HIV İLE ENFEKTE BİREYLERDE AŞILAMA

DR. BEHİCE KURTARAN
Ç.Ü.T.F. ENFEKSİYON HASTALIKLARI VE KLİNİK MİKROBİYOLOJİ AD

- 1997 yılında 20 yaşında olan
  - HIV ile enfekte bireyde yaşam beklentisi 19,1 yıl
  - HIV ile enfekte olmayan da ise 63,4 yıl
- 2011 `de ise
- ART başlanan, CD4 >500 hücre/µL, HIV enfekte kişilerde beklenen yaşam süresi 54,5

Beklenen yaşam süresi uzuyor….

JL Marcus et al. JAIDS 2016

- Ülkemizde 1985 yılından 30 Kasım 2020 tarihine kadar doğrulama testi pozitif tespit edilerek bildirimi yapılan 25,809 HIV (+) birey
- Son iki yılda %600'den yüksek oranda artış

TÜRKİYE'DE DURUM

Ülkemizde Durum…

**Prevalans düşük (<%1) olmasına karşın;
insidans yıllar içinde artmakta**

01 Ocak 1985 – 31 Ocak 2019

Dr. Meliha Sönmezer'den

THSK Bulaşıcı Hastalıklar Daire Başkanlığı Cinsel Yolla Bulaşan Enfeksiyonlar Birimi verileri

HIV POZİTİF HASTALARDA AŞI İLE KORUNULABİLEN HASTALIKLAR İÇİN ARTMIŞ RİSK VAR MI?

HIV POZİTİF HASTALARDA AŞI İLE KORUNULABİLEN HASTALIKLAR İÇİN ARTMIŞ RİSK VAR MI?

ARTMIŞ RİSK

- İnvaziv pnömokok enfeksiyonları
- HBV'de siroza gidiş ve HCC
- Ağır influenza olguları
- HPV bulaşı
- Ölümcül kızamık olguları

AIDSinfo

A Service of the U.S. Department of Health and Human Services

Recommended Immunizations for HIV Positive Adults

Immunization Name	Associated Disease	Dosage	Comments and Warnings
Recommended for All HIV Positive Adults			
Hepatitis B virus (HBV)	Hepatitis B	3 shots over a 6-month period	Recommended unless there is evidence of immunity or active hepatitis. Blood test to check for HBV antibody levels should be done after completion of immunization series. Additional shots may be necessary if antibody levels are too low.
Influenza	Flu	1 shot	Must be given every year. Only injectable flu vaccine should be given to those who are HIV positive. The nasal spray vaccine (FluMist/LAIV) should not be used in this population.
Polysaccharide pneumococcal	Pneumonia	1 or 2 shots	Should be given soon after HIV diagnosis, unless vaccinated within the previous 5 years. If CD4 count is < 200 cells/mm^3 when the vaccine is given, immunization should be repeated when CD4 count is ≥ 200 cells/mm^3. Repeat one time after 5 years.
Tetanus and Diphtheria Toxoid (Td)	1. Lockjaw 2. Diphtheria	1 shot	Repeat every 10 years.
Tetanus, Diphtheria, and Pertussis (Tdap)	1. Lockjaw 2. Diphtheria 3. Pertussis	1 shot	Recommended for adults 64 years of age or younger and should be given in place of next Td booster. Can be given as soon as 2 years after last Td for persons in close contact with babies under 12 months and health care workers.

Vaccine Information for Adults

Adult Vaccination Home
Reasons to Vaccinate
Recommended Vaccines for Adults
Adult Vaccination Records
Finding and Paying for Vaccines
Vaccine-Preventable Adult Diseases
Resources

Related Links
Recommended Immunizations for Adults [2 pages]
Vaccines: The Basics
Vaccine Information Statements
ACIP Vaccination Recommendations
Adult Vaccination Resources for Healthcare Professionals

Vaccines Home > Adult Vaccination Home > Recommended Vaccines for Adults

Print page

Contact Us:
Centers for Disease Control and Prevention
1600 Clifton Rd
Atlanta, GA 30333
800-CDC-INFO
(800-232-4636)
TTY: (888) 232-6348
Contact CDC-INFO

HIV Infection and Adult Vaccination

Vaccines are especially critical for people with chronic health conditions such as HIV infection.

If you have HIV infection and your CD4 count is 200 or greater[1], talk with your doctor about:

- Influenza vaccine each year to protect against seasonal flu
- Tdap vaccine to protect against whooping cough and tetanus
- Pneumococcal vaccine to protect against pneumonia and other pneumococcal diseases
- Hepatitis B vaccine series to protect against hepatitis B
- HPV vaccine series to protect against human papillomavirus if you are a man or woman up to age 26 years
- MMR vaccine to protect against measles, mumps, and rubella if you were born in 1957 or after and have not gotten this vaccine or have immunity to these diseases
- Varicella vaccine to protect against chickenpox if you were born in 1980 or after and have not gotten two doses of this vaccine or have immunity to this disease

If you have HIV infection and your CD4 count is less than 200[2], talk with your doctor about:

- Influenza vaccine each year to protect against seasonal flu
- Tdap vaccine to protect against whooping cough and tetanus
- Pneumococcal vaccine to protect against pneumonia and other pneumococcal diseases
- Hepatitis B vaccine series to protect against hepatitis B
- HPV vaccine series to protect against human papillomavirus if you are a man or woman up to age 26 years

Footnotes

1. If CD4 percentages are available, CD4 percentage should be 15% or greater.
2. If CD4 percentages are available, CD4 percentage is less than 15%.

BAZI SAPTAMALAR VAR

Human Vaccines & Immunotherapeutics

ISSN: 2164-5515 (Print) 2164-554X (Online) Journal homepage: http://www.tandfonline.com/loi/khvi20

Vaccination in HIV positive adults: Need to address

Bhumika Bhatt, Harashish Jindal, Shashikantha Sk, Jagbir Singh Malik, Kalpana Sangwan & Junior resident

- Ölü ve inaktive aşılarda risk yok, kullanılabilir
- Düşük CD4 düzeyi varsa canlı aşı kullanma!
- Ancak inaktif aşılar için aşı uygulamasının ertelenmesi zorunluluğu yok ve ileri seviyede immünsüpresyona rağmen aşı yanıtı oluşabilir
- **Gerekirse rapel dozlar**

Immunization for HIV-positive individuals

Anna Maria Geretti[a,b] and Tomas Doyle[a]

[a]Department of Virology, Royal Free Hampstead NHS Trust and [b]Department of Virology, University College Medical School, London, UK

Correspondence to Dr Anna Maria Geretti, MD, MSc, PhD, FRCPath, Department of Virology, Royal Free Hampstead NHS Trust & University College London Medical School, Pond Street, London NW3 2QG, UK
Tel: +44 2077940500;
e-mail: a.geretti@medsch.ucl.ac.uk

Current Opinion in Infectious Diseases 2010, 23:32–38

Purpose of review

This review summarizes recent literature addressing im
infection, with a specific focus on emerging evidence
positive adults.

Recent findings

There are few controlled studies on the clinical efficacy
in HIV-infected adults receiving highly active antiretrovi
data indicate that HAART restores vaccine immunoge
persistence of immune responses, while reducing the

- CD4 >200 olanlarda etkinlik daha iyi
- Çok düşük CD4 düzeylerinde aşı işe yaramayabilir

AIDS PATIENT CARE and STDs
Volume 28, Number 8, 2014

DOI: 10.1089/apc.2014.0121

Vaccination in HIV-Infected Adults

Nancy F. Crum-Cianflone, MD, MPH,[1,2] and Mark R. Wallace, MD[3]

- Olabilirse önce HAART başlanmalı
- ART altında RNA (-), CD4 > 200 hücre/mm^3 (>%15) herhangi bir aşı yapılabilir
- CD4 düşükse asla canlı aşı kullanma

CURRENT OPINION

Drugs 2008; 68 (11): 1473-1481
0012-6667/08/0011-1473/$53.45/0

Immunization in Patients with HIV Infection

Are Practical Recommendations Possible?

Brian Eley

Paediatric Infectious Diseases Unit, Red Cross Children's Hospital, School of Child and Adolescent Health, University of Cape Town, Cape Town, South Africa

- Aşılama HIV viral yükü kısa bir süre arttırabilir; bu önemsiz
- Herhangi bir aşılama sonrası viral yük yaklaşık dört hafta ölçülmemeli

TÜM HIV İLE ENFEKTE HASTALARA ÖNERİLEN AŞILAR

Recommended for All HIV Positive Adults			
Hepatitis B virus (HBV)	Hepatitis B	3 shots over a 6-month period	Recommended unless there is evidence of immunity or active hepatitis. Blood test to check for HBV antibody levels should be done after completion of immunization series. Additional shots may be necessary if antibody levels are too low.
Influenza	Flu	1 shot	Must be given every year. Only injectable flu vaccine should be given to those who are HIV positive. The nasal spray vaccine (FluMist/LAIV) should not be used in this population.
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İNFLUENZA

- **Artmış risk var mı?**

Contents lists available at ScienceDirect

Vaccine

journal homepage: www.elsevier.com/locate/vaccine

Influenza vaccination in HIV-infected individuals: Systematic review and assessment of quality of evidence related to vaccine efficacy, effectiveness and safety

Cornelius Remschmidt*, Ole Wichmann, Thomas Harder

Immunization Unit, Robert Koch Institute, Berlin, Germany

Since influenza infection in patients with human immunodeficiency virus (HIV) is associated with prolonged duration and increased severity of illness compared to the general population [1–6], annual vaccination against seasonal influenza is recommended by many national immunization guidelines. Trivalent

İNFLUENZA

- İnfluenza aşısı sezon boyunca etkinliği olan bir aşı ve her yıl uygulanır
- HIV ile enfekte bireylere her influenza sezonunda aşı uygulanmalı
- HIV ile enfekte bireylere <u>inaktif formu</u> uygulanmalı
  - Canlı aşı HIV ile enfekte bireylere uygulanmamalı

İNFLUENZA

- İnfluenza özellikle immün sistemi baskılı bireylerde pnömoni komplikasyonları ile yüksek morbidite ve mortalite nedeni
  - Bu nedenle her HIV/AIDS hastasında, aşı uygulama sezonunda, hastalık aktivitesi yoğunlaşmadan önce bağışıklık sağlanmalı
- İnfluenza aşısı uygulamalarında, yüksek doz aşı uygulamasının daha etkin bir aşı yanıtı sağlayabileceğine dair çalışmalar bulunmakta
  - Ancak daha etkin yanıt aşının içindeki her suş için sağlanamamış ve bu konuda daha fazla çalışmaya ihtiyaç bulunmakta

PNÖMOKOK AŞILARI

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Hepatitis B virus (HBV)	Hepatitis B	3 shots over a 6-month period	Recommended unless there is evidence of immunity or active hepatitis. Blood test to check for HBV antibody levels should be done after completion of immunization series. Additional shots may be necessary if antibody levels are too low.
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PPV ve PCV

- PPV 23 ……1983' ten beri
- PCV 13……2010'dan beri
- Pnömokok enfeksiyonları için artmış risk var mı?

Contents lists available at ScienceDirect

Vaccine

journal homepage: www.elsevier.com/locate/vaccine

Review

Humoral immune responses to *Streptococcus pneumoniae* in the setting of HIV-1 infection

Lumin Zhang[a], Zihai Li[a], Zhuang Wan[b], Andrew Kilby[c], J. Michael Kilby[a,c], Wei Jiang[a,c,*]

ABSTRACT

Streptococcus pneumoniae (pneumococcus) remains one of the most commonly identified causes of bacterial infection in the general population, and the risk is 30–100 fold higher in HIV-infected individuals. Both innate and adaptive host immune responses to pneumococcal infection are important against pathogen invasion. Pneumococcal-specific IgA antibody (Ab) is key to control infection at the mucosal sites. Ab

GENEL POPÜLASYONA GÖRE 30-100 KAT YÜKSEK!!!

PNÖMOKOK AŞILARI

- HIV ile enfekte tüm bireylerin pnömokok aşısı olması önerilir

- Daha önce hiç aşılanmamış bir birey için ideal aşılama programı önce KPV-13 konjuge aşı ile aşılanması ve takiben arada en az 8 hafta olacak şekilde, 1 yıla kadar süreyle, PPV-23 polisakkarit aşı olmaları

- Daha önce PPV-23 aşısı olan bireyler içinse, bir doz KPV-13 aşısı uygulanması önerilir

- HIV ile enfekte bireylere rapel olarak uygulanabilecek pnömokok aşı dozları konusunda yeterli veri yok

PNÖMOKOK AŞILARI

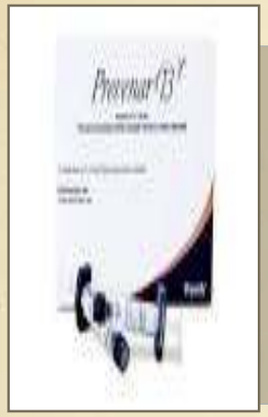
- CD4 düzeyinden bağımsız olarak yapılabilir
  - Ancak CD4 düşük olanlarda yanıt oranı da düşecektir
  - Ama CD4'ün düşüklüğü nedeniyle aşıyı ertelememek gerekir

- Eğer aşı, CD4 T lenfosit sayısı 200/mm^3'ün altındayken uygulandıysa, hücre sayısı arttığında tekrar yapılmalı

- T hücreli bağışıklığı -anamnestik yanıt- sağlamak için 13 valanlı konjuge aşı,

- Sero-grup kapsayıcılığını arttırmak için ve konjuge aşı sonrası Ab düzeyini arttırmak için de 23 valanlı polisakkarit aşı önerilmekte

TANI KONULDUKTAN SONRA



BİR DOZ PCV

SEKİZ HAFTA
SONRA PPV 23

BEŞ YIL SONRA
PPSV 23 İLE RAPEL

KİŞİ DAHA ÖNCE PPV23 OLDUYSA

- EN AZ BİR YIL SONRA PCV 13

- BEŞ YIL SONRA RAPEL PPV23

HEPATİT B AŞISI

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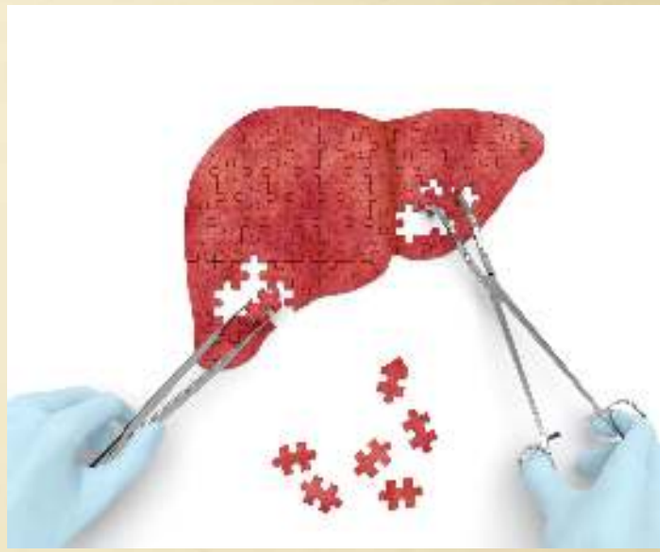
Tetanus, Diphtheria, and Pertussis (Tdap)	1. Lockjaw 2. Diphtheria 3. Pertussis	1 shot	Recommended for adults 64 years of age or younger and should be given in place of next Td booster. Can be given as soon as 2 years after last Td for persons in close contact with babies under 12 months and health care workers.

HBV açısından;

- Orta düzeyde endemik
- Ortak bulaş yolları



- Mutlaka tanı anında tarama testleri istenmeli
- Kişinin HBV açısından durumu belirlenmeli

Antikor yanıtını arttırmak için

- ÇİFT DOZ AŞI

Vaccine. 2005 Apr 22;23(22):2902-8.

Randomized trial of recombinant hepatitis B vaccine in HIV-infected adult patients comparing a standard dose to a double dose.

Fonseca MO[1], Pang LW, de Paula Cavalheiro N, Barone AA, Heloisa Lopes M.

Author information

[1]Infectious Deseases Department, University Medical School of São Paulo, Av Dr Eneas de Carvalho Aguiar 500, 100 andar, sala 12, CEP 05403-000 São Paulo, SP, Brazil. marisefonseca@medicina.ufmg.br

Abstract

Because HIV and hepatitis B virus share many common risk factors, it is important to try to vaccinate HIV patients against hepatitis B. There are numerous reports describing a variety of dose schedules, limited success and markers associated with impaired response to HBV vaccine in these individuals. All studies have been small in size making it difficult to draw conclusions within and between studies. The purpose of this study was to evaluate a double dose of hepatitis B vaccine under more definitive guidelines: double blinded, randomized, controlled, with numbers for statistical validity. Two hundred and ten HIV infected subjects received a standard dose (20 microg) or a double dose (40 microg) of recombinant hepatitis B vaccine IM 0, 1 and 6 months. Ninety-four receiving standard dose and 98 receiving double dose completed the study. The seroconversion rate (anti-HBs > or = 10 mIU/mL) was 47 and 34% for double dose and standard dose, respectively (p = 0.07). A statistically significant higher seroconversion rate was associated with double dose comparing with standard dose for patients with CD4 cell counts > or = 350 cells/mm3 (64.3% x 39.3%; p = 0.008) but made no difference to seroconversion in those with CD4 <350 (23.8% x 26.3%; p = 0.80). Double dose also improved seroconversion comparing with standard dose for patients with HIV viral load <10,000 copies/mL (58.3% x 37.3%; p = 0.01) but made no difference to seroconversion in those with HIV viral load > or = 10,000 copies/mL (16% x 17%; p = 0.7). Based on the results of this study, the best current strategy for hepatitis B vaccination in HIV patients would be to use a double dose as a primary series when the viral load is likely to be low and CD4> or = 350, when there is likely to be an adequate immune response.

- ÜÇ KEZ ÇİFT DOZ AŞI
- %34 TEN %47 YE

Abstract

Because HIV and hepatitis B virus share many common risk factors, it is important to try to vaccinate HIV patients against hepatitis B. There are numerous reports describing a variety of dose schedules, limited success and markers associated with impaired response to HBV vaccine in these individuals. All studies have been small in size making it difficult to draw conclusions within and between studies. The purpose of this study was to evaluate a double dose of hepatitis B vaccine under more definitive guidelines: double blinded, randomized, controlled, with numbers for statistical validity. Two hundred and ten HIV infected subjects received a standard dose (20 microg) or a double dose (40 microg) of recombinant hepatitis B vaccine IM 0, 1 and 6 months. Ninety-four receiving standard dose and 98 receiving double dose completed the study. The seroconversion rate (anti-HBs > or = 10 mIU/mL) was 47 and 34% for double dose and standard dose, respectively (p = 0.07). A statistically significant higher seroconversion rate was associated with double dose comparing with standard dose for patients with CD4 cell counts > or = 350 cells/mm3 (64.3% x 39.3%; p = 0.008) but made no difference to seroconversion in those with CD4 <350 (23.8% x 26.3%; p = 0.80). Double dose also improved seroconversion comparing with standard dose for patients with HIV viral load <10,000 copies/mL (58.3% x 37.3%; p = 0.01) but made no difference to seroconversion in those with HIV viral load > or = 10,000 copies/mL (16% x 17%; p = 0.7). Based on the results of this study, the best current strategy for hepatitis B vaccination in HIV patients would be to use a double dose as a primary series when the viral load is likely to be low and CD4> or = 350, when there is likely to be an adequate immune response.

Antikor yanıtını arttırmak için
ÇİFT DOZ , DÖRT VE ÜZERİ SERİ

Original Contribution | April 13, 2011

Safety and Immunogenicity of 4 Intramuscular Double Doses and 4 Intradermal Low Doses vs Standard Hepatitis B Vaccine Regimen in Adults With HIV-1

A Randomized Controlled Trial FREE

Odile Launay, MD, PhD; Diane van der Vliet, MD; Arielle R. Rosenberg, MD, PhD; Marie-Louise Michel, PhD; Lionel Piroth, MD, PhD; David Rey, MD; Nathalie Colin de Verdière, MD; Laurence Slama, MD; Karine Martin, PhD; Olivier Lortholary, MD, PhD; Fabrice Carrat, MD, PhD; for the ANRS HB03 VIHVAC-B Trial

[+] Author Affiliations

JAMA. 2011;305(14):1432-1440. doi:10.1001/jama.2011.351.

(anti-HBs) of at least 10 mIU/mL in patients who received at least 1 dose of vaccine. Patients with missing anti-HBs titer measurement at the final follow-up visit at week 28 were considered as nonresponders in the primary (efficacy) analysis.

RESULTS: A total of 437 patients were randomized to the 3 study groups, of whom 11 did not receive any vaccine. Of these, 396 had available anti-HBs titers at week 28. The percentage of responders at week 28 was 65% (95% confidence interval [CI], 56%-72%) in the IM20 × 3 group (n = 91), 82% (95% CI, 77%-88%) in the IM40 × 4 group (n = 119) (P < .001 vs IM20 × 3 group), and 77% (95% CI, 69%-84%) in the ID4 × 4 group (n = 108) (P = .02 vs IM20 × 3 group). No safety signal and no effect on CD4 cell count or viral load were observed.

CONCLUSION: In adults with HIV-1, both the 4 intramuscular double-dose regimen and the 4 intradermal low-dose regimen improved serological response compared with the standard HBV vaccine regimen.

TRIAL REGISTRATION: clinicaltrials.gov Identifier: NCT00480792

3 KEZ TEK DOZ IM AŞI İLE %65

4 KEZ TEK DOZ ID AŞI İLE %77

4 KEZ ÇİFT DOZ IM AŞI İLE %82

HEPATİT A AŞISI

- HIV ile enfekte bireyler bağışıklıkları yoksa ve Hepatit A enfeksiyonu için risk faktörleri varsa aşılanmalı
  - kronik karaciğer hastaları,
  - hepatit B veya C ko-enfeksiyonu olanlar,
  - hepatit A için endemik bölgede yaşama/seyahat durumu
  - evsizler ve bakımevinde yaşayanlar,
  - hemofili hastaları ve pıhtılaşma faktörü kullananlar,
  - ESE

Safety and Immunogenicity of an Inactivated Hepatitis A Vaccine among HIV-Infected Subjects

Mark R. Wallace,[1] Carolyn J. Brandt,[1] Kenneth C. Earhart,[1] Barbara J. Kuter,[2] Anthony D. Grosso,[2] Hassan Lakkis,[2] and Sybil A. Tasker[1]

[1]Naval Medical Center San Diego, San Diego, California, and [2]Merck, West Point, Pennsylvania

Methods. Ninety HIV-uninfe vaccine (VAQTA; Merck), and 90 HIV-infected subjects were rando ther the vaccine or placebo. The HIV-infected subjects were stratified by CD4 cell count, with 45 subjects having CD4 cell counts of ≥300 cells/mm^3 and 45 subjects having CD4 cell counts of <300 cells/mm^3. Vaccine was given at weeks 0 and 24 of the study.

Results. Seroconversion rates at week 28 of the study were 94% among the HIV-infected subjects and 100% a subjects with CD4 cell counts of <300 cells/mm^3 had a s CD4 cell counts of ≥300 cells/mm^3 had a seroconversion r o adverse effect on either HIV load or CD4 cell count was found.

Conclusion. Hepatitis A vaccine was both immunogenic and safe among HIV-infected subjects

99 HIV(–), 90 HIV (+) HASTA

90 HIV (+) HASTA SEROKONVERSİYON %94

CD4 ≤300 İSE %87

CD4 ≥300 İSE %100

DBT AŞILARI

Recommended for All HIV Positive Adults			
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DBT AŞILARI

- Rutin şema önerileri dışında, daha önce aselüler boğmaca komponenti içeren aşı olmayanların Tdap ile bir defa aşılanmaları önerilir

- Yaş ilerledikçe azalan immünite nedeniyle, toplumun geneline 10 yılda bir booster olarak önerilen tetanoz ve difteri toksoidi aşılaması, HIV ile enfekte kişiler için de önerilmeli

- HIV ile enfekte bireylerin her gebelikte bir kez Tdap aşısı olmaları önerilmekte

DBT AŞILARI

- Tetanoz aşısı için immünojenite ve yaş ile bağışıklığın azalma durumu genel populasyon ile benzer

- Difteri aşısı için ise immünojenite, HIV ile enfekte bireylerde genel populasyona göre daha düşük

- Hem difteri hem de tetanoz için aşı yanıtı T hücre aracılı olduğundan, ilerlemiş olgularda yanıt diğer kişilere oranla çok daha düşük

Clin Infect Dis. 1995 Nov;21(5):1197-203.

Antibody response to diphtheria, tetanus, and poliomyelitis vaccines in relation to the number of CD4+ T lymphocytes in adults infected with human immunodeficiency virus.

Kroon FP[1], van Dissel JT, Labadie J, van Loon AM, van Furth R.

Author information

[1]Department of Infectious Diseases, University Hospital Leiden, The Netherlands.

TdaP İLE İLGİLİ VERİ YOK

Abstract

A prospective study of antibody production by adults infected with human immunodeficiency virus (HIV) after vaccination with T lymphocyte-dependent diphtheria toxoid, tetanus toxoid, and inactivated trivalent poliovirus vaccine was conducted. Individuals were divided into three groups according to CD4+ T-lymphocyte count: group 1 had a count of < or = 100-300 x 10(6)/L; and group 3, > 300 x 10(6)/L. After vaccination, 61%, 70%, and 73% of the individuals in groups 1, 2, and 3, respectively, developed protective titers of antibody to diphtheria toxin; the mean postvaccination antibody titer of HIV-infected individuals was significantly lower than that of healthy controls not infected with HIV. Furthermore, the mean titers of antibodies to tetanus toxin and poliovirus were significantly lower in HIV-infected individuals with CD4+ lymphocyte counts of < 300 x 10(6)/L than in controls. Of the HIV-infected vaccinees, 83%-100% were protected against tetanus and 78%-100% against polio. We conclude that HIV-infected individuals with CD4+ lymphocyte counts of < 300 x 10(6)/L have an impaired (secondary) antibody response after receipt of T lymphocyte-dependent vaccines.

RİSK DURUMUNDA YAPILMASI GEREKLİ AŞILAR

- Human papilloma virüsü aşısı
- Meningokok aşısı
- MMR
- Varisella
- Seyahat ile ilgili aşılar

Human Papilloma Virüs Aşısı

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CLINICAL AND EPIDEMIOLOGIC RESEARCH

Vaccination in HIV-Infected Adults

Nancy F. Crum-Cianflone, MD, MPH,[1,2] and Mark R. Wallace, MD[3]

- HIV (+) hastalarda HPV enfeksiyonu için risk
- Konjuge 2 ve **4 valanlı**
- Dokuz valanlı yakında

J Med Virol. 2014 Mar;86(3):419-25. doi: 10.1002/jmv.23831. Epub 2013 Oct 24.

Distribution of human papillomavirus genotypes, assessment of HPV 16 and 18 viral load and anal related lesions in HIV positive patients: a cross-sectional analysis.

Tamalet C[1], Obry-Roquet V, Ressiot E, Bregigeon S, Del Grande J, Poizot-Martin I.

⊕ Author information

Abstract

Natural history of anal intraepithelial neoplasia and anal cancer is not fully understood. Factors associated with cytological abnormalities and predictors of progression to high-grade anal intraepithelial neoplasia still deserve investigation. The aim of this cross-sectional study was to assess the prevalence of HPV types, the relationship between HPV genotypes, HPV 16/18 viral load and cytological abnormalities in male and female HIV-infected patients. One hundred and twenty-two (72.6%) patients were infected with HPV, 75 (61%) had multiple HPV infection, and 94 (77%) had high-risk HPV infection. The most frequently identified HPV types were HPV 16 (64%), HPV 6 (39%), HPV 18 (31%), HPV 53 (14.7%), HPV 33 (10.6%), HPV 11 (8.2%), HPV 70 (5.7%), and HPV 61 (4.9%). The HPV types which were most frequently found in combination were HPV 6 + 16 (9.8%), 6 + 16 + 18 (8.2%), 16 + 18 (6.6%), 6 + 18 (4.9%), 16 + 33 (3.3%), 16 + 53 (3.3%). Median HPV16 and 18 viral loads were 6.1 log10 copies/10(6) cells [IQR 5.0-7.3] and 6.1 log10 copies/10(6) cells [IQR 5.7-6.0], respectively. Male gender (P = 0.03, OR: 1.2 [1.0-1.4]) and homo/bisexual transmission routes (P = 0.044, OR: 1.4 [1.0-1.9]) were associated with HPV 16 infection. An HPV 16 viral load cut-off ≥5.3 log10 copies/10(6) cells and a CD4+ cell count ≤200/μl were independent factors associated with abnormal cytology. In the absence of national consensus guidelines, a strict regular follow-up at shorter intervals is recommended for HIV-infected patients with abnormal cytology, especially low grade squamous intraepithelial lesions, an HPV 16 viral load ≥5.3 log/10(6) cells and a CD4+ cell count ≤200/μl.

- Hastaların %77'sinin HPV enfeksiyonu için yüksek risk faktörü var
- En sık saptanan serotipler: 16, 6, 18, 53, 33

Öneriler

- Aşı öncesi test önerilmiyor
- Hastalık bulgusu (genital siğil, anormal sitoloji, HPV-DNA pozitifliği gibi) olması aşı olmaya kontrendike değil
- 0,1-2, 6. aylarda
- Cinsel aktif çağ öncesi olması en iyi

Koruyuculuk

- HIV(-) >%95
- HIV(+)Adölesan >%96

Adult kadın%92-100

Adult erkek > %95

Levin MJ, Moscicki AB, Song LY, et al. Safety and immunogenicity of a quadrivalent human papillomavirus (types 6, 11, 16, and 18) vaccine in HIV-infected children 7 to 12 years old. J Acquir Immune Defic Syndr 2010; 55:197–204.

Kahn JA, Xu J, Kapogiannis BG, Rudy B, Gonin R, Liu N, Wilson CM, Worrell C, Squires KE. Immunogenicity and safety of the human papillomavirus 6, 11, 16, 18 vaccine in HIV-infected young women. Clin Infect Dis 2013;57:735–744.

MENİNGOKOK AŞISI

- 4 valanlı konjuge aşı ve polisakkarit aşı
- Aşı uygulama endikasyonu varsa, bu aşı polisakkarit olmamalı, konjuge aşı uygulanmalı
- Uygulama endikasyonları, toplumdaki genel endikasyonlarla aynı
  - Yurtta kalma
  - Aspleni
  - Kompleman eksiklikleri
  - Endemik bölgeye seyahat
  - Meningokoklarla çalışma
- Gereklilik halinde 5 yılda bir rapel doz

Centers for Disease Control and Prevention (CDC). Notes from the field: Serogroup C invasive meningococcal disease among men who have sex with men — New York City, 2010–2012. *MMWR Morb Mortal Wkly Rep* 2013 Jan 4; 61:1048. (http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6151a4.htm)

PubMed abstract (Free)

- **New-York**
- Ağustos 2010- Aralık 2012
- 18 olgu (12'si 2012'de, 10'u HIV(+), 5'i ex)
- Normalde yüzbinde 0.16
- MSM yüzbinde 12.6 !!!

MMR

- Canlı, atenüe aşı
- CD4 200'ün altındaysa kontrendike!
- İhtiyaç var mı?
- HIV(+) hastalarda kızamık mortalitesi yüksek

Vaccine 32 (2014) 6020–6023

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Vaccine

journal homepage: www.elsevier.com/locate/vaccine

High need for MMR vaccination in HIV infected adults in Austria

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[c] Department of Emergency Medicine, Medical University of Vienna, Austria

Current guidelines recommend screening for HIV infected patients susceptible for vaccine preventable diseases and offering of immunization. However, data regarding the vaccination coverage among this group are largely missing. This study analyzed the serostatus for Measles, Mumps and Rubella of more than 700 HIV infected patients residing in Austria. These patients were representative for the Austrian HIV cohort regarding sex, age, transmission risk and HIV progression markers. 73.6% were on suppressive HAART, mean CD4 cell count was 603 c/μl. Seronegativity was 8.4% for Measles, 33.4% for Mumps and 18.8% for Rubella. In total, out of the 713 HIV infected adults analyzed, almost half (47.8%) would require MMR vaccination. In a multivariate analysis migration was significantly associated with seronegativity for Measles (OR 0.5, CI 0.27–0.9) and Mumps (OR 0.57, CI 0.39–0.81). Importantly due to the well preserved immune status of nearly all participants vaccination would be feasible in the majority of the seronegative patients. Thus, a proactive approach would largely reduce the number of patients at risk for vaccine-preventable diseases.

VARİSELLA AŞISI

- Canlı atenüe aşı
- CD4 ü < 200 olanlarda kontrendike
- HIV (+) hastalarda artmış risk
- Seroloji negatifse
- Suçiçeği bağışıklığı için kanıtı olmayan kişilerde, VZV ile temas durumunda VZIG uygulanabilir
- IG uygulaması yapılırsa en az 3 ay canlı aşı uygulanmaması gerektiği akılda tutulmalı

SU ÇİÇEĞİ

National Institutes of Health Advanced

Abstract Send to:

AIDS Res Hum Retroviruses. 2007 Jun;23(6):782-93.

Evaluation of modified vaccinia virus Ankara as an alternative vaccine against smallpox in chronically HIV type 1-infected individuals undergoing HAART.

Cosma A[1], Nagaraj R, Staib C, Diemer C, Wopfner F, Schätzl H, Busch DH, Sutter G, Goebel FD, Erfle V.

Author information

Abstract

The fear of malevolent use of variola virus by terrorists has led to the implementation of a health care worker vaccination program and to the consideration of vaccination for the general public. However, due to concerns about side effects of the classical smallpox vaccine, especially for immunocompromised individuals, a safer vaccine is urgently needed. We characterized the immunogenicity of modified vaccinia virus Ankara (MVA), one of the more promising alternative smallpox vaccines, in a cohort of 10 chronically HIV-1-infected individuals undergoing highly active antiretroviral therapy (HAART). Nine subjects received smallpox vaccination as children while one subject was never vaccinated against smallpox. All the subjects had CD4 counts >400 cells/mm(3) and 8 out of 10 had undetectable viral loads. MVA was able to elicit humoral and cellular immune responses in the majority of individuals. Vaccinia-specific antibodies were mainly of the IgG class while T cells specific to vaccinia were predominantly CD8(+). The immune responses were maintained over 1 year. Similar vaccinia specific humoral immune responses were observed when our cohort of HIV-1-infected individuals was compared to smallpox-vaccinated healthy subjects. The observed immune responses suggest that the highly attenuated MVA could be used as a substitute vaccine against smallpox in chronically HIV-1-infected individuals undergoing HAART.

PMID: 17604541 [PubMed - indexed for MEDLINE]

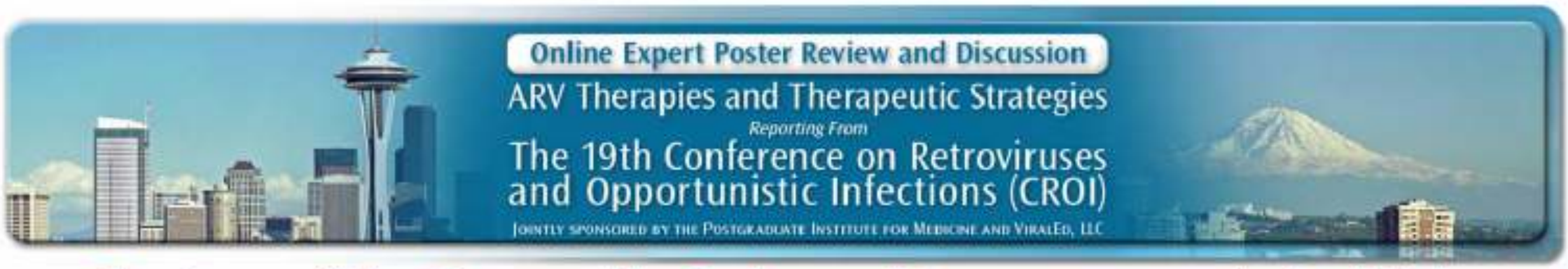
Serolojisi negatif olan 10 hastaya 2 doz aşı yapılmış (8 hasta çocukluğunda aşılanmış)
CD4 düzeyleri>400

ZOSTER AŞISI

- HIV ile enfekte bireyler 50 yaş üzerindeyse ve CD4 T lenfosit sayısı 200/mm^3'den fazlaysa önerilir

- Öncelikli öneri en az 8 hafta arayla iki doz rekombinant aşı -inaktif- uygulanması

- Bu aşının temin edilememesi durumunda, CD4 T lenfosit sayısı koşuluna uymak kaydıyla canlı aşı da uygulanabilir



Zostavax® is Generally Safe and Immunogenic in HIV-Infected Adults with CD4 Counts ≥200 Cells/µL Virologically Suppressed on ART: Results of a Phase 2, Randomized, Placebo-Controlled Trial

CA Benson, L Hua, JW Anderson, JH Jiang, DR Bozzolo, K Bergstrom, PW Annunziato, SW Read, R Pollard, D Rusin, J Lennox

for the ACTG A5247 Team

Abstract #96

KUDUZ AŞISI

Ülkemiz için "Kuduz Saha Rehberi" önerileri doğrultusunda riskli temas sonrası uygulanan rutin aşılama şemaları ve immünglobulin uygulama önerileri, HIV ile enfekte bireylerin yaralanmaları için de geçerli

BCG AŞISI

BCG aşısı HIV ile enfekte bireylere uygulandığında dissemine tüberküloz olguları bildirilmesi nedeniyle önerilmemekte

SEYAHAT İLE İLGİLİ AŞILAR

- Hepatit A
- Polio
- Sarı Humma
- Japon ensefaliti
- Tifo

POLİO AŞISI

- Rehberlerde öneri yok
- Ancak endemik bölgeye gidilecekse inaktive polio aşısı önerilmekte
- CD4>300 , aşı yanıtı %78-100
- Oral canlı polio aşısı kontrendike

Sarı Humma Aşısı

- Canlı atenüe aşı
- Güney Amerika ve Afrikada endemik
  - Mümkünse endemik bölgeye gitmemeli
- CD4 < 200, aşı sonrası ensefalomyelit
- Sinek ısırığından korun ☺
- Bu bölgelere gidilecek ise CD4 >200 ise yapılabilir
- Yanıt oranı %83

Franco-Paredes C, Hidron A, Tellez I, Lesesne J, Del Rio C. HIV infection and travel: Pretravel recommendations and health-related risks. Top HIV Med 2009;17:2–11.

TİFO AŞISI

- Endemik bölgeye gidilecekse
- İnaktive kapsüler polisakkarit aşı kullanılmalı
- Yanıt oranı düşük
- CD4<200 ise daha da düşük ☹
- Gıda-su hijyenine dikkat daha ön planda

Kroon FP, van Dissel JT, Ravensbergen E, Nibbering PH, van Furth R. Impaired antibody response after immunization of HIV-infected individuals with the polysaccharide vaccine against Salmonella typhi (Typhim-Vi). Vaccine 1999;17:2941–2945.

JAPON ENSEFALİTİ

Japon ensefaliti sezonunda, kırsal alanları içine

alan bir aydan kısa dönem için gidenlere

Japon ensefaliti salgını olan bölgelere gidenlere

İnaktive aşı HIV(+) hastalarda kullanılabilir

(28 gün arayla 2 doz, bir yıl sonra rapel)

- Bazı faktörler, HIV/AIDS hastalarında aşı yanıtını olumsuz etkileyerek beklenen korumanın sağlanamamasına neden olabilir
  - ilerlemiş hastalık,
  - düşük CD4 T lenfosit sayısı,
  - yüksek viral yük seviyesi

- Bu durum uygun ve gerekli aşıların yapılmasına engel teşkil etmemeli

- Kılavuz önerileri başta olmak üzere, bilimsel bilgiler doğrultunda uygun aşılama şemaları, HIV ile enfekte hastaların tümüne uygulanmalı

- Bu uygulamalar rutin hasta takibinin parçası haline getirilmeli


Teşekkür
ederim