benzathine penicillin G (2.4 million IU im as single dose). In early syphilis adjunctive treatment with prednisolone (20–60 mg daily for 3 days) prevents optic neuritis, uveitis and Jarisch–Herxheimer reaction. **Late latent syphilis and syphilis of unknown duration:** benzathine penicillin (2.4 million IU im weekly on days 1, 8 and 15); the alternative doxycycline (100 mg po bid for 2 weeks) is considered less effective. **Neurosyphilis:** penicillin G (6 x 3 - 4 million IU iv for at least 2 weeks). There is no evidence to give a general recommendation on prednisolone use in this condition.	• Expect atypical serology and clinical courses • Consider cerebrospinal fluid (CSF) testing in persons with neurological symptoms (evidence for intrathecally-produced specific antibodies, pleocytosis, etc.) • Successful therapy clears clinical symptoms and decreases VDRL test four-fold within 6-12 months

i Rarely used

no longer necessary because of effectiveness of ART in avoiding HIV transmission at conception in HIV-positive male persons with undetectable HIV-VL.

Sexual dysfunction

Guidelines for treatment of sexual dysfunction in the general population are available for men but not women. Refer to specialist where appropriate. See Sexual Dysfunction and Treatment of Sexual Dysfunction in HIV-positive Men

BHIVA 2016 monitoring guideline recommendations for STI and hepatitis screening

Baseline

- We recommend a full STI screen is offered to all PLWH at baseline, to be directed by the sexual history. The screen should include syphilis serology for all, vulvo-vaginal swabs for chlamydia and gonorrhoea Nucleic Acid Amplification Tests (NAAT) for all women, urine testing for chlamydia and gonorrhoea NAAT for men, and pharyngeal and rectal swabs for chlamydia and gonorrhoea NAAT for MSM and heterosexual women with a history of oral or anal sex (1B).
- Hepatitis A virus IgG (or total)
- Hepatitis B tests:
    - Surface antigen (HBsAg)
    - Anti-core total antibody (anti-HBc)
    - Anti-surface antibody (anti-HBs)
- Hepatitis C virus antibody
    - If positive test RNA (at least twice if initially negative)

Annually

- Screen for gonorrhoea and chlamydia all exposed sites if partner change since the last test (self-taken swabs if asymptomatic);
- Syphilis serology if partner change since the last test;
- Hepatitis B (for infection or immunity) and C screening (in at-risk patients).

Three-monthly

We recommend 3-monthly screening for STIs if the patient has high risk factors for acquisition, e.g. MSM with frequent partner change or chemsex/IVDU with chaotic lifestyle/CSW/patients who frequently use intranasal cocaine/recent tattoo abroad/recent blood transfusion abroad/other risk (1B)

Hepatitis A virus exposure among HIV/AIDS patients in Istanbul, Turkey

Ozlem Altuntas Aydin[1], Hayat Kumbasar Karaosmanoglu[1], Emine Rahsan Ince[1], Hayriye Esra Ataoglu[2]

[1] Department of Infectious Diseaes and Clinical Microbiology, Haseki Training and Research Hospital, Istanbul, Turkey.
[2] Department of Internal Medicine, Haseki Training and Research Hospital, Istanbul, Turkey.

Abstract

Introduction: Although the Hepatitis A virus (HAV) does not cause chronic hepatitis, the morbidity in HIV-infected patients is substantial. We aimed to determine the seroprevalence and related risk factors of HAV infection among HIV/AIDS patients in Istanbul, Turkey, which is classified intermediate HAV

Methodology tients that were between 2006 ar dy. Demographi transmission rou tional status, CI were collected cords. All analys version 16.0 soft

Results: Mea 20-79) and 83% transmission wa by homosexual tage of patients 58.6% and the 393.6 cells/mm3

Table 1. Characteristics of HAV IgG seropositivity according to sexual preferences in men

	Heterosexual n=129 n (%)	Homosexual n=73 n (%)	p
HAV IgG positivity	123 (%95.3)	61 (%83.5)	=0.005
Mean age in HAV IgG (+) patients	40.19 ±13.54	37.43±10.37	=0.42
Education level - Primary school - Secondary school - College/University	 85 (%65.9) 36 (%27.9) 8 (%6.2)	 27 (%37) 21 (%28.8) 25 (%34.2)	<0.001

Introduction

Hepatitis A virus (HAV) is one of the most common causes of acute, usually self-limiting disease that doesn't lead to chronic hepatitis and the main route of transmission is faecal-oral. Transmission also via blood and blood products has been reported rarely [1, 2]. Hence, faecal-oral transmi- nal sex is probably n among men who

ection shows diffe- this may be attribu- hygienic standards, nd cultural factors. try for hepatitis A ptomatic infections ing to a study con- e contribution of 10 HAV positivity was 1% in Turkey. This positivity increases exposure skips to his study being con- s A vaccination was

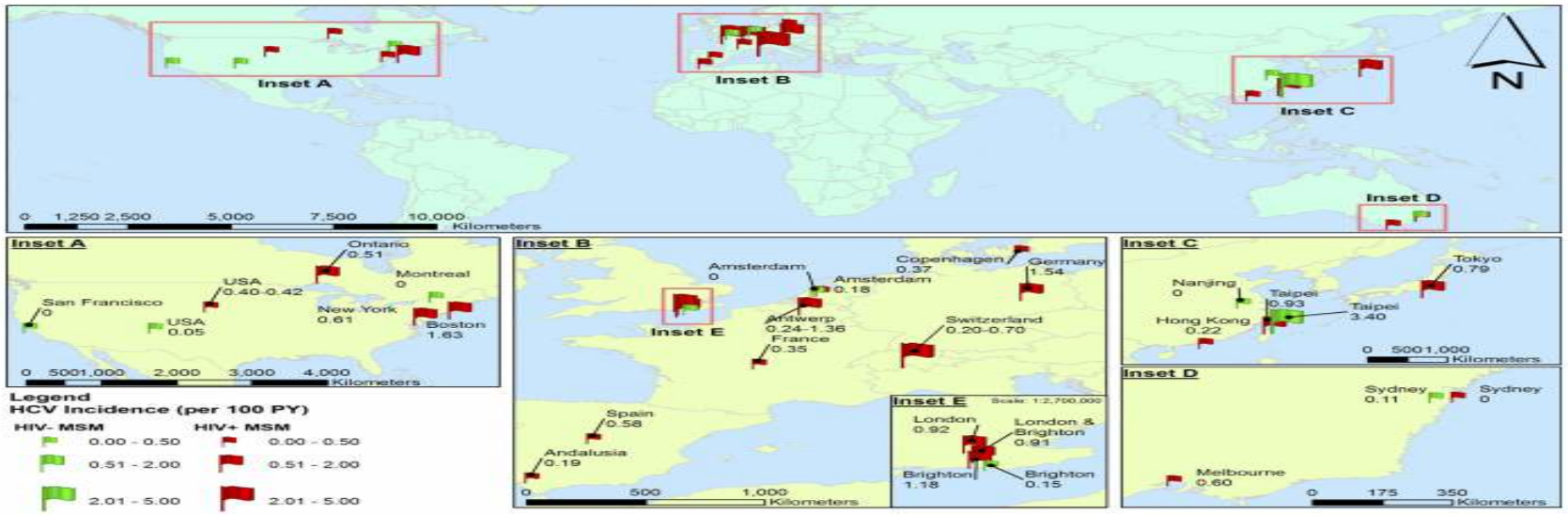


Figure 1. Overview of acute HCV infection in HIV-positive and HIV-negative MSM (HCV, hepatitis C virus; MSM, men who have sex with men; PY, person-years).

- HIV/HCV'de semende HCVRNA daha yüksek ??
- HIV seropozitif partner tercihi (kondom kullanmama!)
- ART
- Yüks klu part
- Ülse
- Kror
- Kokain, non-IVDU, kimyasal seks
- Seyahat, sosyal medya ile edinilen partner

ORIGINAL ARTICLE

Sex, drugs and smart phone applications: findings from semistructured interviews with men who have sex with men diagnosed with *Shigella flexneri* 3a in England and Wales

V L Gilbart,[1] I Simms,[1] C Jenkins,[2] M Furegato,[1] M Gobin,[3] I Oliver,[3] G Hart,[4] O N Gill,[1] G Hughes[1]

ABSTRACT

Objectives To inform control strategies undertaken as part of an outbreak of *Shigella flexneri* 3a among men who have sex with men (MSM).

associated with sexual transmission, predominantly among men who have sex with men (MSM). Since sexual transmission of shigellosis was first described in 1971, outbreaks of *S flexneri* and *S sonnei* asso-

AIDS. 2009 Jul 31;23(12):F1-7. doi: 10.1097/QAD.0b013e32832e5631.

Hepatitis C virus infections among HIV-infected men who have sex with men: an expanding epidemic.

Urbanus AT[1], van de Laar TJ, Stolte IG, Schinkel J, Heijman T, Coutinho RA, Prins M.

⊕ Author information

Abstract

BACKGROUND: Since 2000 outbreaks of sexually transmitted hepatitis C Virus (HCV) infections have been reported among HIV-infected men who have sex with men (MSM). We studied the prevalence and determinants of HCV-infection among MSM attending a large sexually transmitted infection (STI) clinic in the Netherlands.

METHODS: In 2007-2008, 3125 attendees of the STI clinic Amsterdam, including 689 MSM, participated in an anonymous

689 MSM

532'si HIV (-)

%0.4 HCV

157'si HIV (+)

%17.8 HIV/HCV

%17'si IDU

%25'i akut HCV

STI screening recommendations by gender and population

Gender	Population	Routine screening recommendation	Screening frequency	Additional screening recommendations and comments
Women	HIV-infected	Genital chlamydia	Annually	
		Genital gonorrhea	Annually	
		Genital trichomoniasis	Annually	
		Syphilis	Annually	
		HBV	First visit	
		HCV	First visit	
Men	HIV-infected MSW	Genital chlamydia	Annually	
		Genital gonorrhea	Annually	
		Syphilis	Annually	
		HBV	First visit	
		HCV	First visit	
	HIV-infected MSM	Genital chlamydia	At least annually	More frequent screening (every 3 months) for chlamydia, gonorrhea, and syphilis is recommended in those with risk factors. More frequent screening for HCV may also be warranted.[Δ]
		Rectal chlamydia (if exposed)	At least annually	
		Genital gonorrhea	At least annually	
		Rectal gonorrhea (if exposed)	At least annually	
		Pharyngeal gonorrhea (if exposed)	At least annually	
		Syphilis	At least annually	
		HAV	First visit	
		HBV	First visit	
		HCV	At least annually	

Δ Increased risk factors for gonorrhea, chlamydia, syphilis, and HIV among MSM include multiple or anonymous partners; intravenous drug use; sex in conjunction with illicit drug use, including methamphetamines; sex partners who engage in these activities. Increased risk factors for hepatitis C infection among MSM include HIV infection, high community HCV prevalence and incidence, high-risk sexual behaviors, and concomitant ulcerative STIs or STI-related proctitis.

Adapted from: California Department of Public Health, Sexually Transmitted Diseases Branch. California STD screening recommendations, 2015. Available at: https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/CA_STD-Screening-Recs.pdf#search=std%20screening%20recommendations (Accessed on August 30, 2017).

Tarama oranları suboptimal

J Acquir Immune Defic Syndr. 2015 Nov 1;70(3):275-9. doi: 10.1097/QAI.0000000000000711.

Brief Report: Gonorrhea and Chlamydia Testing Increasing but Still Lagging in HIV Clinics in the United States.

Berry SA[1], Ghanem KG, Mathews WC, Korthuis PT, Yehia BR, Agwu AL, Lehmann CU, Moore RD, Allen SL, Gebo KA; HIV Research Network.

⊕ Collaborators (31)

⊕ Author information

Abstract

Screening persons living with HIV for gonorrhea and chlamydia has been recommended since 2003. We compared annual gonorrhea/chlamydia testing to syphilis and lipid testing among 19,368 adults (41% men who have se... nd 70% of all p... ng steadi... 2010 remain... gonor...

Kuzey Amerika'da çok merkezli çalışma
19368 HIV-enfekte olguya
(%41 MSM, %29 kadın, %30 heteroseksüel erkek)
yapılan yıllık gonore, klamidya testleri ile sifiliz ve lipid testleri karşılaştırılmış
%39'unda gonore ve klamidya bakılırken
sifiliz %76, lipidler %77'sinde değerlendirilmiş

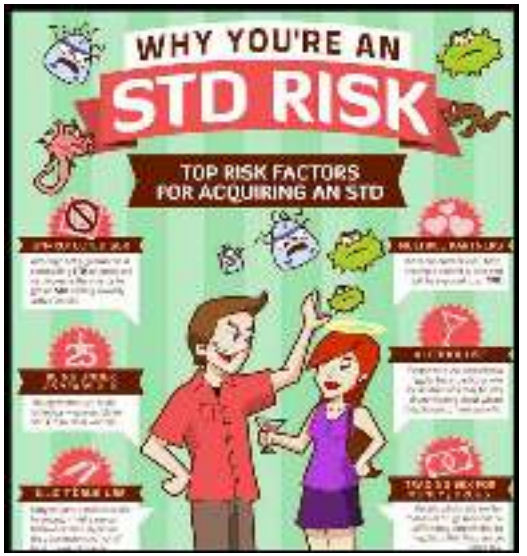
CYBE risk değerlendirmesi

Davranışsal risk faktörleri

- Son iki ayda yeni partner
- Multipl partner veya partnerin multipl partnerlerinin varlığı
- Kondom kullanmama
- Para veya kimyasal madde karşılığı seks
- Seks çalışanları ile seksüel temas (oral, anal, penil, vajinal)
- Sanal alemden edinilen partnerler

Risk gruplarının demografik özellikleri

- 15-24 yaş
- MSM
- Geçirilmiş CYBE
- Bekar olmak
- Düşük sosyoekonomik durum
- Lise veya daha düşük eğitim düzeyi
- Keyif verici madde kullanımı
- Gözetim altına alınmış olmak



BOX 1. The Five P's: Partners, Practices, Prevention of Pregnancy, Protection from STDs, and Past History of STDs

1. Partners
   - "Do you have sex with men, women, or both?"
   - "In the past 2 months, how many partners have you had sex with?"
   - "In the past 12 months, how many partners have you had sex with?"
   - "Is it possible that any of your sex partners in the past 12 months had sex with someone else while they were still in a sexual relationship with you?"
2. Practices
   - "To understand your risks for STDs, I need to understand the kind of sex you have had recently."
   - "Have you had vaginal sex, meaning 'penis in vagina sex'?" If yes, "Do you use condoms: never, sometimes, or always?"
   - "Have you had anal sex, meaning 'penis in rectum/anus sex'?" If yes, "Do you use condoms: never, sometimes, or always?"
   - "Have you had oral sex, meaning 'mouth on penis/vagina'?"
   - For condom answers:
   - If "never": "Why don't you use condoms?"
   - If "sometimes": "In what situations (or with whom) do you use condoms?"
3. Prevention of pregnancy
   - "What are you doing to prevent pregnancy?"
4. Protection from STDs
   - "What do you do to protect yourself from STDs and HIV?"
5. Past history of STDs
   - "Have you ever had an STD?"
   - "Have any of your partners had an STD?"

Additional questions to identify HIV and viral hepatitis risk include:
- "Have you or any of your partners ever injected drugs?"
- "Have your or any of your partners exchanged money or drugs for sex?"
- "Is there anything else about your sexual practices that I need to know about?"

Partner
- Özellikleri
- Sayısı
- Partnerinin partnerleri

Cinsel davranış
Kondom kullanımı

Kontrasepsiyon yöntemi

CYBE'lerden korunma yöntemleri

Geçirilmiş CYBE
Partnerinin geçirdiği CYBE

Hastaların belirttiği semptomlara veya temas öykülerine çok güvenmeyin!

Selektif veya semptoma yönelik tarama ile CYBE'lerin yarısı tespit edilemez

Sex Transm Dis. 2013 Apr;40(4):285-9. doi: 10.1097/OLQ.0b013e31828098f8.

Standard symptom- and sexual history-based testing misses anorectal Chlamydia trachomatis and neisseria gonorrhoeae infections in swingers and men who have sex with men.

van Liere GA[1], Hoebe CJ, Niekamp AM, Koedijk FD, Dukers-Muijrers NH.

⊕ Author information

Abstract

BACKGROU ost often when there i history-based testin

METHODS: s and their self-identifie universally te . We compared S

RESULTS: S 0% for bisexual MSI

CONCLUSIONS: Universal testing of STD clinic clients who were MSM and swingers yielded more than half of all anorectal STD infections and is more sensitive for identifying anorectal STD infections compared with selective testing. Universal testing may be a more effective strategy for interrupting the ongoing transmission in high-risk sexual networks.

1690 hasta rektal CYBH (NG, CT)

Homoseksüel MSM	%52
Biseksüel MSM	%40
Biseksüel erkek çoklu partnerli	%43
Heteroseksüel erkek çoklu partnerli	%40
Kadın çoklu partnerli	%47

Infections Missed by Urethral-Only Screening for Chlamydia or Gonorrhea Detection Among Men Who Have Sex With Men

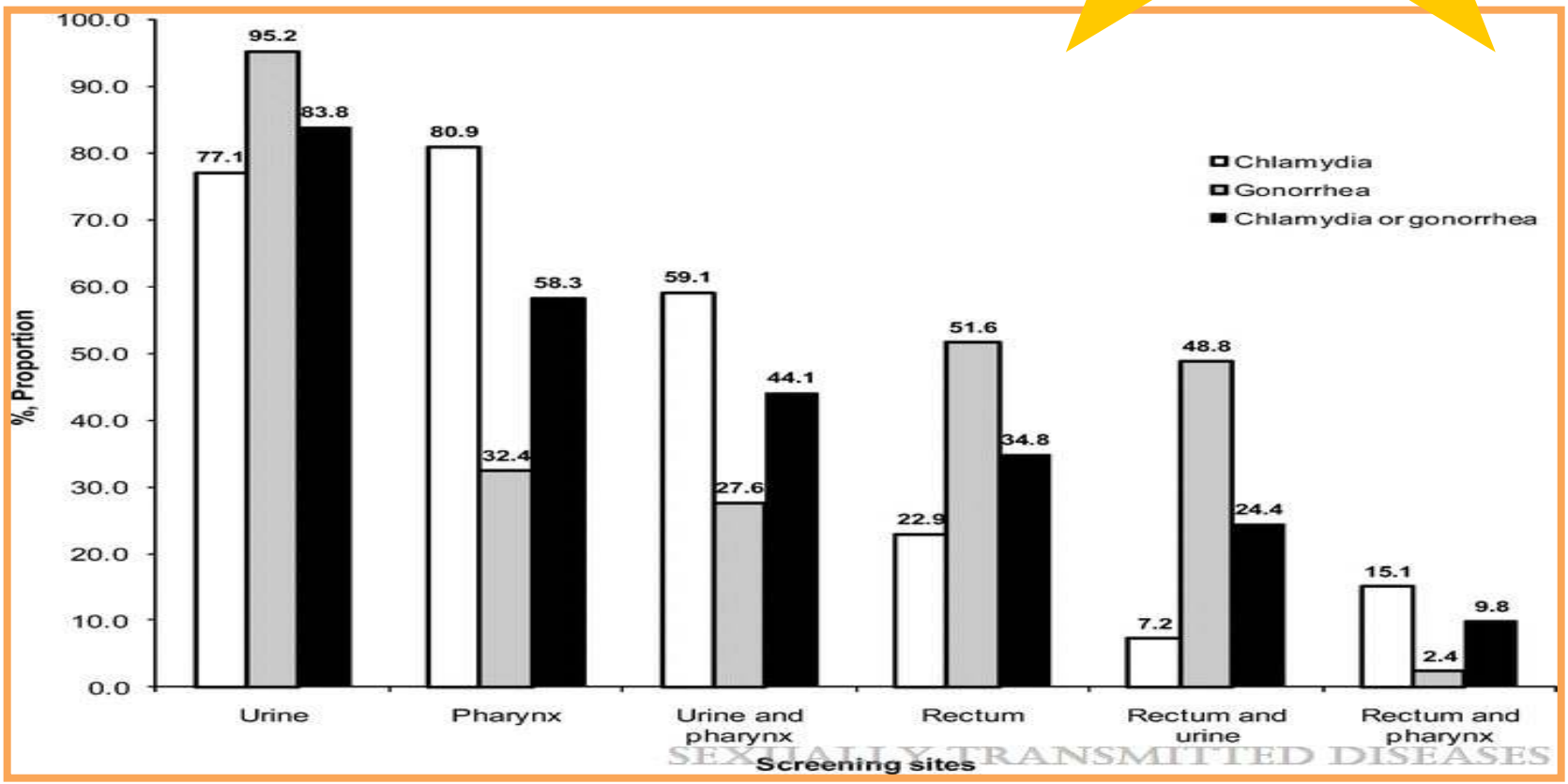
Julia L. Marcus, MPH, Kyle T. Bernstein, PhD, ScM,*† Robert P. Kohn[illegible]* Sally Liska, DrPH,* and Susan S. Philip, MD, MPH**

Abstract: In a retrospective analysis of asymptomatic men who have sex with men visiting an urban municipal sexually transmitted disease clinic, 83.8% of chlamydial and gonococcal infections would have been missed by urethral screening, compared with 9.8% by screening the rectum and pharynx. Extragenital screening is critical to the provision of comprehensive sexual health services for men who have sex with men.

mostly asymptomatic[illegible]
can leave infections unid[illegible]
transmission among MSM[illegible]
A 2003 study conduc[illegible]
NAATs were used to test MSM [illegible]
all 3 anatomical sites, found that [illegible]
(53%) and gonococcal (64%) infec[illegible]
MSM were screened only for urethr[illegible]

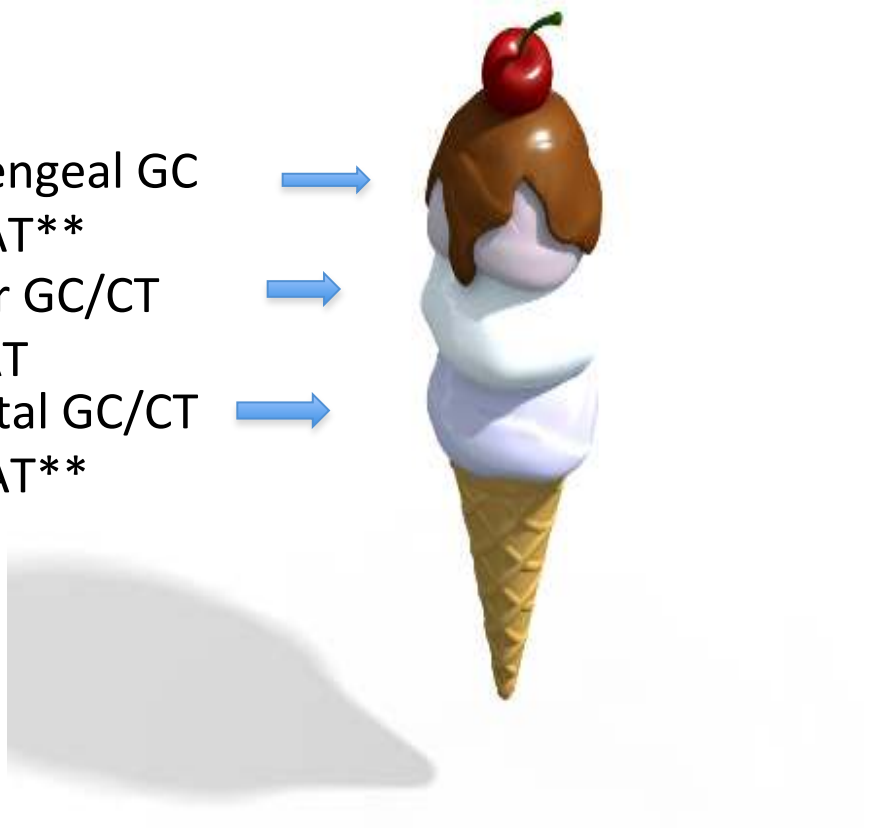
Nerelerden örnek alınacağını bilmek gerek

Screening only urine misses majority of STIs in MSM-



Riskli hastalarda her 3-6 ayda bir tarama önerilir

- Semptomlara bakmaksızın
- Temas bölgesine bakmaksızın
- Örneği hasta alabilir

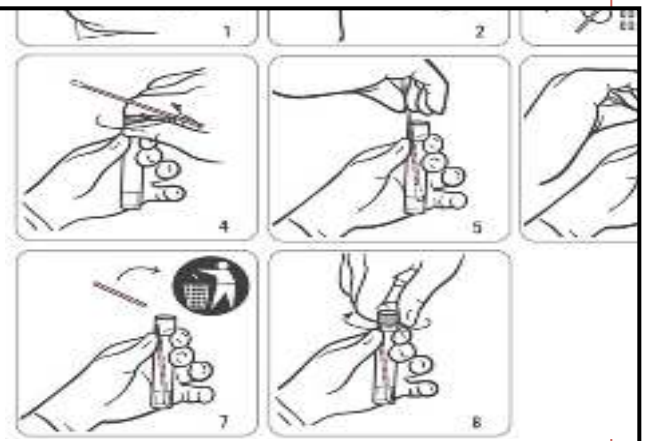


**Off-label use - not FDA-approved for testing at extragenital sites, but many reference labs have validated the assay for use

Tarama örnekleri

Genital Test

- Erkek
  - İdrar (ilk akım)= uretral
- Kadın
  - İdrar<< Vajinal, servikal

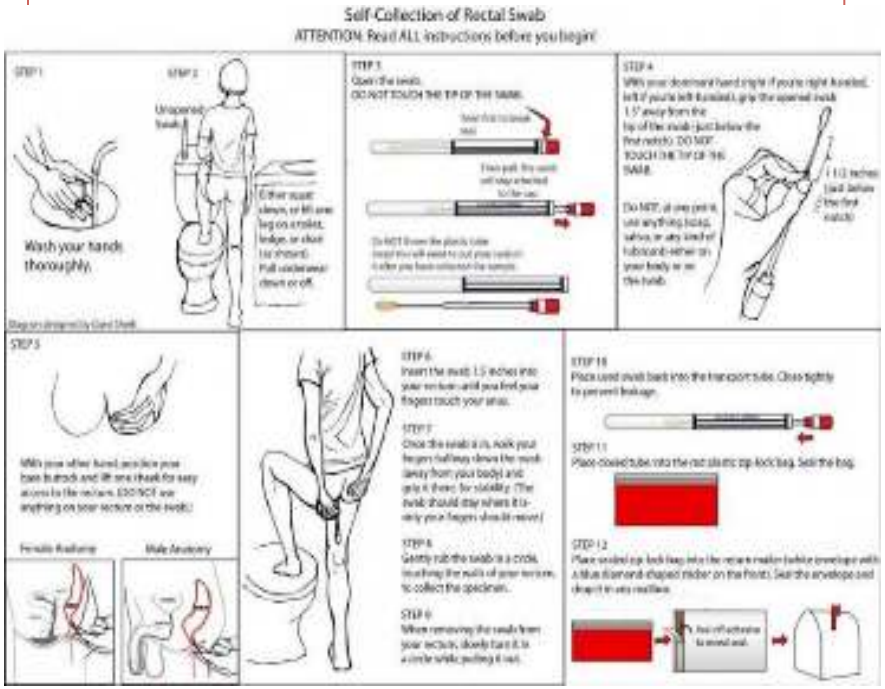


(Illustrations courtesy of Gen-Probe Incorporated, San Diego CA)

NC Sexually Transmitted Diseases Public Health Public Health Progra
Self-Collected Swabs
April 2011
Page 1 of 1

Ekstragenital

- Farengeal
- Rektal



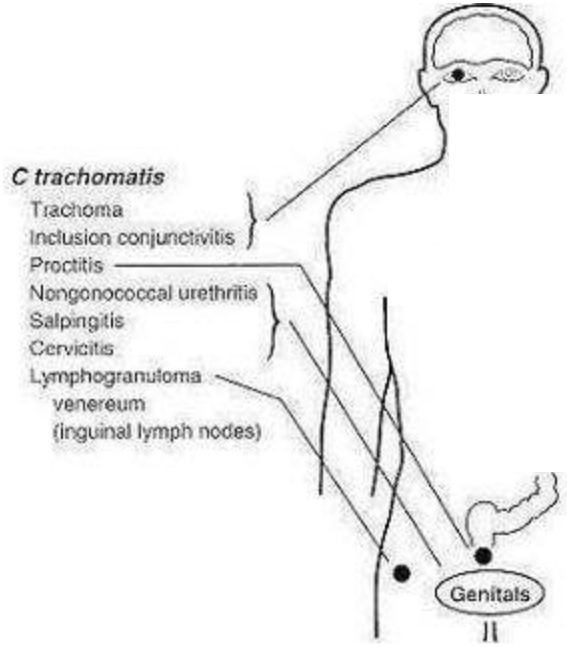
C. trachomatis enfeksiyonu

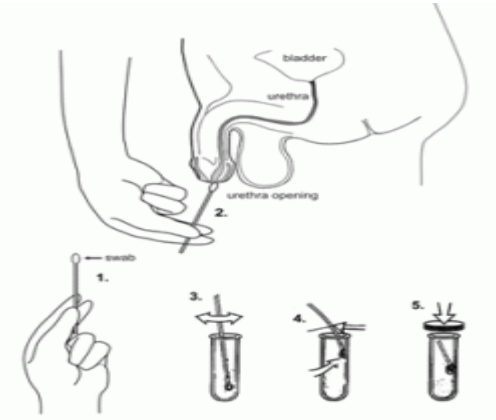
Asemptomatik enfeksiyon yaygın

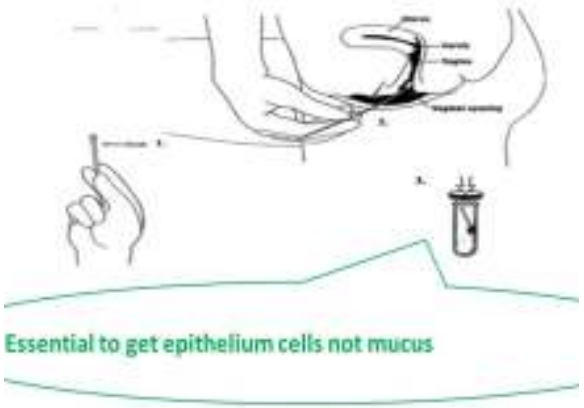
Kadınlarda PID, ektopik gebelik, infertilite

Tarama testlerinin amacı

- Tespit etmek
- Komplikasyonlardan korumak
- Kişiyi ve partnerlerini tedavi etmek







- **Erkeklerde**

  Uretral örnek

  İdrar (ilk idrar)

  NAAT

- **Kadınlarda**

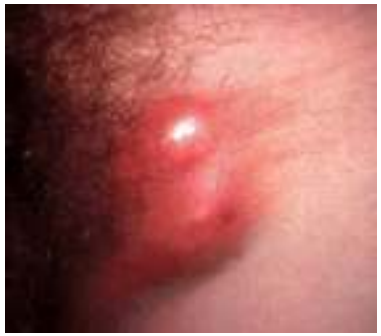
  İdrar (İlk idrar)

  Endoserviks/vajinal örnek

  NAAT

Reseptif anal veya oral teması olanlarda rektal ve orofarengeal örnek (NAAT, FDA onayı olmamasına rağmen duyarlılığı ve özgüllüğü yüksek)

LGV

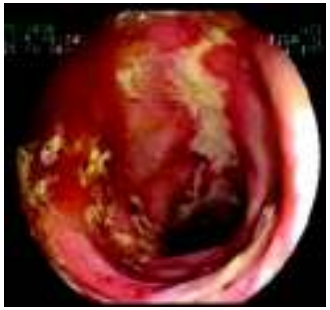


Etken *C. trachomatis* serovar L1, L2, L3

Heteroseksüellerde

- Unilateral inguinal ve/veya femoral LAP
- İnokulasyon yerinde kendini sınırlayan genital ülser veya papül

<u>MSM veya kadınlarda rektal temasta</u>



- İBH taklit eden proktokolit
- (Mukoid ve/veya hemorajik rektal akıntı, anal ağrı, konstipasyon, ateş, tenesmus)
- İnvazif, sistemik enfeksiyon
- Erken tedavi edilmezse proktokolite bağlı fistül, striktür
- Asemptomatik de olabilir

- Klinik şüphe, epidemiyolojik bilgi, inguinal LAP, genital/rektal ülser
- Genital lezyon, rektal, lenf nodu örneğinde kültür, NAAT

Tedavi

Hastanın tedavisi;

- Reproduktif komplikasyonlardan ve başka kişilere cinsel bulaştan
- Hamilelerin tedavisi yenidoğana bulaştan (konjonktivit, pnömoni)
- Partnerlerin tedavisi; reenfeksiyondan ve diğer partnerlerin enfekte olmasından korur

Rektal CT NAAT pozitif **asemptomati**k→Komplike olmayan CT

Recommended Regimens
Azithromycin 1 g orally in a single dose OR **Doxycycline** 100 mg orally twice a day for 7 days

Rektal CT NAAT pozitif- **proktit** → LGV gibi tedavi

Doksisiklin 100 mg po bid x 21 gün

Orofarengeal tarama rutin değil, ancak pozitif bulunursa genital bölgelere bulaş olabileceği için tedavi edilmeli

Partnerleri de değerlendirilmeli, test edilmelidir

Hastanın klamidya enf tanısı veya semptomlarının başlamasından 60 gün öncesinde cinsel teması olan partnerlerine tedavi

Gonokokal enfeksiyonlar

- **Erkeklerde** gonokokal üretral enfeksiyonlar **semptomatik**
- **Kadınlarda** ise komplikasyon gelişinceye kadar (PID, infertilite, ektopik gebelik) genellikle **asemptomatik**

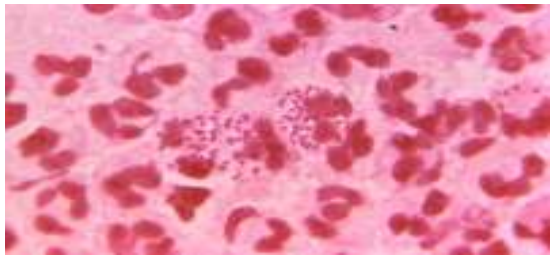
- Genitoüriner enfeksiyon tanısında kültür ve NAAT
- Kültür için:

  kadınlarda endoservikal

  erkeklerde üretral örnek
- NAAT için:

  endoservikal, vajinal, üretral, idrar örneği

- Semptomatik erkeklerde üretral akıntının Gram boyamasında PMNL ve intraselüler Gram negatif diplokokların görülmesi tanısaldır



- Asemptomatik erkeklerde Gram boyamada bakterinin görülmemesi enfeksiyonu dışlayamaz

- Endoservikal, farengeal ve rektal örneklerin Gram boyaması yetersizdir, önerilmez

- Bazı NAAT'lar komensal *Neisseria* türlerini tespit edebildiği için orofarengeal örneklerde spesifitesi düşük

- Kültür dışı testlerde antimikrobiyal duyarlılık yapılamaz

Günümüzde komplike olmayan **genital, rektal veya farengeal**

Recommended Regimen
Ceftriaxone 250 mg IM in a single dose PLUS **Azithromycin** 1g orally in a single dose

Farklı mekanizmalarla etkili iki antimikrobiyal, tedavinin etkinliğini ve sefalosporinlere direnç gelişimi ve yayılımını azaltmaktadır

C. trachomatis'e de etkin bir tedavidir

Sefalosporine ek olarak azitromisin doksisikline tercih edilir:

- Azitromisinin tek doz verilmesi
- Tetrasikline gonokok direnci prevalansının yüksek olması

Sefalosporin alerjisi durumunda

- Gemifloksasin 320 mg po tek doz + azitromisin 2gr po tek doz

- Gentamisin 240 mg IM tek doz + azitromisin 2 gr po tek doz

Farengeal gonokok enfeksiyonunun eradikasyonu zordur Hastanın oral seksüel teması varsa tedavi edilmelidir

Bulaşı engellemek için hastanın ve tüm partnerlerinin tedaviden sonra 7 gün cinsel temasta bulunmaması önerilir

Hastanın gonore tanısı veya semptomlarının başlamasından 60 gün öncesinde cinsel teması olan partnerleri değerlendirilmeli, test edilmeli ve tedavi verilmeli

Trikomoniyazis

Clin Infect Dis. 2002 May 15;34(10):1406-11. Epub 2002 Apr 22.

Prevalence, incidence, and persistence or recurrence of trichomoniasis among human immunodeficiency virus (HIV)-positive women and among HIV-negative women at high risk for HIV infection.

Cu-Uvin S[1], Ko H, Jamieson DJ, Hogan JW, Schuman P, Anderson J, Klein RS; HIV Epidemiology Research Study (HERS) Group.

⊕ Author information

Abstract

Trichomoniasis has been implicated in the acquisition and transmission of human immunodeficiency virus (HIV) infection. The prevalence, incidence, and persistence or recurrence of trichomoniasis were assessed among HIV-positive women and among HIV-negative women at high risk for HIV infection. A total of 871 HIV-seropositive women and 439 HIV-seronegative women enrolled in the HIV Epidemiology Study (HERS) were seen biannually. The prevalence of trichomoniasis was 9.4%-29.5% among HIV-seropositive women and

Sex Transm Infect. 2013 Sep;89(6):426-33. doi: 10.1136/sextrans-2012-051005. Epub 2013 Apr 20.

Trichomoniasis and HIV interactions: a review.

Kissinger P[1], Adamski A.

⊕ Author information

Abstract

OBJECTIVE: To discuss the epidemiology of Trichomonas vaginalis (TV) and HIV co-infections, the role of TV in acquisition and transmission of HIV, special treatment considerations for TV among women with HIV and the prevention of TV among HIV-infected persons.

DESIGN: Systematic review.

DATA SOURCE: Review of literature of EMBASE and PubMed databases from January 1990 to February 2013. Search keywords included TV, HIV co-infections, HIV acquisition, HIV transmission, HIV shedding, TV treatment, HIV and couples studies.

REVIEW METHOD: We included studies of any design that contained the selected search words and were published during the specified time frame. We then searched the reference lists of included papers for additional papers and included these when relevant.

RESULTS: There is strong evidence that TV increases both transmission and acquisition of HIV among women, and that successful treatment for TV can reduce HIV genital shedding. Single dose metronidazole (MTZ) should no longer be used for HIV+ women with TV given the high rates of asymptomatic bacterial vaginosis co-infections and other factors that may render MTZ less effective in HIV+ women. Prevention of TV among HIV+ persons is similar to among HIV, including promotion of condoms as well as regular screening and prompt treatment. There may be a role for expedited partner treatment for the prevention of repeat infections, but most repeat infections are clinical treatment failures. Diligence in screening and treating TV among both HIV- susceptible and HIV+

- *T. vaginalis* PID ile ilişkilidir
- HIV bulaşını 2-3 kat arttırır

J Infect Dis. 2007 Mar 1;195(5):698-702. Epub 2007 Jan 22.

Infection with Trichomonas vaginalis increases the risk of HIV-1 acquisition.

McClelland RS[1], Sangare L, Hassan WM, Lavreys L, Mandaliya K, Kiarie J, Ndinya-Achola J, Jaoko W, Baeten JM.

⊕ Author information

Abstract

We conducted a prospective study among women in Mombasa, Kenya, to determine whether Trichomonas vaginalis infection was associated with an increased risk of human immunodeficiency virus type 1 (HIV-1) infection. At monthly follow-up visits, laboratory screening for HIV-1

Sex Transm Dis. 2009 Jan;36(1):11-6. doi: 10.1097/OLQ.0b013e318186decf.

Trichomonas vaginalis treatment reduces vaginal HIV-1 shedding.

Kissinger P[1], Amedee A, Clark RA, Dumestre J, Theall KP, Myers L, Hagensee ME, Farley TA, Martin DH.

⊕ Author information

Abstract

BACKGROUND: Vaginal HIV-1 shedding has been associated with Trichomonas vaginalis (TV) infection and could play a role in HIV transmission. The purpose of the study was to examine if effective TV treatment reduces the presence of vaginal HIV-1 RNA.

METHODS: TV+ women attending an HIV outpatient clinic in New Orleans, LA, who resolved infection (n = 58) and TV-negative controls nterviewed at baseline, 1, and 3 RNA in the vaginal fluids was determin

RESULTS: : Most w , 46.0% had plasma HIV-1 RNA RT, and only 26.0% had detecta y treated for TV were less likely to s .34, 95% CI: 0.12-0.92, P = 0.03), wh

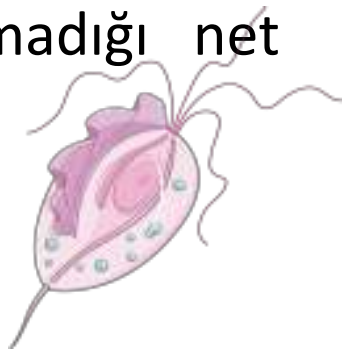
CONCLUSION: This sitive women may have an impact on ct and the effect on cervical shedding n

TV tedavisi
genital trakttaki HIVRNA salınımı
belirgin olarak azaltmaktadır

- Enfekte olanların %70-85'i asemptomatik ve tedavi edilmediği için yıllarca devam eder ve partnerlere bulaşa da devam eder

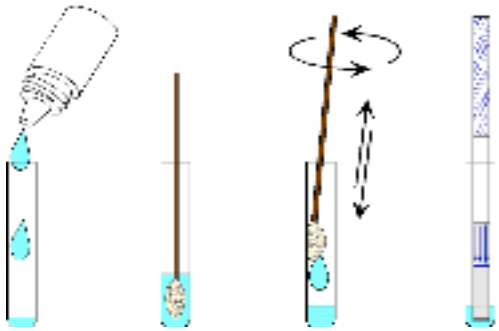
- Semptomatik olanlar:
- Kadın – vajinal akıntı (yeşil-sarı, kokulu, yoğun) vulvar iritasyon
- Erkek – üretrit, epididimit, prostatit

- Rektumun *T. vaginalis* için rezervuar olup olmadığı net değildir
- Rektal ve oral tarama önerilmemektedir



Tanı

- Hızlı antijen testi (OSOM)
- NAAT (mikroskopidenX3-5 sensitif)
  - APTIMA TMA *T. vaginalis* assay
  - FDA onaylı (vaginal, endoservikal, idrar)



Huppert CID 2007

Test	Sens	Spec
APTIMA TMA	98%	98%
OSOM	90%	100%
Kültür	83%	100%
Yaş preparat	56%	100%

Slide adapted from Marrazzo, IDSA 2011

Kür

- metronidazol ile %84–98
- tinidazol %92–100

J Acquir Immune Defic Syndr. 2010 Dec 15;55(5):565-71. doi: 10.1097/QAI.0b013e3181eda955.

A randomized treatment trial: single versus 7-day dose of metronidazole for the treatment of Trichomonas vaginalis among HIV-infected women.

Kissinger P[1], Mena L, Levison J, Clark RA, Gatski M, Henderson H, Schmidt N, Rosenthal SL, Myers L, Martin DH.

⊕ Author information

Abstract

OBJECTIVE: To determine if the metronidazole (MTZ) 2-gm single dose (recommended) is as effective as the 7-day 500 mg twice a d… …g HIV+ women.

METHODS: Phase I… …domized to treatment arm: MTZ… …e given 2-gm MTZ doses to deliver to… …visit occurring 6-12 days after treatmer… …nth visit. Repeat TV infection rates were…

RESULTS: Two hun… …92.2% African American). Treatm… …etroviral therapy status, site, and los… …s at TOC [8.5% (11 of 130) versus 16.8… …< 0.05)] and at 3 months [11.0% (8 of … …val = 0.21, 0.98; P = 0.03)] compared with the single-dose arm.

CONCLUSIONS: The 7-day MTZ dose was more effective than the single dose for the treatment of TV among HIV+ women.

Metronidazol
2X500 mg 7 gün
2 gr po tek doza göre daha efektif bulunmuştur

Klamidya, gonore ve *Trichomonas* tedavisinden 3 ay sonra tekrar test yapılmalıdır (Reenfeksiyon riski yüksek)

Ann Intern Med. 2006 Oct 17;145(8):564-72.

High incidence of new sexually transmitted infections in the year following a sexually transmitted infection: a case for rescreening.

Peterman TA[1], Tian LH, Metcalf CA, Satterwhite CL, Malotte CK, DeAugustine N, Paul SM, Cross H, Rietmeijer CA, Douglas JM Jr; RESPECT-2 Study Group.

⊕ Author information

Abstract

BACKGROUND: Studies show 11% to 15% of women treated for Chlamydia trachomatis are reinfected 3 to 4 months after treatment, suggesting the need for rescreening. There is little information on infections among men, infections with Neisseria gonorrhoeae or Trichomonas vaginalis, or long-term follow-up.

OBJECTIVE: To determine the incidence of new sexually transmitted infections during the year after a visit to a sexually transmitted disease (STD) clinic and associated risk factors.

DESIGN: Sec

SETTING:

PATIENT

MEASUR

trachoma

other inte

RESULTS

new infec

among 1

with C.

ny

more

ginalis);

N.

3 CYBE takip edilen klinik
C. trachomatis, N gonorrhea ve *T. vaginalis* (kadınlarda) tanısı ve tedavisi alan hastalar
3'er ay ara ile bir yıl boyunca takip edilmiş
1236 kadından %26'sında bir veya daha fazla yeni enf
1183 erkekten %15'inde bir veya daha fazla enf gelişmiş
Yeni enfeksiyonların %66'sı asemptomatik

Genital Herpes

Kronik, yaşam boyu süren viral enfeksiyon

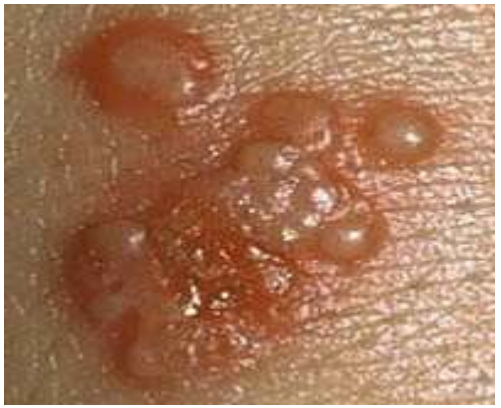
HSV-1, HSV-2

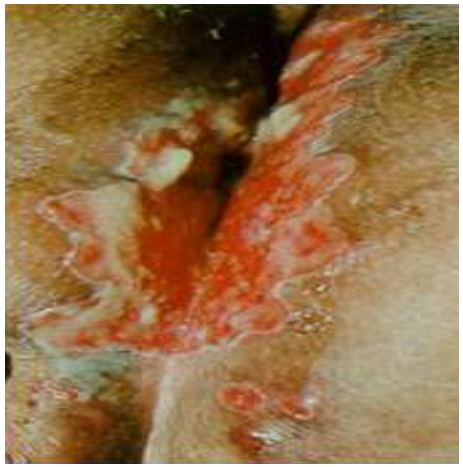
Tekrarlayan genital herpesin çoğunluğu HSV-2

Genç kadınlar ve MSM – HSV-1 sıklığı artmaktadır

Çoğu kişide tanımlanmamış enfeksiyon mevcut, aralıklı olarak virus salınımı olmaktadır

Çoğu durumundan haberdar olmayan, asemptomatik kişilerden bulaşmaktadır





- HIV-enfekte kişilerde
  - Lezyonlar daha uzun süreli, ağrılı, ciddi ve atipik
  - HSV salınımı artmıştır
  - ART ile semptomatik herpes sıklığı ve klinik bulguları azalır ancak subklinik seyirde azalma olmaz
  - ART başlandıktan sonra erken dönemde immün rekonstitüsyona bağlı genital herpesin klinik bulguları kötüleşebilir

    (CD4<250/mm^3 ve HSV-2 serolojisi pozitifse ART ile birlikte 3-6 ay supresif tedavi önerilebilir- DHHS)

Tanı

- Viral kültürün sensitivitesi (özellikle rekürren lezyonların varlığında ve iyileşmeye başlayan lezyonlarda) düşüktür
- NAAT
- Tipe özgü antikorlar enfeksiyonun ilk birkaç haftasında ortaya çıkar ve kalıcı olarak devam eder
- HSV serolojisi değerlendirilmesi önerilenler:
  - CYBE olanlarda
  - HIV enfekte bireylerde
  - MSM ve HIV temas riski yüksek olanlarda
- Genel populasyonda bakılması önerilmez

- HIV-enfekte kişilerde, oral antiviral ajanlarla, supresif veya epizodik tedavi HSV enfeksiyonunun klinik bulgularını azaltır

Kimlere supresif tedavi??

- Rekürrensler ağrılı ise
- Birkaç epizod/yıl oluyorsa

- Supresif tedavi HIV veya HSV-2 bulaşını azaltmaz

Recommended Regimens for Daily Suppressive Therapy in Persons with HIV
Acyclovir 400–800 mg orally twice to three times a day OR **Valacyclovir** 500 mg orally twice a day OR **Famciclovir** 500 mg orally twice a day

Recommended Regimens for Episodic Infection in Persons with HIV
Acyclovir 400 mg orally three times a day for 5–10 days OR **Valacyclovir** 1 g orally twice a day for 5–10 days OR **Famciclovir** 500 mg orally twice a day for 5–10 days

Tedavi tüm lezyonlar iyileşinceye kadar!

- Antiviral tedaviye rağmen lezyonlar düzelmiyor veya artıyorsa HSV direnci??

- IRIS'e dikkat!!

  - ülserin sayısında, ciddiyetinde artış

  - rekürrens sıklığında artış

- Asiklovir dirençli suşlar valasiklovire ve çoğunlukla famsiklovire de dirençli (Foskarnet ve sidofovir (IV), imiquimod ve sidofovir (topikal) kullanılabilir

Human Papilloma Virus

- Servikal, anal, vulvar, vajinal, penil, orofarengeal kanserlerle ilişkili
- Servikal HPV enfeksiyonunun büyük kısmı kendiliğinden geriler, latent kalır. Bir kısmında ise enfeksiyon devam eder
- En az 12 tipi onkojenik
- HPV 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59
- serviks ca'nın %50

  +%20

  +%19

HPV 6 ve 11 genital siğillerin %90'ının nedeni, onkojenik değil

Anal kanserlerin %90'ından HPV 16 ve 18 sorumlu

- Çoğunluğu asemptomatik

- Genital (kondiloma akuminatum)
- Anal
- Oral

siğiller

- Anogenital skuamoz hücreli ca
- Servikal adenokarsinom
- Orofarengeal kanserler

Recommendations for Cervical Cancer Screening for HIV-Infected Women

HIV-Infected Women Aged <30 Years:

- If younger than age 21, known to be HIV-infected or newly diagnosed with HIV, and sexually active, screen within 1 year of onset of sexual activity regardless of mode of HIV infection.
- HIV-infected women aged 21–29 should have a Pap test following initial diagnosis.
- Pap test should be done at baseline and every 12 months **(BII)**.
- Some experts recommend a Pap test at 6 months after the baseline test **(CIII)**
- If results of 3 consecutive Pap tests are normal, follow-up Pap tests can be performed every 3 years **(BII)**
- Co-testing (Pap test and HPV test) is not recommended for women younger than 30.

HIV-Infected Women Aged >30 Years

Pap Testing Only:

- Pap test should be done at baseline and every 12 months **(BII)**.
- Some experts recommend a Pap test at 6 months after the baseline test **(CIII)**.
- If results of 3 consecutive Pap tests are normal, follow-up Pap tests can be performed every 3 years **(BII)**.

Or:

Pap Test and HPV Co-Testing:

- Pap test and HPV co-testing should be done at baseline **(BII)**.
- If result of the Pap test is normal and HPV co-testing is negative, follow up Pap test and HPV co-testing can be performed every 3 years **(BII)**.
- If the result of the Pap test is normal but HPV co-testing is positive, follow up test with Pap test and HPV co-testing should be performed in one year.
- If the one year follow-up Pap test is abnormal or HPV co-testing is positive, referral to colposcopy is recommended.

AIDSinfo

STI screening and treatment

STI screening should be offered to all sexually active HIV-positive persons at the time of HIV diagnosis, annually thereafter or at any time STI symptoms are reported and during pregnancy. Diagnosis procedures should follow local or national guidelines. More comprehensive advice can be found at http://www.iusti.org/regions/Europe/euroguidelines.htm

The following STIs should be universally considered in HIV-positive persons and their sexual partner(s):

no longer necessary because of effectiveness of ART in avoiding HIV transmission at conception in HIV-positive male persons with undetectable HIV-VL.

Sexual dysfunction

Guidelines for treatment of sexual dysfunction in the general population are available for men but not women. Refer to specialist where appropriate. See Sexual Dysfunction and Treatment of Sexual Dysfunction in HIV-positive Men

	Therapy	Comment
Chlamydia infection	Consider doxycycline (100 mg bid po 7-10 days, contraindicated in pregnancy) or azithromycin (1 g po as a single dose) for urethritis and cervicitis. For *Lymphogranuloma venereum (LGV)* doxycycline (100 mg po bid for 21 days) or azithromycin (1 g po every week for 3 weeks). **Alternatives:** erythromycin (500 mg/6 h po[i]) or levofloxacin (500 mg/day) for 7 days (or 21 days in case of LGV)	• May cause therapy-resistant proctitis in HIV-positive MSM • Consider co-infections with *Neisseria gonorrhoeae*
Gonorrhoea	Ceftriaxone (500 mg im as a single dose) together with azithromycin (1 g po as a single dose).	• Can cause proctitis, prostatitis and epididymitis • In women often asymptomatic • Fluoroquinolone resistance is highly prevalent in all regions
HBV infection **HCV infection**	See table on HIV/HCV or HIV/HBV co-infections, pages 80–85	• Interruption of TDF, 3TC or FTC can lead to HBV reactivation • Clusters of acute HCV infection in HIV-positive MSM across Europe
HPV infection	There are several treatment modalities for the management of genital warts with no evidence to suggest one approach is better than another approach. Consider operative removal by laser surgery, infrared coagulation, cryotherapy, etc. Management of both pre-invasive cervical lesions as well as peri- and intra-anal lesions should follow local or national guidelines	• Infection is mostly asymptomatic; relapse of genital warts is frequent • Cervical PAP smear test recommended in all HIV-positive women • Anal HPV screening and cytology should be considered in all HIV-positive persons practising anal sex • Consider high resolution anoscopy in case of suspicious cytological findings (rectal palpation or external inspection is not sufficient)
HSV2 infection	Primary infection: aciclovir (400–800 mg po tid) or valaciclovir (500 mg po bid) for 5 days, see page 91	• Treatment of HSV2 alone does not prevent HIV-transmission and only modestly prevents HIV disease progression
Syphilis	Penicillin is the gold standard for the treatment of syphilis in both pregnant and non-pregnant individuals. **Primary/secondary syphilis:** benzathine penicillin G (2.4 million IU im as single dose). In early syphilis adjunctive treatment with prednisolone (20–60 mg daily for 3 days) prevents optic neuritis, uveitis and Jarisch–Herxheimer reaction. **Late latent syphilis and syphilis of unknown duration:** benzathine penicillin (2.4 million IU im weekly on days 1, 8 and 15); the alternative doxycycline (100 mg po bid for 2 weeks) is considered less effective. **Neurosyphilis:** penicillin G (6 x 3 - 4 million IU iv for at least 2 weeks). There is no evidence to give a general recommendation on prednisolone use in this condition.	• Expect atypical serology and clinical courses • Consider cerebrospinal fluid (CSF) testing in persons with neurological symptoms (evidence for intrathecally-produced specific antibodies, pleocytosis, etc.) • Successful therapy clears clinical symptoms and decreases VDRL test four-fold within 6-12 months

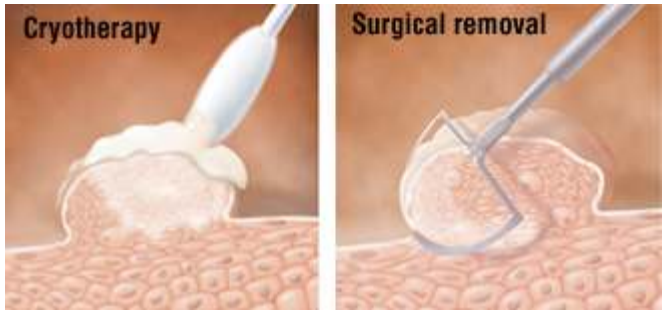
i Rarely used

Tedavi

Genital siğiller kendiliğinden gerileyebilir

Refrakter ve reküren lezyonlarda tedavi gerekebilir

- İmiquimod %5 krem
- Podofiloks %0.5 solusyon
- Sinekateşin (lokal)
- Kriyoterapi
- Cerrahi
- İntralezyoner IFN



Expert Rev Anti Infect Ther. 2005 Oct;3(5):825-31.

Syphilis and HIV: a dangerous duo.

Karumudi UR[1], Augenbraun M.

⊕ Author information

Abstract

HIV and syphilis affect similar patient groups and coinfection is common. All patients presenting with syphilis should be offered HIV testing and vice versa. Syphilis can enhance the transmission of HIV. Detection and treatment of syphilis can probably help to reduce HIV transmission. Syphilis may present with atypical features in the HIV-positive patient, for example, there is a higher rate of asymptomatic primary syphilis, and proportionately more HIV-positive patients present with secondary disease. Secondary infection may be more aggressive and there is an increased rate of early neurologic and ophthalmic involvement. Diagnosis is generally made with serology, but the clinician should be aware of the potential for false-negative serology in both primary and, less commonly, in secondary syphilis. All HIV-positive patients should be treated with a penicillin-based regimen, and alternative therapies should be used with caution. All HIV-positive patients should be considered for the evaluation of neurosyphilis. Relapse is a real concern and careful follow up is required. This review will explore the differences in clinical manifestations in HIV-coinfected individuals, and will discuss data to warrant different management in HIV-coinfected individuals.

HIV enfeksiyonunun seyrini etkileyebilir

Spirochaetaceae

Treponema pallidum

Enfekte kişilerden sağlam kişilerin cilt veya mukozalarından mikrolezyonlarla penetre olur

Esas bulaş yolu - sy lezyonu ile direkt (cinsel) temas
- transplasental
- enfekte doğum kanalından geçerken
- kan transfüzyonu

Korunmasız cinsel temas ile bulaş riski %30-60

Syphilis

The nationa…ched an historic low…most every year since t…le to an increase am… However, d…g both men and women…reported congenital s…–2016. MSM continued t…S&S syphilis case…of P&S syphilis in 2016 wer…rs, among men in the V…

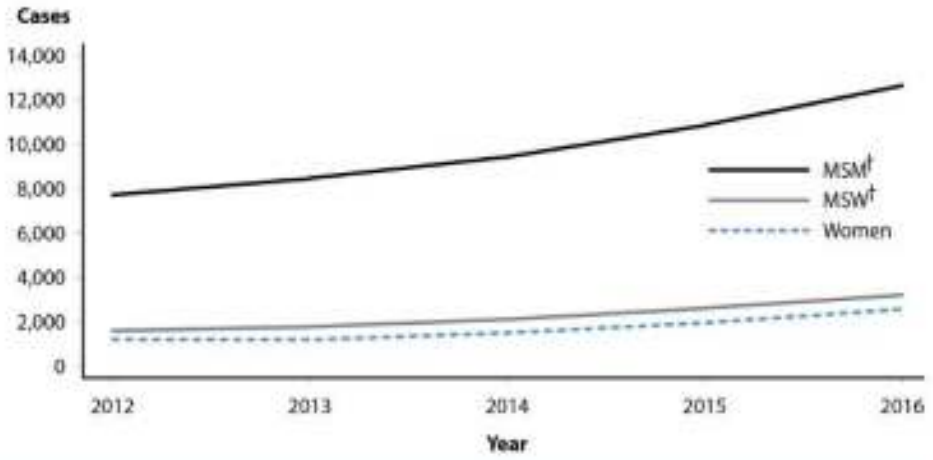


FIGURE 35. PRIMARY AND SECONDARY SYPHILIS — REPORTED CASES BY SEX AND SEXUAL BEHAVIOR, 37 STATES, 2012–2016

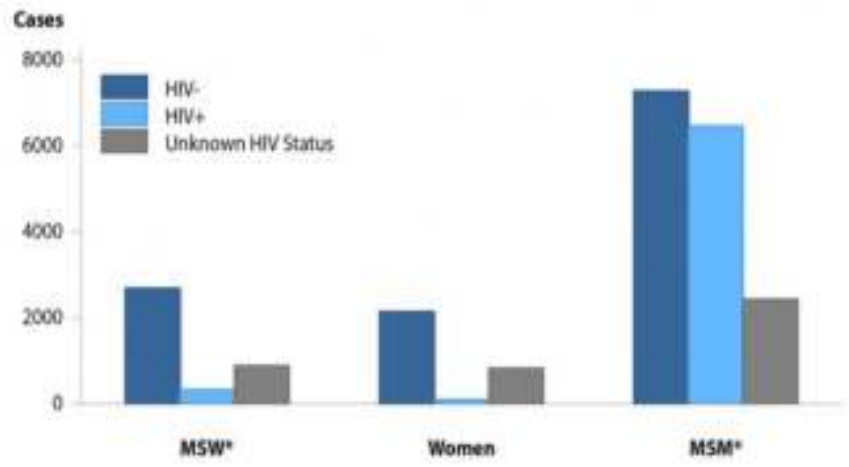


FIGURE 41. PRIMARY AND SECONDARY SYPHILIS — REPORTED CASES BY SEX, SEXUAL BEHAVIOR, AND HIV STATUS, 2016

Cent Eur J Public Health 2015; 23 (1): 65–68

SEROPREVALENCE AND RISK FACTORS OF SYPHILIS AMONG HIV/AIDS PATIENTS IN ISTANBUL, TURKEY

Özlem Altuntaş Aydın[1], Hayat Kumbasar Karaosmanoğlu[1], Murat Sayan[2], Emine Rahşan İnce[1], Özcan Nazlıcan[1]
[1]Department of Infectious Diseases and Clinical Microbiology, Haseki Training and Research Hospital, Istanbul, Turkey
[2]University of Kocaeli, Kocaeli, Turkey

SUMMARY

Objective: Data on syphilis seroprevalence among human immunodeficiency virus (HIV)/Acquired immunodeficiency syndrome (AIDS) patients are unavailable in Turkey although they have common transmission routes. Our study is oriented towards the assessment of the seroprevalence of syphilis and the related risk factors in the HIV/AIDS patients followed in our outpatient clinic.

Materials: Newly diagnosed HIV/AIDS cases (n = 308) who attended our outpatient clinic between January 2006 and April 2013 were included in the study. Patient characteristics, medical history, physical examination findings, $CD4^+$ T lymphocyte count, HIV RNA level, rapid plasma reagent (RPR) and *Treponema pallidum* hemagglutination (TPHA) test results were analyzed retrospectively. TPHA positivity was considered indicative of syphilis-causing *T. pallidum* exposure.

Results: HIV infection was transmitted through heterosexual (n = 176) or homosexual (n = 131) contact (266 male, 86.3%; age 38.3 ± 11.7 years; CD4+ T lymphocyte count, 330.6 ± 15.17/mm^3). 50.7% of the patients attained only primary education. Out of the 245 cases, who were asked about the number of their sexual partners, 40 patients (26 women) lived in a monogamous relationship. Condom usage was not practiced (57.2%) or was only occasional (34.4% – particularly with their legal spouses and for contraception). Physical exam revealed no signs of syphilis or other STIs. TPHA (+/– RPR) positivity was determined in 40 patients (12.9%), indicating *T. pallidum* exposure. All patients with positive syphilis serology were male (p = 0.0026). *T. pallidum* exposure was determined in 21.3% of homosexual and 6.8% of heterosexual cases (p = 0.0003).

Conclusion: Since sexual contact is the most common route of transmission for both infections, syphilis seroprevalence was relatively high in our HIV/AIDS patients. Male and homosexual HIV/AIDS patients constituted a group at the highest risk for syphilis.

HIV ⟷ Sifiliz

- Sifiliz, genital ülseratif lezyonlar nedeniyle, HIV enfeksiyonunun seksüel ve perinatal bulaşını kolaylaştırır
- Sifilizin HIV enfeksiyonu parametrelerine etkisi??

Arch Intern Med. 2012 Sep 10;172(16):1237-43.

Effect of early syphilis infection on plasma viral load and CD4 cell count in humar immunodeficiency virus-infected men: results from the FHDH-ANRS CO4 cohort.

Jarzebowski W[1], Caumes E, Dupin N, Farhi D, Lascaux AS, Piketty C, de Truchis P, Bouldouyre MA, Derradji O, Pacanowski J,

282 HIV/Sy erkek
1233 HIV erkek
Sifiliz enf süresince VL'de artış (ART ile VL<500 kp/mL olanlarda bile)
CD4 sayısında azalma (ort 28/mm^3)
Sy sonrası değerler tekrar bazal seviyelere ulaşmış

- VL'deki artış ile bulaşta artma riski olmasına rağmen bu durumun kliniğe yansıması henüz netlik kazanmamıştır

Int J STD AIDS. 2010 Jan;21(1):57-9. doi: 10.1258/ijsa.2009.009164. Epub 2009 Nov 20.

Syphilis co-infection does not affect HIV disease progression.

Weintrob AC[1], Gu W, Qin J, Robertson J, Ganeson A, Crum-Cianflone NF, Landrum ML, Wortmann GW, Follman D, Agan BK,

2239 HIV-enfekte olgu, 205'i HIV/Sy
Sy, CD4 ve VL'deki değişikliklere rağmen
HIV enfeksiyonunun progresyonunu etkilememektedir

HIV enfeksiyonunun sifiliz üzerine etkisi

Dan Med J. 2015 Dec;62(12):B5176.

Syphilis and HIV co-infection. Epidemiology, treatment and molecular typing of Treponema pallidum.

Salado-Rasmussen K[1].

Author information

Abstract

The studies included in this PhD thesis examined the interactions of syphilis, which is caused by Treponema pallidum, and HIV. Syphilis reemerged worldwide in the late 1990s and hereafter increasing rates of early syphilis were also reported in Denmark. The proportion of patients with concurrent HIV has been substantial, ranging from one third to almost two thirds of patients diagnosed with syphilis some years. Gi

İleri evre HIV enfekte olgularda sifilizin progresyonu hızlı

Yetersiz konak immün cevabı nedeniyle sekonder evre boyunca primer lezyondan spiroketlerin yayılımı, sekonder evrenin persistansı

- Atipik genital lezyonlar
- Nörolojik komplikasyonlar
- Tedavi başarısızlığı
- Re-enfeksiyon

} sıktır

ART'nin sifilize etkisi?

AIDS. 2008 Jun 19;22(10):1145-51. doi: 10.1097/QAD.0b013e32830184df.

Neurosyphilis in a clinical cohort of HIV-1-infected patients.

Ghanem KG[1], Moore RD, Rompalo AM, Erbelding EJ, Zenilman JM, Gebo KA.

⊕ Author information

231 HIV/Sy, sifilizden önce potent ART kullananlarda
Nörosifiliz gelişme olasılığını %65 azaltmaktadır

Clin Infect Dis. 2008 Jul 15;47(2):258-65. doi: 10.1086/589295.

Antiretroviral therapy is associated with reduced serologic failure rates for syphilis among HIV-infected patients.

Ghanem KG[1], Moore RD, Rompalo AM, Erbelding EJ, Zenilman JM, Gebo KA.

Prospektif, gözlemsel çalışma (1990-2006)
RPR'de 9-12 ayda 4 kattan düşük düzeyde azalma veya 4 kat artış olması
serolojik başarısızlık
ART kullanımında
serolojik başarısızlık **%60** azalmakta

Klinik bulgular

İnkübasyon 14-24 gün

Enfeksiyonların %40-50'si semptomsuz veya kendini sınırlayıcı

Erken sifiliz

- <u>Primer sifiliz:</u>

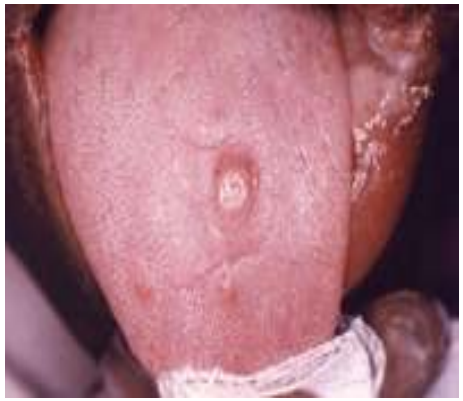
Enfeksiyondan 2-3 hf sonra, inokülasyon yerinde şankr

HIV enfekte olgularda multipl, atipik şankr!!

Primer lezyon olmayabilir!!

Şankr + tek/çift taraflı LAP (primer kompleks)

4-6 haftada tedavisiz, kendiliğinde rezolusyon

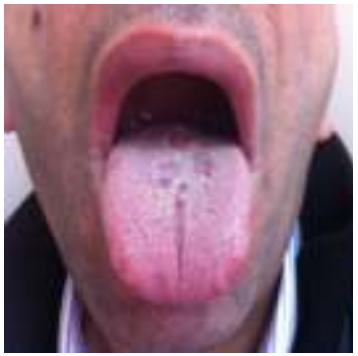


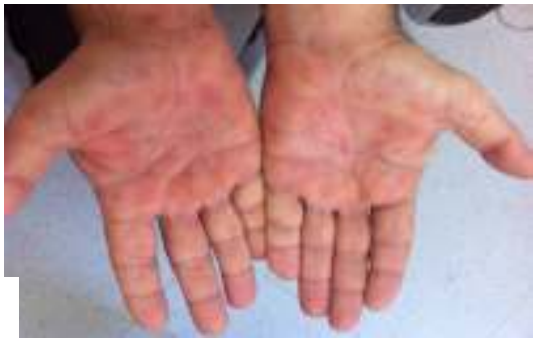
- Sekonder sifiliz:

  Primer evreden 2-8 hf sonra

  Hematojen yayılıma bağlı diffüz bulgular

  - dermatolojik: eksantem-condyloma lata
  - oküler: episiklerit, irit
  - nörolojik: menenjit (gece baş ağrısı)

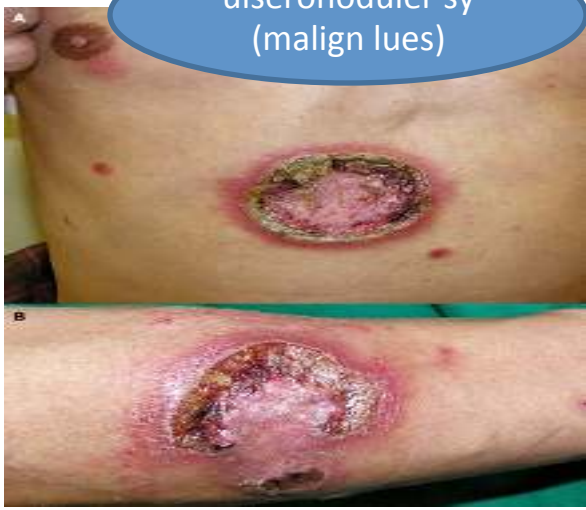




Sex Transm Dis. 2001 Mar;28(3):158-65.

Clinical manifestations of early syphilis by HIV status and gender: results of the syphilis and HIV study.

HIV enfekte olgularda
erken evrede klinik bulgular üst üste binmektedir



nadiren; artrit, hepatit, nefrotik send)

Latent sifiliz:

Enfeksiyon immün sistem ile kontrol altına alınmıştır

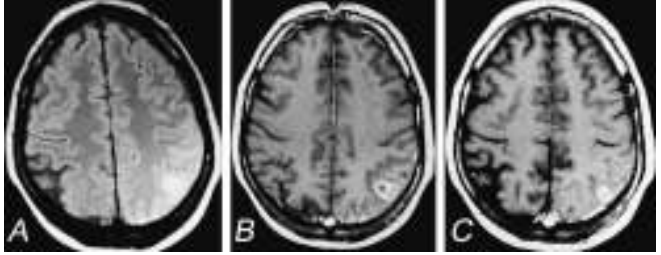
Semptom yok, serolojik bulgular mevcut

- Erken latent (enfeksiyondan sonraki 12 ay)
- Geç latent (12 aydan sonra)

Genelde ayırt edilemez, geç latent olarak kabul edilmeli

Bulaş riski en fazla erken evrede (özellikle primer lezyon ile)

Geç latent dönemde ve tersiyer sifilizde non-infeksiyöz



Geç (tersiyer) sifiliz

Gom: Az miktardaki spirokete karşı granulomatöz enflamatuar cevap. Her organı etkileyebilen yavaş progresif hastalık

Enfeksiyonun başlangıcından 4-10 yıl sonra gelişir

HIV/Sy olgularında daha kısa zamanda (aylar) gelişebilir

Kardiyovasküler Sy: Aortun vasa vasorumunda endarteritis obliterans. HIV/Sy'de daha hızlı gelişiyor. Asendan aort tutulduğunda AY, koroner ostial stenoz. Aort anevrizması, aortit

Meningovasküler sifiliz: Meningeal damar yapılarının obliteratif endarteriti. Arteriyel tromboz, SSS'nde iskemik nekroz (genç hastalarda inme)

Sex Transm Infect. 2005 Aug;81(4):361.

Cardiovascular syphilis in HIV infection: a case-control study at the Institute of Sexually Transmitted Diseases, Chennai, India.

HIV enfekte olgularda ort **40** ay
HIV (-) olgularda ort **102** ay

HIV enfekte olgularda
erken evrede
nörolojik tutulum
daha fazla

Uveit, menenjit daha sık

Nörosifiliz: Herhangi bir evrede, farklı kliniklerle (kranial sinir disfonksiyonu, menenjit, inme, vb) ortaya çıkabilir

Sex Transm Dis. 2008 May;35(5):425-9. doi: 10.1097/OLQ.0b013e3181623853.

Neurosyphilis in HIV-infected patients: clinical manifestations, serum venereal disease research laboratory titers, and associated factors to symptomatic neurosyphilis.

Poliseli R[1], Vidal JE, Penalva De Oliveira AC, Hernandez AV.

AIDS. 2008 Jun 19;22(10):1145-51. doi: 10.1097/QAD.0b013e32830184df.

Neurosyphilis in a clinical cohort of HIV-1-infected patients.

Ghanem KG[1], Moore RD, Rompalo AM, Erbelding EJ, Zenilman JM, Gebo KA.

Nörosifiliz risk faktörleri

CD4<350/mm^3

RPR >1/128

Erkek cinsiyet

Nörosifiliz; nörolojik, oküler, otik bulgularla, bazen de asemptomatik olabilir

J Infect Dis. 1998 Apr;177(4):931-40.

Neurosyphilis during the AIDS epidemic, San Francisco, 1985-1992.

Flood JM[1], Weinstock HS, Guroy ME, Bayne L, Simon RP, Bolan G.

⊕ Author information

Abstract

To investigate the epidemiology and clinical spectrum of neurosyphilis in a population with high rates of coexisting syphilis and human immunodeficiency virus (HIV) infection, a retrospective analysis of cases in all San Francisco hospitals from 1985 to 1992 was conducted. Neurosyphilis was defined by a newly reactive cerebrospinal fluid VDRL; 117 patients with neurosyphilis were identified. The median age was 39 years, 91% were male, 74 (63%) were white, and 75 (64%) were HIV-infected. Thirty-eight (33%) presented with an early symptomatic neurosyphilis syndrome. Six (5%) had late neurosyphilis. Thirty-eight (32%) patients were asymptomatic and 35 (30%) had findings attributable to coexisting neurologic diseases. Patients demonstrated high serum

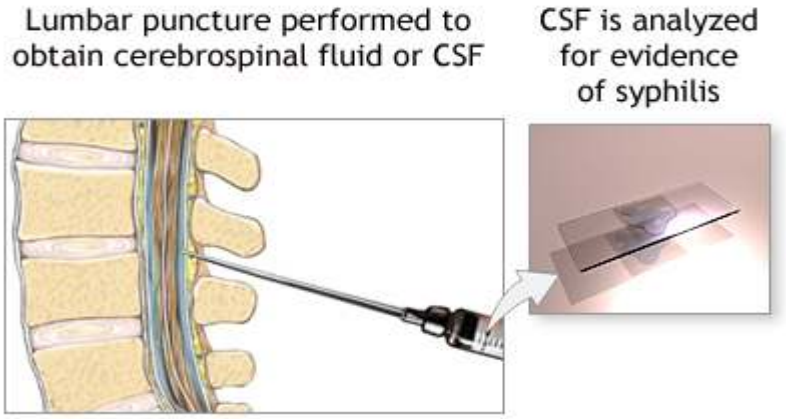
Kimler nörosifiliz açısından değerlendirilmeli?

- Sifiliz tanısı almış, nörolojik, oküler, otik tutulum varsa
- Tedaviye klinik veya serolojik yanıt alınmıyorsa

(RPR'de azalma 12 ayda X4'den az veya iki RPR arasında X4 artış)

CDC 2015 önerisi : sadece nörolojik semptomlar varsa !!

MMWR Sexually Transmitted Diseases Treatment Guidelines, 2015



- BOS'da VDRL – nörosifiliz için çok spesifik

  (BOS kan ile kontamine olmamalı)

  BOS VDRL'nin negatif olması sifilizi ekarte ettirmez

- HIV/Sy olgularında BOS hücre sayısı > 20/mm^3

  (HIV enfekte olmayanlarda >5/mm^3)

- BOS FTA-ABS, negatif olması nörosifilizi ekarte ettirir

Tanı

- Karanlık saha mikroskopi, direkt fluoresan antikor
- Nontreponemal testler(VDRL, RPR)- kantitatif raporlanmalı
  Ab titresi hastalık aktivitesiyle korele

HIV enfekte olgularda
tarama testine güvenilmez
tekrarlanmalı

J Am Acad Dermatol. 1991 Mar;24(3):506-8.

Seronegative secondary syphilis in a patient with AIDS: identification of Treponema pallidum in biopsy specimen.

Tikjøb G[1], Russel M, Petersen CS, Gerstoft J, Kobayasi T.

- Uygunsuz Ab üretimi
- Yüksek IgG nedeniyle IgM üretiminin supresyonu
- Prozon (öz. sekonder Sy)

Clin Infect Dis. 1994 Dec;19(6):1040-4.

Biological false-positive syphilis test results for women infected with human immunodeficiency virus.

Augenbraun MH[1], DeHovitz JA, Feldman J, Clarke L, Landesman S, Minkoff HM.

- B lenfositlerin spesifik olmayan aktivasyonu
- Tedavisiz/iyi tedavi almış HIV-enfekte olgularda IgM yıllarca reaktif kalabilir
- Başarılı tedavi ile VDRL titresinde 3 ay içerisinde en az 2 kat azalma izlenir. Bazı hastalarda düşük titreler yıllarca kalabilir (serolojik skar)
- Daha önce düşen titrede X2 artış: reenfeksiyon, reaktivasyon } ayırt edilemez nörosifiliz? LP

- Treponemal testler : *T. pallidum'*a spesifik antikor araştırılmaktadır (TPHA, TPPA, EIA, FTA-ABS)

- Reaktif treponemal testler genelde ömür boyu pozitif kalır

(%15-25 olguda erken dönemde tedavi ile 2-3 yılda negatifleşebilir)

- Titreleri hastalık aktivitesiyle korele değil
- Hastalığın takibinde kullanılmazlar

Tedavi

- Yavaş çoğalan bir etken olduğu için (jenerasyon periyodu 30-33 h) uzun etki süreli antimikrobiyal tedavi gerekli
- Tedaviye başlanacak gün bazal VDRL titresi bakılmalı
- Tüm evrelerde **ilk tercih penisilin**
- Penisiline direnç henüz gösterilmemiştir
- Penisilin dozu, formulasyonu, süresi sifiliz için korumalı alanlar olan göz, SSS tutulumu olup olmadığına bağlı
- IM Benzatin penisilin korumalı alanlar dışındaki dokularda uygun düzeyde ve sürede etki gösterir
- Göz, SSS tutulumunda IV penisilin G

Syphilis	Penicillin is the gold standard for the treatment of syphilis in both pregnant and non-pregnant individuals.	• Expect atypical serology and clinical courses • Consider cerebrospinal fluid (CSF) testing in persons with neurological symptoms (evidence for intrathecally-produced specific antibodies, pleocytosis, etc.) • Successful therapy clears clinical symptoms and decreases VDRL test four-fold within 6-12 months

Hastalığın her döneminde
nörosifiliz gelişebilir
5X5 MU veya 6X4 MU pen G IV
10-21 gün

Nörosifilizde
geç evredeki olgularda
IV tedavi tamamlandıktan sonra
1 doz benzatin penisilin IM önerilir

Nörosifilizin takibinde;

- Efektif tedavinin en iyi göstergesi BOS pleositozunun gerilemesi (6 ayda bir LP)
- BOS pleositoz düzelmezse ; BOS protein veya BOS VDRL takibi
  Bu parametreler 2 yılda düzelmezse tedavi tekrarı önerilir

Clin Infect Dis. 2004 Apr 1;38(7):1001-6. Epub 2004 Mar 16.

Normalization of cerebrospinal fluid abnormalities after neurosyphilis therapy: does HIV status matter?

Marra CM[1], Maxwell CL, Tantalo L, Eaton M, Rompalo AM, Raines C, Stoner BP, Corbett JJ, Augenbraun M, Zajackowski M, Kee R, Lukehart SA.

CD4 <200/mm^3 olanlarda BOS –VDRL normalleşmesi **X3.7 daha az**

RPR reactivity were more likely to normalize but CSF-VDRL reactivity was less likely to normalize with higher baseline values. Future studies should address whether more intensive therapy for neurosyphilis is warranted in HIV-infected individuals.

Penisilin alerjisi varsa

- Desensitizasyon (gebelik, nörosifiliz,kardiyovasküler tutulumlar, tedavi başarısızlığı olan durumlar)
- Alternatif ajanlar

Clinical manifestations and treatment of syphilis in nonpregnant adults

	Clinical manifestations*	Treatment¶
Early syphilis	**Primary syphilis:** Typically consists of … inoculation, accom… **Secondary syphi…** A systemic illness … involving the palm… such as pharyngiti… alopecia. **Early latent:** Refers to the perio… *pallidum* as demonstrated by serologic testing, but has no symptoms. Early latent syphilis occurs within the first year of initial infection.	**Preferred:** ▪ Penicillin G benzathine 2.4 million units IM once **Alternatives (choose one)◇:** ▪ Doxycycline 100 mg orally twice daily for 14 days ▪ Ceftriaxone 1 to 2 g daily IM or IV for 10 to 14 days ▪ … ▪ …
L…	**Tertiary syphilis:** Patients with late syphilis who have symptomatic manifestations involving the cardiovascular system or gummatous disease (granulomatous disease of the skin and subcutaneous tissues, bones, or viscera). **Late latent syphilis:** The period when a patient is infected with *T. pallidum* as demonstrated by serologic testing, but has no symptoms. Late latent syphilis by definition occurs more than one year after initial infection. If the timing of an infection is not known, late latent syphilis is presumed.	**Preferred:** ▪ Penicillin G benzathine 2.4 million units IM once weekly for three weeks **Alternatives (choose one):** ▪ Doxycycline 100 mg orally twice daily for four weeks ▪ Ceftriaxone 2 g daily IM or IV for 10 to 14 days
Neurosyphilis	**Neurosyphilis:** Can occur at any time during the course of infection. **Early neurosyphilis:** Patients with early neurosyphilis may have asymptomatic meningitis; symptomatic meningitis; or less commonly meningovascular disease (ie, meningitis and stroke). Vision or hearing loss with or without concomitant meningitis may also be present, and ocular/otologic syphilis is treated as neurosyphilis. **Late neurosyphilis:**	**Preferred:** ▪ Aqueous penicillin G 3 to 4 million units IV every four hours (or 18 to 24 million units continuous IV infusion) for 10 to 14 days§ ▪ Penicillin G procaine 2.4 million units IM daily **plus** probenecid 500 mg orally four times daily, both for 10 to 14 days ▪ If possible, patients allergic to penicillin should be desensitized and treated with IV penicillin **Alternatives¥:** ▪ Ceftriaxone 2 g IV daily for 10 to 14 days

Seftriakson optimum doz ve süre net değil

tek doz 2 gr azitromisin
Direnc dikkat !
HIV(+), MSM, gebelerde kullanılmamalı

nörosifiliz araştırılmalı

Alerji varsa desensitizasyon

Tedavinin ilk 24 saatinde akut , kendini sınırlayan ateş reaksiyonu

Jarisch-Herxheimer reaksiyonu

Hipotansiyon, döküntünün artması, miyalji, nöbet vb bulgular

Spiroketal antijenlerin, sitokinlerin hızlı serbestleşmesine bağlı

En sık erken sifilizde, %10-35 olguda

Hastalar bilgilendirilmeli

Genelde 12-24 saatte geriler

Antipiretikler kullanılabilir

Tedaviye beklenen yanıt alınmadıysa

(VDRL/RPR titresinde X4 azalma olmaması veya azalma sonrası X4 artış)

- Reenfeksiyon (yeni temas öyküsü, şankr, döküntü)
- Yavaş yanıt
- Tedavi yetersizliği (Henüz penisilin direnci yok)

  - tedavi uyumsuzluğu

  - alternatif ajanlarla tedavi
- İmmunsupresyon
- Nörosifiliz

CYBE’den korunma

Yargılamadan

Empati yaparak

Hastanın içinden geldiği toplumun kültürü dikkate alınarak

Dil

Cins/cinsel yönelim

Yaş

Eğitim düzeyi dikkate alınarak ilk vizitte bilgilendirilmeli

(CYBE tarama ve korunma)

CYBE'den korunma

Aşılama

- HAV
- HBV
- HPV

Preventing First Episode of HPV Infection

Indications for HPV Vaccination:

- HIV-infected; aged 9–26 years **(BIII)**

Note: Please refer to Pediatric OI guidelines for vaccination of boys and girls younger than age 13.

Vaccination Schedules

For Women:

- HPV recombinant vaccine 9 valent (Types 6, 11, 16, 18, 31, 33, 45, 52, 58) 0.5 mL IM at 0, 1–2, and 6 months **(BIII)**, *or*
- HPV recombinant vaccine quadrivalent (Types 6, 11, 16, 18) 0.5 mL IM at 0, 1–2, and 6 months **(BIII)**, *or*
- HPV recombinant vaccine bivalent (Types 16, 18) 0.5 mL IM at 0, 1–2, and 6 months **(BIII)**

For Men:

- HPV recombinant vaccine 9 valent (Types 6, 11, 16, 18, 31, 33, 45, 52, 58) 0.5 mL IM at 0, 1–2, and 6 months **(BIII)**, *or*
- HPV recombinant vaccine quadrivalent (Types 6, 11, 16, 18) 0.5 mL IM at 0, 1–2, and 6 months **(BIII)**

CYBE'den korunma

- Erkek kondomu kullanımı

  Öz. serodiskordan çiftlerde önemli

  Klamidya, gonore ve trikomoniyazdan korunmada etkin

Sex Transm Infect. 2012 Nov;88(7):484-9. doi: 10.1136/sextrans-2012-050618. Epub 2012 Sep 21.

Condom effectiveness against non-viral sexually transmitted infections: a prospective study using electronic daily diaries.

Crosby RA[1], Charnigo RA, Weathers C, Caliendo AM, Shrier LA.

Author information

Abstract

OBJECTIVES: To prospectively evaluate the protective value of consistent and correct use of latex condoms against the acquisition of Chlamydia trachomatis, Neisseria gonorrhoeae and Trichomonas vaginalis.

METHODS: Patients (N=929) attending clinics that treat sexually transmitted infections (STIs) were prospectively followed for up to 6 months. Urine STI nucleic acid amplification testing was performed at baseline, 3 months and 6 months. Participants were instructed to respond to daily prompts from a handheld device by completing a report for each penile-vaginal sexual intercourse event. Generalised estimating equation models examined associations of consistent as well as consistent and correct condom use with STI incidence over 3-month intervals.

RESULTS: Consistent condom use was not significantly associated with STI incidence (Estimated OR (EOR)=0.75; 95% CI (CI) 0.43 to 1.30; p=0.31). However, individuals who used condoms both correctly and consistently were estimated to have 59% lower odds of acquiring an STI (EOR=0.41; 95% CI 0.19 to 0.90; p=.026), compared to those who did not.

CONCLUSIONS: The correct as well as the consistent use of condoms greatly reduces the odds of non-viral STI acquisition.

HPV, genital herpes, HBV, sifilizde enfekte olan bölgeleri veya temas olasılığı olan bölgeleri kapattığında bulaş riskini azaltmaktadır[1,2]

1. *Koss CA, et al. Sex Transm Dis 2009;36:401-5*
2. *Martin ET, et al. Arch Intern Med 2009; 169:1233-40*

- Kondomların CYBE'den korumada yetersiz olduğu durumlar hasarlanmasından çok uygunsuz kullanım ile ilişkili

- Lateks alerjisi olan kişilerin kullandığı "natural skin" olarak adlandırılan kondomlar koyun çekumundan üretilmiştir ve porları 1500 nm

- Bu porlar sperm geçişini engeller ancak HIV'den 10, HBV'den 25 kat daha geniştirler, CYBE'den korunmada önerilmezler

Published in final edited form as:
JAMA. 2011 October 5; 306(13): 1479–1480. doi:10.1001/jama.2011.1431.

The Medical Benefits of Male Circumcision

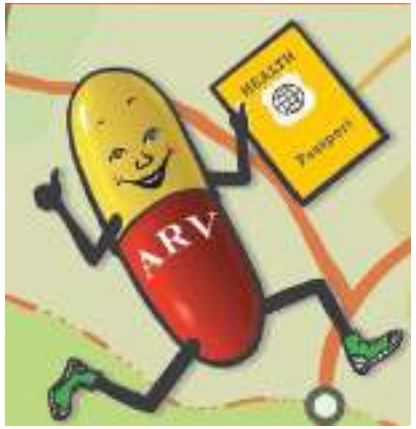
Aaron A. R. Tobian, MD, PhD and **Ronald H. Gray, MD, MSc**
Department of Pathology, School of Medicine (Dr Tobian) and Department of Epidemiology, Bloomberg School of Public Health (Drs Tobian and Gray), Johns Hopkins University, Baltimore, Maryland.

With 2 new states recently joining 16 others in eliminating Medicaid insurance for male circumcision, possible ballot initiatives to ban male circumcision, and the long-awaited American Academy of Pediatrics male circumcision policy statement, there is a need to evaluate the medical risks and benefits of male circumcision, particularly in light of recent medical evidence.

Three randomized … circumcision decreases human immunode… 1% to 60%,[1] and the long-term follow-up of … rotective efficacy of male circumcision incr… are consistent with a large number of observ… tes that found male circumcision redu… here is substantial evidence that removal of th… al HIV acquisition. However, the effe… uisition among men who have sex with me… insertional but not against receptive anal inte… ual intercourse may have limited protection …

HPV ve genital herpes'e karşı koruyucu

In addition to HIV, male circumcision has been shown to reduce the risk of other heterosexually acquired sexually transmitted infections (STIs). Two trials demonstrated that male circumcision reduces the risk of acquiring genital herpes by 28% to 34%, and the risk of developing genital ulceration by 47%.[1] Additionally, the trials found that male circumcision reduces the risk of oncogenic high-risk human papillomavirus (HR-HPV) by 32% to 35%.[1] While some consider male circumcision to be primarily a male issue, one trial also reported derivative benefits for female partners of circumcised men; the risk of HR-HPV for female partners was reduced by 28%, the risk of bacterial vaginosis was reduced by 40%, and the risk of trichomoniasis was reduced by 48%.[1,2] It should be noted that no large-scale randomized controlled trial has assessed the benefit of neonatal male circumcision throughout several decades, which is when many of the potential health benefits would be realized. Such a trial is probably not feasible. However, observational data of men predominantly circumcised during childhood support the findings of the 3 randomized trials conducted in Africa[1] and the long-term medical benefits of male circumcision.



- ART kullanımı

  HPTN 052 – HIV bulaş riski %96 azalıyor

- Bir CYBE tedavisi diğerinin bulaşını azaltır

- PrEP ile kondom uyumunda azalma ve CYBE riskinde artış!

CDC STD Treatment Guidelines
Apple ve Android

Ücretsiz

Önemli !!

1. HIV-enfekte kişiler CYBE yönünden değerlendirilmeli
2. MSM ve yüksek riskli heteroseksüellerin ekstragenital bölge değerlendirmesi de yapılmalı
3. Hastaların partnerleri de mutlaka değerlendirilmeli
4. Gonorede dual tedavi verilmeli
5. Bakteriyel CYBE 3-4 ay sonra kontrol edilmeli
6. PrEP kullanımı CYBE sıklığını arttırabilir (daha sık tarama)
7. Kondom kullanımının önemi vurgulanmalı
8. Teknolojiden faydalanılmalı – akıllı (?) telefonlar -


I can't
seem
to
stop