ERİŞKİN AŞILAMASINDA GELİŞMELER

FİRDEVS AKTAŞ
GAZİ ÜNİVERSİTESİ TIP FAKÜLTESİ
4 MART 2016, KONYA

ERİŞKİNDEN ÖNCE ÇOCUK AŞILAMASINDA GELİŞMELER

ÇOCUKLARINI AŞILATMAYAN ERİŞKİNLER AŞI OLUR MU?


Yargıtay noktayı koydu
GEREKÇE YOKSA
AŞI VAR
haberpart


ANAYASA MAHKEMESİ:
ZORLA AŞI OLMAZ

Zorla Aşı Yapmak Kanuna Aykırıdır!

http://www.hastahaklari.net/Zorla-Asi-Yapmak-Kanuna-Aykiridir--380-haberi.aspx

- 30.04.2013

Katılımcılar:

Adalet Platformu
Aşı Yaptırmaya Mecbur Değilim Hareketi
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Tü-mer

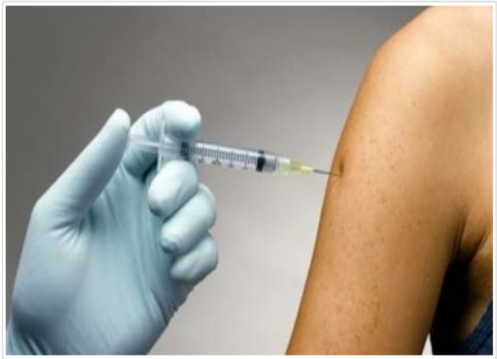
AŞI UYGULAMALARINDA YASAL ZORUNLULUK ÇALIŞMA GRUBU RAPORU

16.02.2016

Kişilerin sağlıklarının korunması ve bozulan sağlıklarının tedavilerine yönelik her türlü işlem ve vücut bütünlüğüne yönelik girişimler tıbbi müdahaledir. Tıbbi müdahale öncesinde kişinin veya yasal vasisinin rızasının alınması gereklidir. Acil durumlar, hayat kurtarıcı müdahaleler, toplum sağlığı ve kişinin sağlığına yönelik kesin yararın söz konusu olduğu durumlarda kişi lehine hareket edilmesi esas olduğundan aşağıda sunulmuş olan hastalıklara karşı çocukluk çağında aşı uygulanması çocuğun üstün yararının yanı sıra hem çocuğun bulunduğu toplumun hem de bulunduğu hane halkının sağlığının korunmasına hizmet etmektedir.

Bu amaçla ilgili Kanun'a "Tıbben kabul edilebilir herhangi bir engel bulunmadıkça Hepatit B, Verem, Difteri, Boğmaca, Tetanoz, Çocuk felci, H.influenza tip b (Hib) enfeksiyonları, Kızamık, Kızamıkçık, Kabakulak, Pnömokokal hastalıklar, Hepatit A ve Suçiçeği hastalıklarına karşı çocukluk döneminde Sağlık Bakanlığınca belirlenecek aşı takvimine göre aşılama zorunludur." hükmünün ilavesi uygun olacağı değerlendirilmiştir.

Tetanoz Aşısı Yapmadığı İçin Hastası Ölen Doktora Para Cezası !



15 Aralık 2015 tarihinde eklendi, 1.449 kez okundu.

Zonguldak'ta ağaçtan düşerek yaralanan vatandaşa, acil serviste tetanos aşısı yapmadan tedavi uygulayıp taburcu ederek ölmesine neden olduğu iddia edilen hekime, 50 bin 200 TL para cezası verildi.

İddiaya göre 20 Ekim 2009 yılında yaşanan olayda, 75 yaşındaki H.K., köyünde meyve toplarken ağaçtan düşerek yaralandı. Olayın akabinde H.K. yakınları tarafından hastaneye kaldırıldı. Yakınları, 'tetanos aşısı var' deyince acil servis doktoru A.T. bu aşıyı yapmadı. Yaralının yarasını dikip evine gönderdi. Olaydan 10 gün sonra fenalaşan H.K. tekrar hastaneye kaldırıldı. Bu sefer beyin cerrahı tarafından tetanos aşısı yapılan yaşlı adam, kurtarılamadı. Yakınları, konuyu yargıya taşıyarak doktordan şikayetçi oldu. Doktor hakkında 'taksirle ölüme sebebiyet verme' iddiasıyla dava açıldı. Dava kapsamında İstanbul Adli Tıp Kurumu 1. İhtisas Kurulu tarafından hazırlanan raporda Doktor A.T.'nin tetanos aşısı uygulamaksızın hastayı taburcu etmesinin hastanın ölümünde etkili olduğu kaydedildi. Çıkarıldığı mahkemece 1 yıl 8 ay hapis cezasına çarptırılan A.T.'nin cezası, Zonguldak Adliyesi 2. Sulh Hukuk Mahkemesi tarafından 50 bin 200 TL'lik para cezasına çevrildi.

MAHKEME, KARAR TUTANAĞINI TIP FAKÜLTELERİ VE SAĞLIK BAKANLIĞI'NA GÖNDERDİ

Mahkemenin kararı, birçok doktorun ve vatandaşın karşılaşabileceği bir sorun olması dikkate alınarak Tıp Fakültesi öğrencilerinin bilgilendirilmesi için YÖK Başkanlığı'na ve hastanelerin acil servislerinde görev yapan sağlık personellerinin bilgilendirilmesi için de Sağlık Bakanlığı Personel Genel Müdürlüğü'ne gönderildi.

HAKİM, DOKTORLARIN DİKKATİNİ ÇEKTİ

Bu arada davayı karara bağlayan Zonguldak 2. Asliye Hukuk Mahkemesi Hakimi Kemal Karanfil, sosyal medya üzerinden 'Bilhassa acildeki doktorların dikkatine:' başlığıyla duyurduğu paylaşımında, şunları yazdı: "Yaralı olarak gelen kişinin, yarası kirli ise, paslı bir şey ile teması varsa Tetanos aşısını ihmal etmeyin. Yoksa yaralı ölürse hem taksirde adam öldürmekten

Sağlık Bakanlığı
Türkiye Halk Sağlığı Kurumu

Ülkemizde Erişkinlere Yönelik Aşı Uygulamaları

- Hepatit-B Aşılaması
- Doğurganlık Çağı Kadınlara Kızamıkçık Aşılaması
- Doğurganlık Çağı Kadınlara Tetanoz Aşılaması
- Erişkin Tetanoz Aşılaması
- Pnömokok ve Grip Aşısı Uygulaması

10 EYLÜL 2014 Bağışıklama Danışma Kurulu Toplantısı

Sağlık Bakanlığı
Türkiye Halk Sağlığı Kurumu

Ülkemizde Erişkinlere Yönelik Aşı Uygulamaları

- Düzensiz göçmenlerle temas eden kolluk kuvvetleri Aşılaması
- Hac ve Umre Aşılaması
- Askerlik Dönemi Aşılaması
- Sağlık Çalışanı Aşılaması
- Seyahat Sağlığı Aşılaması

10 EYLÜL 2014 Bağışıklama Danışma Kurulu Toplantısı

- Bazı aşıların SUT geri ödemesinin sağlanması veya GBPde olan aşıların erişkine ücretsiz yapılması

Sağlık Bakanlığı
Türkiye Halk Sağlığı Kurumu

Ülkemizde Erişkinlere Yönelik Aşı Uygulamaları

- Düzensiz göçmenlerle temas eden kolluk kuvvetleri Aşılaması
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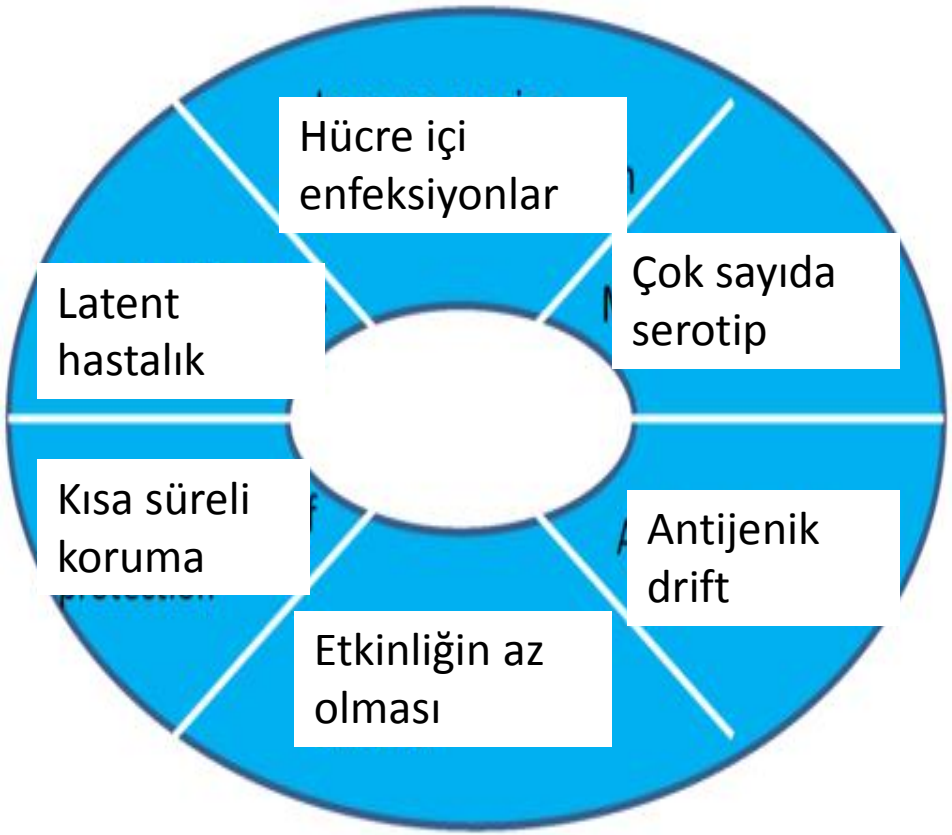
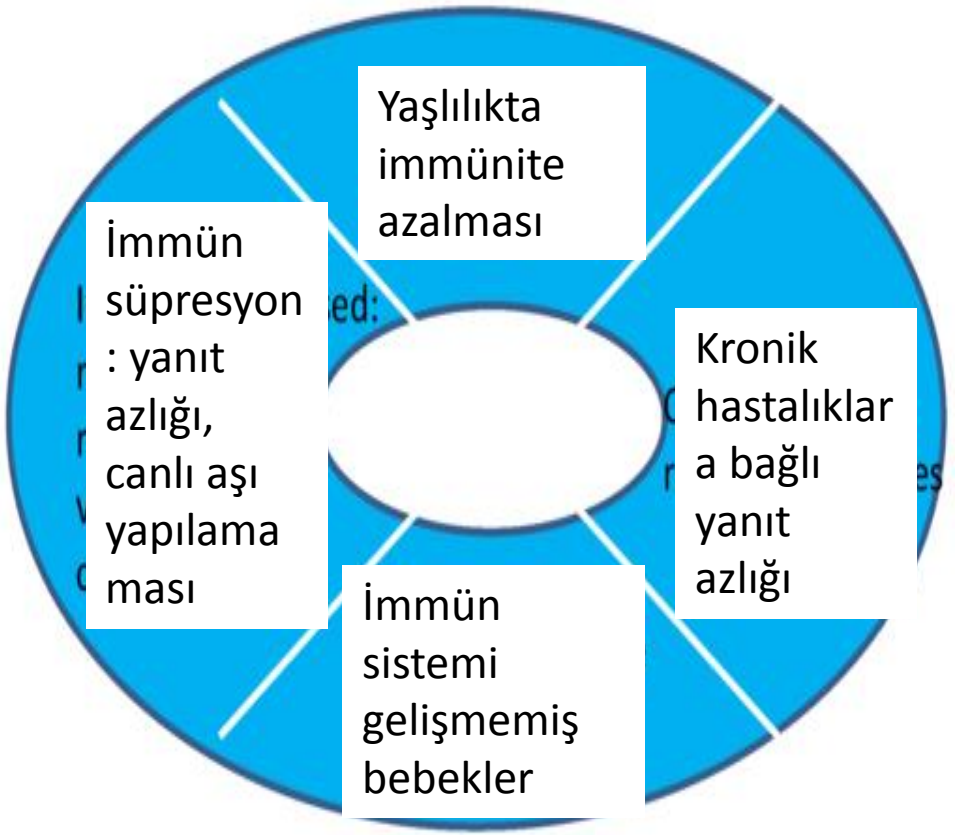
- Bazı aşıların SUT geri ödemesinin sağlanması veya GBPde olan aşıların erişkine ücretsiz yapılması

AŞILAMA SORUNLARI

PATOJEN İLİŞKİLİ



KONAK İLİŞKİLİ



ERİŞKİN AŞILAMASINDA GELİŞMELER

- Aşı etkinliğini arttırma

✓ Yeni adjuvanlar

✓ Yeni uygulamalar

- Aşı kapsayıcılığını arttırma
- Uygulama zorluklarını aşmak

✓ İntra nazal , oral aşılar, patch aşılar

- Ciddi ve öldürücü potansiyeli olan ve tedavi güçlükleri olan hastalıklara karşı koruyucu aşılar

Erişkin bağışıklamasında yeni aşılar

- İNFLUENZA AŞISI
- KONJUGE PNÖMOKOK AŞISI VE POLİSAKKARİD AŞILARI
- HPV AŞILARI
- ZOSTER AŞISI
- Meningokok tip b aşısı

Yeni İnfluenza Aşıları

- İnfluenza B virüslerine karşı tam kapsayıcılık

Tetravalan influenza aşısı iki influenza B antijeni (Victoria ve Yamagata) içermektedir.

Yeni İnfluenza Aşıları

- Etkinliğin düşük olduğu gruplar

  Antijen miktarı yüksek influenza aşıları

FLUZONE
60 mcg of hemaglutinin içeriyor
Standart doz 15 mcg

Comparative effectiveness of high-dose versus standard-dose influenza vaccines in US residents aged 65 years and older from 2012 to 2013 using Medicare data: a retrospective cohort analysis

Hector S Izurieta*, Nicole Thadani*, David K Shay, Yunlu, Aaron Maurer, Ivo M Foppa, Riley Franks, Douglas Pratt, Richard A Forshee, Thomas Matthews, Chris Worrall, Andrew E Howery, Jeffrey Kelman

Summary

Background A high-dose trivalent inactivated influenza vaccine was licensed in 2009 by the US Food and Drug Administration (FDA) on the basis of serological criteria. We sought to establish whether high-dose inactivated influenza vaccine was more effective for prevention of influenza-related visits and hospital admissions in US Medicare beneficiaries than was standard-dose inactivated influenza vaccine.

Methods In this retrospective cohort study, we identified Medicare beneficiaries aged 65 years and older who received high-dose or standard-dose inactivated influenza vaccines from community pharmacies that offered both vaccines during the 2012–13 influenza season. Outcomes were defined with billing codes on Medicare claims. The primary outcome was probable influenza infection, defined by receipt of a rapid influenza test followed by dispensing of the neuraminidase inhibitor oseltamivir. The secondary outcome was a hospital or emergency department visit, listing a Medicare billing code for influenza. We estimated relative vaccine effectiveness by comparing outcome rates in Medicare beneficiaries during periods of high influenza circulation. Univariate and multivariate Poisson regression models were used for analyses.

Findings Between Aug 1, 2012 and Jan 31, 2013, we studied 929 730 recipients of high-dose vaccine and 1 615 545 recipients of standard-dose vaccine. Participants enrolled in each cohort were well balanced with respect to age and presence of underlying medical disorders. The high-dose vaccine (1·30 outcomes per 10 000 person-weeks) was 22% (95% CI 15–29) more effective than the standard-dose vaccine (1·01 outcomes per 10 000 person-weeks) for prevention of probable influenza infections (rapid influenza test followed by oseltamivir treatment) and 22% (95% CI 16–27%) more effective for prevention of influenza hospital admissions (0·86 outcomes per 10 000 person-weeks in the high-dose cohort *vs* 1·10 outcomes per 10 000 person-weeks in the standard-dose cohort).

Interpretation Our retrospective cohort study in US Medicare beneficiaries shows that, in people 65 years of age and older, high-dose inactivated influenza vaccine was significantly more effective than standard-dose vaccine in prevention of influenza-related medical encounters. Additionally, the large population in our study enabled us to show, for the first time, a significant reduction in influenza-related hospital admissions in high-dose compared to standard-dose vaccine recipients, an outcome not shown in randomised studies. These results provide important new information to be considered by policy makers recommending influenza vaccinations for elderly people.

Funding FDA and the office of the Assistant Secretary of Planning and Evaluation.

Lancet Infect Dis 2015; 15: 293–300

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See Comment page 253

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Introduction

Elderly people are at an increased risk of severe influenza-related complications compared with young people.[1,2] People aged 65 years and older account for more than 90% of all influenza deaths.[3] Despite this serious public health burden, only one large randomised placebo-controlled trial of the efficacy of an inactivated influenza vaccine in elderly people has been done.[4–6] That study[4] showed an efficacy of 58% (95% CI 26–77) for the prevention of symptomatic clinical illness associated with laboratory-confirmed influenza illness in participants aged 60 years and older; in those aged 60–69 years, vaccine efficacy was 59% (20 to 79), whereas in participants aged 70 years and older, it was 57% (−36 to 87). Thus, most information about the effects of the influenza vaccine in people aged 65 years and older is based on observational studies. In these studies,[7–9] estimates of effectiveness of standard-dose inactivated influenza vaccines in the prevention of serious influenza-associated outcomes in people aged 65 years and older have varied widely, suggesting moderate to no effectiveness. Identification of ways to improve the clinical effects of influenza vaccination to reduce influenza disease and its complications in people aged 65 years and older is a public health priority. Researchers have been exploring new vaccines that might increase effectiveness in elderly people.[10]

In December, 2009, the US Food and Drug Administration (FDA) licensed an injectable inactivated

Lancet Infect Dis 2015; 15: 293–300

- 2012-2013
- ≥65 YAŞ
- Yüksek doz/standart doz aşı
- Retrospektif kohort
- Yüksek doz aşı alan 929 730 kişi
- Standart doz aşı alan 1 615 545 kişi
- Yüksek doz aşı influenzayı önlemede ve influenza nedeniyle hastaneye yatışlarını önlemede 22% daha etkili

Yeni İnfluenza Aşıları

- Yumurta proteinine allerji

•Hücre kültürü aşıları
Memeli hücre kökenli inaktif aşı (Flucelvax)

•Rekombinant hemaglutinin aşısı —
Baculovirus ekspresyonu (Flublok)

Her iki aşının etkinliği yumurtada hazırlanan aşı gibi

MF59 adjuvanlı influenza aşısı

- Squalen adjuvanlı inaktif, trivalan influenza aşısı (Fluad)

  ≥65 yaş için öneriliyor. (Kasım 2015)
- Yüksek doz aşılar kadar bağışıklık sağlayacağı öngörülüyor

Yeni İnfluenza Aşıları

- İnfluenza aşısının her yıl yapılma zorunluluğu

  Virüsün hemaglütinin ve nörominidaz gibi değişkenlik gösteren bölgeleri yerine daha sabit antijenik bölgelerinin kullanılması

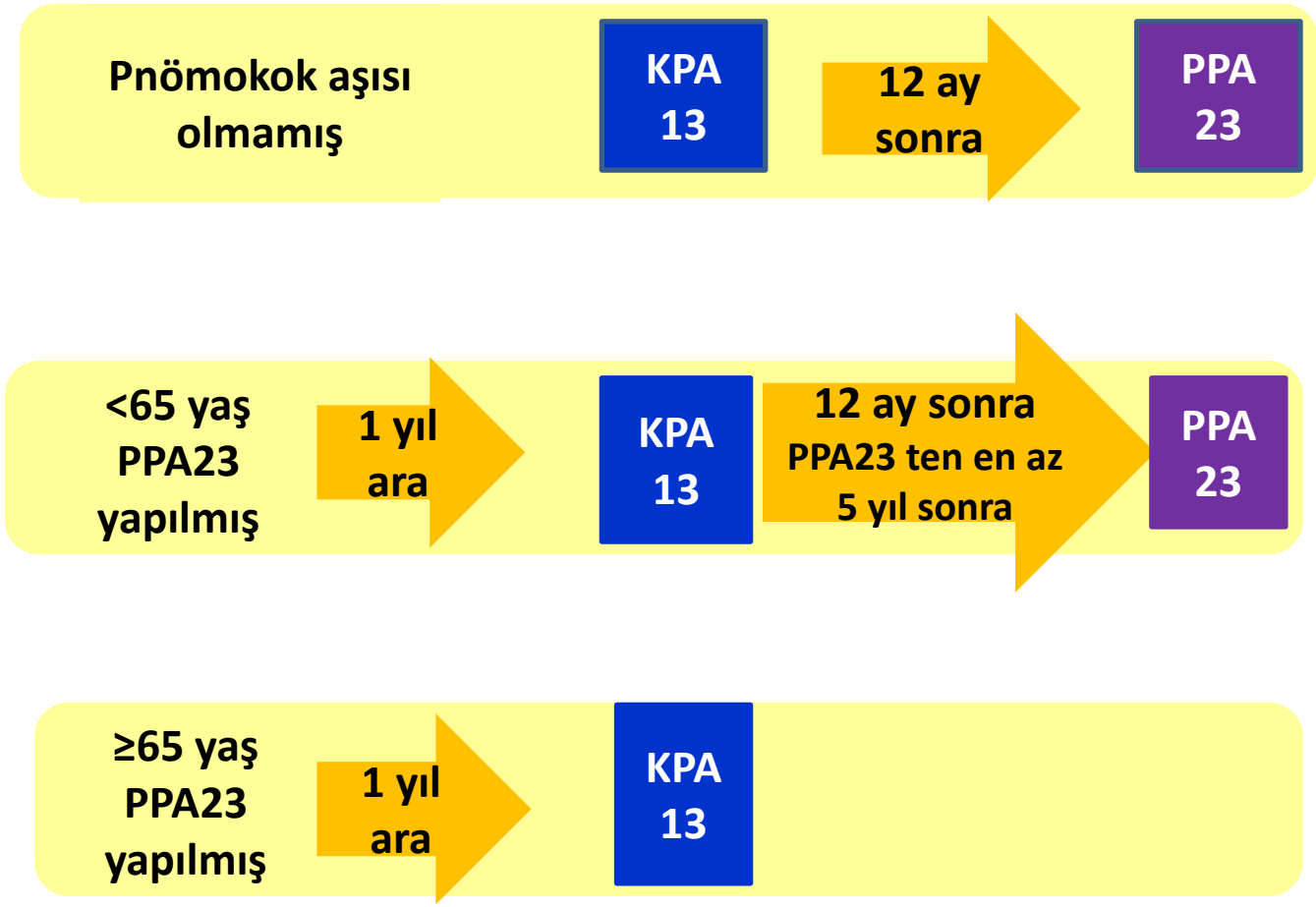
Pnömokok aşıları

Polisakkarid Pnömokok Aşısı (PPA23)
İnvaziv hastalığa en sık neden olan 23 pnömokok antijenini içerir

13 değerli konjuge pnömokok (KPA13) aşısı etkinliği daha yüksek bir aşıdır.

İki aşının birlikte kullanımı ile etkinlik ve kapsayıcılığını arttırma hedeflenmiştir

65 YAŞ VE ÜZERİ PNÖMOKOK AŞISI UYGULAMASI



Type: Poster Presentation

Final Abstract Number: 40.022
Session: Antibiotic Resistance
Date: Thursday, April 3, 2014
Time: 12:45-14:15
Room: Ballroom

Antibiotic resistance and genomic phylogenetic analysis of animal pseudomonad isolates in comparison with human isolates

D. De Vos[1,*], J.P. Santos[2], F. Bilocq[1], M. Oliveira[3], R. Seixas[3], A. Leitao[4], P. Soentjens[5], W. Heuninckx[6], S. Jennes[1], J.-P. Pirnay[1]

[1] *Queen Astrid Military Hospital, Brussels, Belgium*
[2] *Universidade de lisboa, Lisbon, Portugal*
[3] *Universidade de Lisboa, Lisbon, Portugal*
[4] *Instituto de Investigaçao Cientifica tropical CVZ,IICT;CIISA, Lisbon, Portugal*
[5] *Centre for Infectious Diseases, Brussels, Belgium*
[6] *Queen Astrid Military Hospital, Brussels, Benin*

Background: Antibiotic resistance (ABR), a typical emerging phenomenon of highly complex and self-organising systems evolving at the edge of chaos, is a worldwide problem.

Beside over consumption and inappropriate use several fundamental issues are still not well understood, like their natural role, while data on incidence and prevalence of antibiotic resistances among animals, domesticated and wild are also only fragmentary available.

Methods & Materials: Our batch (86) included pseudomonad

for' ticarcillin + clavulanic acid, aztreonam and fosfomycin'. One extensively drug-resistant (XDR) isolate, only sensitive for aminoglycosides and colistine, while intermediate for cephalosporin, was isolated from a dog. Serotype was 12, a serotype associated with a human XDR clonal-cluster typically found in intensive care units. Resistance levels ranged from 98% (temocillin) to 0% (ceftazidime, cefepim, amikacin, colistin). Genotyping did not show any animal specific cluster. All isolates were homogeneously scattered in the global *P.aeruginosa* population structure.

Conclusion: Those data show the presence of ABR among *P.aeruginosa* isolates, originating from domesticated as well as wild animals.

http://dx.doi.org/10.1016/j.ijid.2014.03.612

Type: Poster Presentation

Final Abstract Number: 40.023
Session: Antibiotic Resistance
Date: Thursday, April 3, 2014
Time: 12:45-14:15
Room: Ballroom

Serotype prevalence and antibiotic resistance among adult invasive *Streptococcus pneumoniae* isolates in Turkey, 2005-2011

A.G. Hasçelik[1,*], N. Gürler[2], M. Ceyhan[1], L. Öksüz[2], C. Özakın[3], G. Bayramoğlu[4], Z. Gülay[5], A. Yaman[6], G. Söyletir[7], D. Perçin[8]

[1] *Hacettepe University Faculty of Medicine, Ankara, Turkey*
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[3] *Uludağ University Faculty of Medicine, Bursa, Turkey*
[4] *Karadeniz Teknik University Faculty Of Medicine, Trebizond, Turkey*
[5] *Dokuz Eylül University Faculty of Medicine, Izmir, Turkey*

cillin, cefotaxime, erythromycin and moxifloxacin susceptibilities by E-test (AB Biodisk, Sweden). Results were evaluated according to the CLSI standards and the strains isolated from CSF from others were seperated, for the interpretation of penicilin and cefotaxime. Serogrouping was performed with the latex particle agglutination and serotyping was made with the conventional Quellung reaction using commercial type-spesific antisera.

Results: In this study, 176 *Streptococcus pneumoniae* clinical isolates were tested for antimicrobial susceptibility and serotyping.

≥18 yaş erişkin hastaların steril sıvı örneklerinden elde edilen 176 *Streptococcus pneumoniae*
Serotip 3,19 A,19 F ve 6 B en sık
KPA13 % 49.4 oranında izole edilen serotipleri içeriyor

HPV aşıları

- HPV 2(Cervarix)

  Kanser ilişkili HPV 16, 18
- HPV4 (Gardasil)

  Kanser ilişkili 16, 18

  Genital siğil etkeni HPV 6,11

HPV9 AŞISI(GARDASİL 9)

- Serviks, vagina ,vulva ve anal kanser ilişkili

  HPV 16,18,31,33,45, 52 ve 58
- Genital siğil

  HPV 6 ve 11 antijenlerini içeriyor
- HPV 9 Aralık 2014 te FDA tarafından onaylandı
- 9 - 26 yaş kadın ve erkeklerde 2016 aşı takviminde

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

A 9-Valent HPV Vaccine against Infection and Intraepithelial Neoplasia in Women

E.A. Joura, A.R. Giuliano, O.-E. Iversen, C. Bouchard, C. Mao, J. Mehlsen, E.D. Moreira, Jr., Y. Ngan, L.K. Petersen, E. Lazcano-Ponce, P. Pitisuttithum, J.A. Restrepo, G. Stuart, L. Woelber, Y.C. Yang, J. Cuzick, S.M. Garland, W. Huh, S.K. Kjaer, O.M. Bautista, I.S.F. Chan, J. Chen, R. Gesser, E. Moeller, M. Ritter, S. Vuocolo, and A. Luxembourg, for the Broad Spectrum HPV Vaccine Study*

ABSTRACT

BACKGROUND

The investigational 9-valent virus-like particle vaccine against human papillomavirus (HPV) includes the HPV types in the quadrivalent HPV (qHPV) vaccine (6, 11, 16, and 18) and five additional oncogenic types (31, 33, 45, 52, and 58). Here we present the results of a study of the efficacy and immunogenicity of the 9vHPV vaccine in women 16 to 26 years of age.

METHODS

We performed a randomized, international, double-blind, phase 2b–3 study of the 9vHPV vac
qHPV vacci
2 and 6. Se
vulvar, peri
used for HI
was perfor
therapy (in
tested for I

RESULTS

The rate of
(i.e., diseas
included) in
with and th
in both vac
lated to HI
tion (susce
and 1.6 pe
96.7%; 95%
and 18 wer
lated to inje

CONCLUSIO

The 9vHPV
and 58 in
11, 16, and
9vHPV vac
the nine types covered by the vaccine. (Funded by Merck; ClinicalTrials.gov number, NCT00543543).

The authors' full names, academic degrees, and affiliations are listed in the Appendix. Address reprint requests to Dr. Joura at the Department of Gynecology and Obstetrics, Medical University of Vienna, Währinger Gürtel 18-20, Vienna, Austria, or at elmar.joura@meduniwien.ac.at.

plete list of the investigators for oad Spectrum HPV Vaccine Study vided in the Supplementary Appx, available at NEJM.org.

Med 2015;372:711-23.
1056/NEJMoa1405044

14215 kadını içeren randomize çift kör çalışma
Duyarlı populasyonda HPV-31, 33, 45, 52, 58 hastalık ve enfeksiyonu önlemede etkin
HPV 6, 11, 16 ,18 e karşı antikor yapımında HPV 4 kadar başarılı

HPV9

- HPV 9 Aralık 2014 te FDA tarafından onaylandı
- 9 - 26 yaş kadın ve erkeklerde

Koruyucu bir aşı olarak önerildi

Servikal, vulvar, vaginal, ve anal kanser ilişkili HPV 16, 18, 31, 33, 45, 52, 58
Prekanseröz ve displastik lezyonlarla ilişkili HPV 6, 11, 16, 18, 31, 33, 45, 52, 58
Genital siğil ilişkili HPV 6 ,11

Zoster aşısı

- Zona zoster ve post herpetik nevralji komplikasyonu önlemek üzere geliştirilmiş bir aşıdır.
- ≥60 yaş erişkinlerde önerilmektedir
- Kanser tanısı almadan önce yapılan aşının kemoterapi sonrası zona gelişme sıklığını anlamlı düzeyde azalttığı gösterilmiştir.

MAJOR ARTICLE

Vaccination Against Zoster Remains Effective in Older Adults Who Later Undergo Chemotherapy

Hung Fu Tseng,[1] Sara Tartof,[1] Rafael Harpaz,[2] Yi Luo,[1] Lina S. Sy,[1] Rulin C. Hetcher,[1] and Steven J. Jacobsen[1]

[1]Department of Research and Evaluation, Kaiser Permanente Southern California, Pasadena, and [2]Division of Viral Diseases, National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia

(See the Editorial Commentary by Oxman and Schmader on pages 920–2.)

Background. Approximately 40% of adults develop invasive cancer during their lifetimes, many of whom require chemotherapy. Herpes zoster (HZ) is common and often severe in patients undergoing chemotherapy, yet there are no data regarding whether these patients retain specific protection against HZ if they had previously received zoster vaccine. We conducted a study to determine whether zoster vaccine was effective in patients who subsequently underwent chemotherapy.

Methods. The cohort study consisted of Kaiser Permanente Southern California members aged ≥60 years treated with chemotherapy. The exposure variable was receipt of zoster vaccine prior to initiation of chemotherapy. In-

Kanser tanısı almadan önce yapılan aşının kemoterapi sonrası zona gelişme sıklığını anlamlı düzeyde azalttığı gösterilmiş

Herpes zoster (HZ) is a painful and often debilitating disease caused by reactivation of varicella zoster virus (VZV) that remains dormant after primary infection. HZ incidence increases substantially in adults as they age, but the other key risk factor for HZ is immunosuppression, whether due to human immunodeficiency virus (HIV) infection [1], treatment of autoimmune diseases [2–4], stem cell or solid organ transplant [5–7], hematologic malignancies, or chemotherapeutic treatment of solid tumors [8, 9]. Rates of HZ in patients undergoing chemotherapy for solid tumors, for instance, are almost 4 times the rate in healthy adults [8, 9]. In addition, immunosuppressed individuals are at greatest risk of the most severe ophthalmologic and neurologic complications of HZ, including visceral dissemination [10].

Zoster vaccine (Zostavax) has been shown to be safe and protective in immunocompetent elderly popula-

Received 3 March 2014; accepted 26 May 2014; electronically published 4 August 2014.

Serogroup B meningokok aşısı

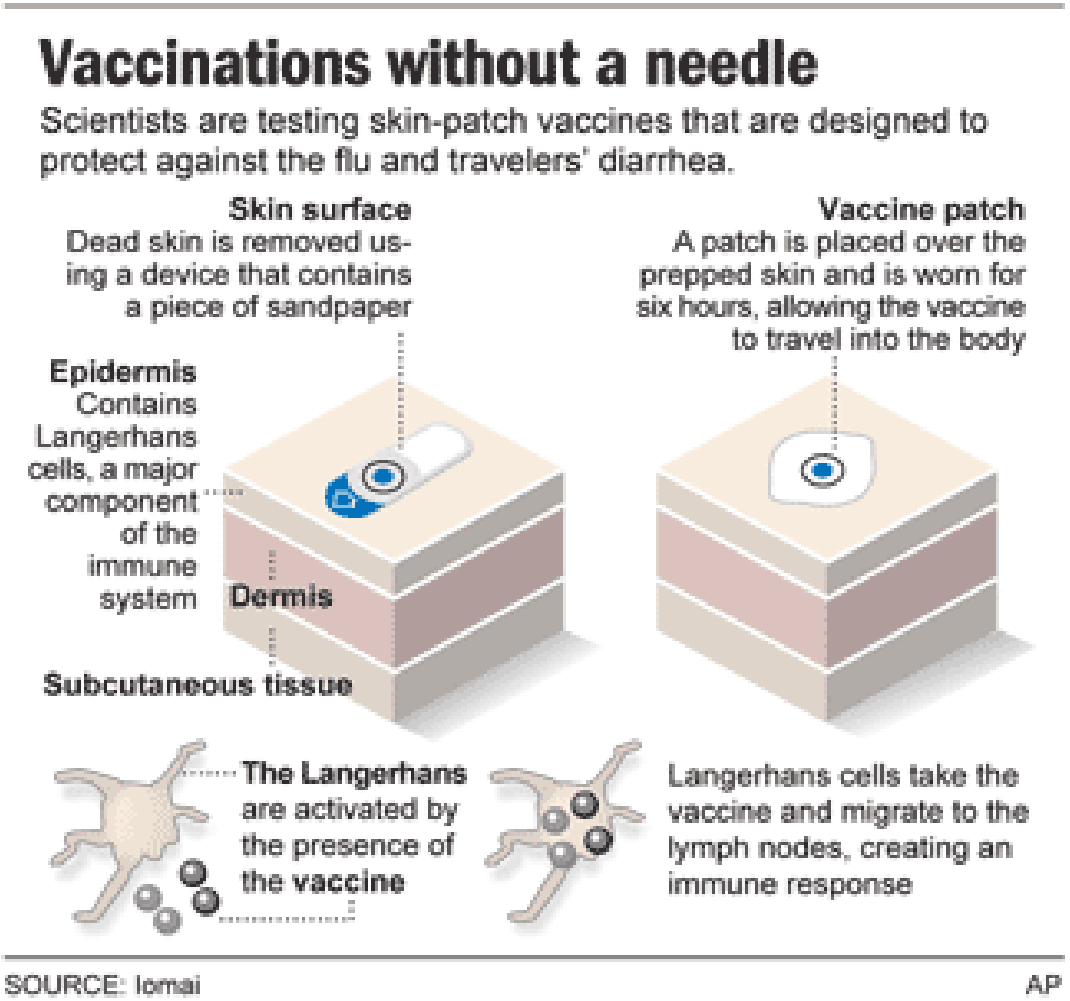
- Haziran 2015 te ACIP önerisi

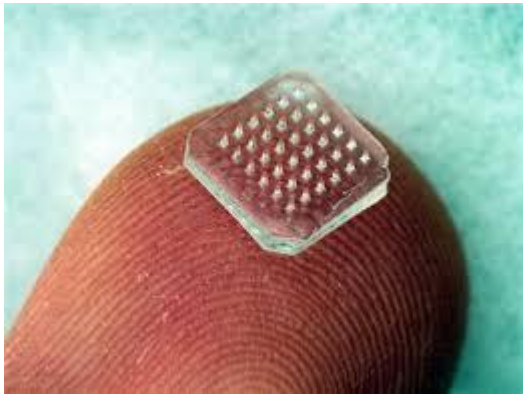
≥ 10 yaş

- Fonksiyonel, anatomik aspleni
- Kompleman yetmezliği
- Serogrup b meningokok salgını olan durumlarda

Aşı uygulama güçlüklerini aşmak

İğnesiz aşılama (needle free vaccination)





PATCH VACCINE

- Nikotin ve hormon tedavilerinde kullanılan mikro iğne içeren patch yöntemi aşı uygulaması için denenmektedir.

Oral veya nazal sprey aşılar

- Canlı atenue influenza aşısı nazal sprey şeklinde uygulanan bir aşıdır.
- Kızamık, kızamıkçık, kabakulak gibi respiratuvar virüsler ve hepatit B nazal aşıları deneme aşamasındadır.

Oral veya nazal sprey aşılar

- HBsAg antijenini kodlayan genin *Salmonella* bakterisine integrasyonu sonucu hazırlanan oral rekombinant bir hepatit B aşısı üzerinde çalışılmaktadır.

EXPERT OPINION

Intranasal formulations: promising strategy to de vaccines

Peggy Riese, Priya Sakthivel, Stephanie Trittel & Carlos
†*Helmholtz Centre for Infection Research, Department of Vaccinology an Braunschweig, Germany*

Introduction: The emergence of new diseases and the lac against numerous nontreatable pathogens require the d vaccination strategies. To date, only a few mucosal approved for humans. This was in part due to i) the u vaccines, which are not suitable for certain groups of indi cerns derived from implementation in humans of son iii) the poor stability, absorption and immunogenicity by the mucosal route and iv) the limited number of avai overcome the bottlenecks associated with mucosal ant advances make feasible the development of efficacio with adequate safety profile. Thus, currently intranasal attractive and valid alternative to conventional vaccines

Areas covered: The present review is focused on the pote of market-approved intranasal vaccines and promising ca clinical investigations. Furthermore, emerging strategies t tlenecks including efficient breaching of the mucosal ba cerns by implementation of new adjuvants and delivery s

Expert opinion: The rational design of intranasal vaccine understanding of the anatomic, physicochemical and ba nasal mucosa, as well as the molecular mechanisms gover the local innate and adaptive immune system. This wou knowledge to establish effective approaches to deliver va the mucosal barrier, supporting the stimulation of a lo response at both mucosal and systemic levels. Current

YENİ İNTRANAZAL AŞILAR

- Trivalan inaktif influenza virus aşısı (2006-2007 formulation; A/H1N1,A/H3N2) sprey aşı, tip 1 interferon adjuvanlı
- Canlı atenue influenza virus aşısı (Flumist)

  (İnfluenza virus A/H1N1,A/H3N2, B/Yamagata/16/88, B/Victoria/2/87) ,sprey aşı ,TLR-3 agonist (PolyI:C) adjuvanlı

YENİ İNTRANAZAL AŞILAR

- İnfluenza virus aşısı (Flumist)

  (A/H1N1,A/H3N2, B/Yamagata/16/88, B/Victoria/2/87,sprey aşı ,adjuvansız

YENİ İNTRANAZAL AŞILAR

- İnaktif avian influenza aşısı (GelVac),H5N1 , adjuvansız
- Canlı atenue avian influenza virus aşısı (H7N9A/Anhui/13, subvirionH7N9)sprey aşı,adjuvansız
- Canlı atenue avian influenza virus aşısı (İnfluenza A/H7N3),sprey aşı, adjuvansız

YENİ İNTRANAZAL AŞILAR

- Canlı atenue rekombinant parainfluenza tip 3 aşısı, damla aşı, adjuvansız
- Canlı adenovirus aşısı (Ad4H5Vtn vaccine), sprey aşı, adjuvansız

Çok Sayıda Enjeksiyonu Azaltmak

- Kombine aşılar
- Tek doz aşılar

HBsAg nin mikropartikül içinde kapsüllendirilmiş formu farklı zamanlarda salınarak çoklu dozlama gibi antijenik uyarıyı sağlayabilmektedir.

Tedavi güçlükleri olan hastalıklar için yeni aşılar

- Hepatit C
- İmmünsüpresif hastalıkların önemli fırsatçı virüsleri HSV, CMV ve EBV
- HIV
- Çok ilaca dirençli tüberkülozun global tehdit oluşturması nedeniyle yeni tüberküloz aşıları

Ciddi ve öldürücü potansiyeli olan hastalıklara karşı koruyucu aşılar geliştirmek

- Ebola hastalığı
- Pandemi potansiyeli olan avian influenza

EBOLA AŞISI FAZ 3

rVSV-EBOV (ZEBOV)
NewLink Genetics and Merck Vaccines USA
WHO,Guinea
US CDC ve MOH Sierra Leone

ChAd3-ZEBOV
GlaxoSmithKline ve PHAC, Liberia

Johnson & Johnson,
Ad26-EBOV and MVA-EBOV. Faz1
Novavax, rekombinant protein Guinea 2014 Ebola virus ,faz 1
Avustralya

products in development include an oral adenovirus platform (Vaxart), an alternative vesicular stomatitis virus candidate (Profectus Biosciences), an alternative recombinant protein (Protein Sciences), a DNA vaccine (Inovia) and a recombinant rabies vaccine (Jefferson University) among others.

Which vaccines are being tested and where?

Product / Company	Phase	Trial Location	Dates
ChAd3-ZEBOV GlaxoSmithKline and PHAC	Phase I	By VRC at NIH, USA	September 2014
		By Oxford University in the UK	
		By CVD in Mali	October 2014
		At the University of Lausanne, Lausanne, Switzerland	
rVSV-ZEBOV NewLink Genetics and Merck Vaccines USA	Phase I	By WRAIR in the US	October 2014
		By NIAID in the US	
		By CTC North GmbH in Hamburg, Germany	November 2014
		At Albert Schweitzer Hospital in Lambarene, Gabon	
		At the University of Geneva, Geneva, Switzerland	
		At the IWK Health Center, Halifax, Canada	
		By KEMRI Wellcome Trust in Kilifi, Kenya	December 2014
Ad26-EBOV and MVA-EBOV Johnson & Johnson and Bavarian Nordic	Phase I	By University of Oxford in the UK and NIAID, USA	January 2015
		TBD, Kenya	Second half of 2015
		TBD, Uganda	
		TBD, United Republic of Tanzania	
Recombinant protein Ebola vaccine candidate Novavax	Phase I	Australia	February 2015
ChAd3-ZEBOV	Phase II	TBD, Cameroon	Second half of

ChAd3-ZEBOV GlaxoSmithKline and PHAC	Phase II	TBD, Cameroon TBD, Ghana TBD, Mali TBD, Nigeria TBD, Senegal	Second half of 2015
VSV-EBOV NewLink Genetics and Merck Vaccines USA	Phase III	By WHO, Médecins Sans Frontiéres (MSF) and Government of Guinea in Conakry, Guinea	April 2015 – Ring vaccination trial design. As of 17 July, 103 rings comprising approximately 4 000 volunteers have been vaccinated.
VSV-EBOV	Phase III	By Médecins Sans Frontiéres (MSF), WHO and Government of Guinea in Conakry, Guinea	March 2015 – A vaccine trial for front line workers only. As of 19 June, more than 800 volunteers have been vaccinated. The target number is 1 200.
ChAd3-ZEBOV GlaxoSmithKline and PHAC and VSV-EBOV NewLink Genetics and Merck Vaccines USA	Phase II/III	By US NIH and MOH Liberia in Monrovia, Liberia	March 2015 – Randomized control trial design As of 30 April, Phase II enrollment of 1 500 volunteers in Liberia was completed.
VSV-EBOV NewLink Genetics and Merck Vaccines USA	Phase III	By US CDC and MOH Sierra Leone in Freetown, Sierra Leone	April 2015 – Cluster based, non-blinded, individually randomized trial design.

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Phase 1 Trials of rVSV Ebola Vaccine in Africa and Europe — Preliminary Report

S.T. Agnandji, A. Huttner, M.E. Zinser, P. Njuguna, C. Dahlke, J.F. Fernandes, S. Yerly, J.-A. Dayer, V. Kraehling, R. Kasonta, A.A. Adegnika, M. Altfeld, F. Auderset, E.B. Bache, N. Biedenkopf, S. Borregaard, J.S. Brosnahan, R. Burrow, C. Combescure, J. Desmeules, M. Eickmann, S.K. Fehling, A. Finckh, A.R. Goncalves, M.P. Grobusch, J. Hooper, A. Jambrecina, A.L. Kabwende, G. Kaya, D. Kimani, B. Lell, B. Lemaître, A.W. Lohse, M. Massinga-Loembe, A. Matthey, B. Mordmüller, A. Nolting, C. Ogwang, M. Ramharter, J. Schmidt-Chanasit, S. Schmiedel, P. Silvera, F.R. Stahl, H.M. Staines, T. Strecker, H.C. Stubbe, B. Tsofa, S. Zaki, P. Fast, V. Moorthy, L. Kaiser, S. Krishna, S. Becker, M.-P. Kieny, P. Bejon, P.G. Kremsner, M.M. Addo, and C.-A. Siegrist*

Rekombinant Veziküler stomatit virüsü Zaire ebola virusu

ABSTRACT

BACKGROUND

The replication-competent recombinant vesicular stomatitis virus (rVSV)–based vaccine expressing a *Zaire ebolavirus* (ZEBOV) glycoprotein was selected for rapid safety and immunogenicity testing before its use in West Africa.

The authors' full names, academic degrees, and affiliations are listed in the Appendix. Address reprint requests to Dr. Addo at the University Medical Center

Kuş İnfluenza virus aşıları

PRE PANDEMİK HAZIRLIK

- H5N1
- H5N3
- H9N2
- H7N9

HCV

TERAPÖTİK AŞILAR

ChronVac-C

- DNA bazlı aşı
- HCV NS3/4A proteinini kodlayan gen hastanın iskelet kasına DNA elektroporasyon yöntemi ile veriliyor.

HCV

TERAPÖTİK AŞILAR

GI-5005

- HCV Kor ve NS3 proteinlerini içeren T hücre aşısı
- Peg-interferonla birlikte veriliyor.

TG4040

- HCV NS3,NS4 VE NS5 B proteinlerinin eksprese edildiği rekombinant pox virus aşısı

HCV

KORUYUCU AŞILAR

Rekombinant HCV subunit aşıları

- HCV zarf proteinlerinin eksprese edildiği virüs benzeri partiküller T hücre özgül yanıt elde etmek üzere kullanılıyor

HCV

KORUYUCU AŞILAR

- HCV NS3-5 B poliproteinlerinin eksprese edildiği replike olmayan şempanze adenovirus ve modifie vaccinia ankara vektörünün kullanıldığı iki aşı 8 hafta aralıkla uygulanıyor, T hücre özgül yanıt hedefleniyor

HIV AŞILARI

- HIV kazanılmasını veya replikasyonunu inhibe eden humoral ve hücresel immün yanıt geliştirme hedeflenmiş
- Çoğu HIV alma riski yüksek kişilere deneniyor

  STEP çalışması,faz 2 B
- HIV subtip B gag, pol ve nef içeren adenovirus temelli HIV aşısı

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HIV AŞILARI

- **Thailand çalışması**
- Rekombinant canarypox vektör aşı (ALVAC) ve rekombinant glikoprotein 120 aşısı(AIDSVAX) birlikte
- **Hvtn 505 (dna/rad5)** , ABD
- HIV 1 DNA, rekombinant adenovirus 5 vektörlü aşı
- HİÇ BİRİ ÇOK ÜMİTLİ DEĞİL

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Yeni Tüberküloz Aşıları

Koruyucu aşılar

- *M. tuberculosis* antijen 85 A'nın vaccinia virus Ankara 'ya ekspresyonu
- Replikasyonu defektif adenovirusa *M. tuberculosis* 85A, 85B ekspresyonu
- *M. tuberculosis* antijenleri(VPM1002, rBCG30)nin BCG ye ekspresyonu
- Rekombinant subunit ve füzyon proteinleri (M72, Hybrid-1+IC31; Hybrid-1+CAF01, Hyvac4, AERAS-404 + IC-31)
- *M. tuberculosis* hücre fragmanları RUTI)
- Atenüe non-tüberküloz mycobacteria (*M. vaccae*)

Yeni Tüberküloz aşıları

Terapötik aşılar

- Hastalığın ilerlemesini önlemek
- Kısa ilaç kürleri ile hastalığın tedavisine yardımcı olmak

- Aşı çalışmalarının çoğu faz 1 aşamasında

HEPATİT B AŞISI

AŞI YANITSIZLARI İÇİN ÇABALAR

- Ek tek doz
- Ek 3 doz
- Yüksek doz aşılama
- İntradermal aşılama
- Yeni adjuvanlar
- GM-CSF le birlikte aşılama

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DOI: 10.3748/wjg.v20.i27.8998

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ISSN 1007-9327 (print) ISSN 2219-2840 (online)

TOPIC HIGHLIGHT

WJG 20th Anniversary Special Issues (9): Hepatitis B virus

Hepatitis B virus: Where do we stand and what is the next step for eradication?

Haruki Komatsu

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Received: September 20, 2013 Revised: December 9, 2013
Accepted: April 15, 2014
Published online: July 21, 2014

Abstract

Hepatitis B (HB) virus (HBV) infection, which causes liver cirrhosis and hepatocellular carcinoma, is endemic worldwide. Hepatitis B vaccines became commercially available in the 1980s. The World Health Organization recommended the integration of the HB vaccine into the national immunisation programs in all countries. HBV prevention strategies are classified into three groups: (1) universal vaccination alone; (2) universal vaccination with screening of pregnant women plus HB immune globulin (HBIG) at birth; and (3) selective vaccination with screening of pregnant women plus HBIG at birth. Most low-income countries have adopted universal vaccine programs without screening of pregnant women. However, HB vaccines are not widely used in low-income countries. The Global Alliance for Vaccine and Immunization was launched in 2000, and by 2012, the global coverage of a three-dose HB vaccine had increased to 79%. The next challenges are to further increase the coverage rate, close the gap between recommendations and routine practices, approach high-risk individuals, screen and treat chronically infected individuals, and prevent breakthrough infections. To eradicate HBV infections, strenuous efforts are required to overcome socioeconomic barriers to the HB to complete.

Key words: Cancer; Global Alliance for Vaccine and Immunization; Hepatitis B immune globulin; Hepatitis B virus; Hepatocellular carcinoma; Selective vaccination; Universal vaccination; World Health Organization

Core tip: Hepatitis B (HB) vaccines, which are the first vaccines that have been proven to prevent cancer, have played a crucial role in preventing HB virus (HBV) infection worldwide since their development in the 1980s. In particular, the HB vaccines have been rapidly integrated into the national immunisation programs of low-income countries since the Global Alliance for Vaccine and Immunization was launched in 2000. However, we have still not eradicated HBV. More than 240 million people worldwide are carriers of HBV. The vaccine strategies, current status of HBV infection, and unresolved issues related to controlling HBV infection are discussed in this review.

Komatsu H. Hepatitis B virus: Where do we stand and what is the next step for eradication? *World J Gastroenterol* 2014; 20(27): 8998-9016 Available from: URL: http://www.wjgnet.com/1007-9327/full/v20/i27/8998.htm DOI: http://dx.doi.org/10.3748/wjg.v20.i27.8998

INTRODUCTION

According to the World Health Organization (WHO), two billion people (one-third of the global population) have been infected with the hepatitis B (HB) virus (HBV) worldwide, and more than 240 million are chronic carriers (4%-6% of the world population)[1]. Chronically

educated and trained healthcare providers), the education of women and parents, and surveillance systems to determine the impact of vaccines[120-126]. The GAVI Alliance is expected to have substantial public impacts on

has increased year after year since 2000 in the United States, the nationwide coverage was still only 61.5% in 2007[138]. These data suggest that delayed vaccinations occur frequently in high-income countries just as in low-

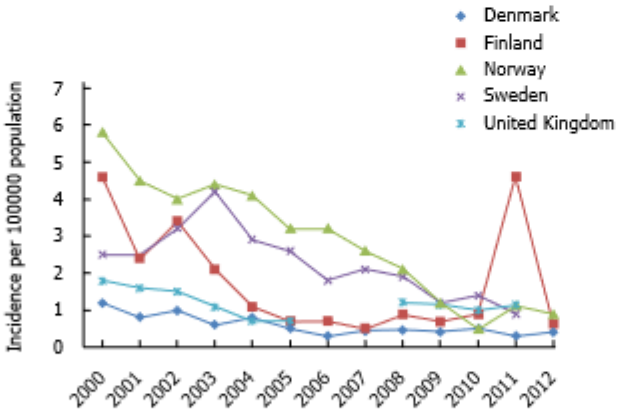

Figure 4 Incidence of acute hepatitis B in northern European countries with selective vaccination (◆: Denmark; ■: Finland; ▲: Norway; ×: Sweden; ✳: United Kingdom). The data for 2006 and 2007 in the United Kingdom were not available.

income countries.

The situation for programs providing for the screening of pregnant women plus HBIG, which is implemented in high-income countries, is more complicated. The screening rate of pregnant women varies from 96.5% to

were 6% to 39% (MSM, drug users, commercial sex workers, and heterosexuals; > three doses) in the Netherlands in 2007, 50.5% (> one dose), and 41.8% (> three doses) in the United States in 2009, and 22% (prisoners; > one dose) in England and Wales in 2010[86,152,153]. Even among healthcare workers, the coverage rate of the HB vaccine was 84.9% in Belgium, 85.3% in Italy, 87.5% in Poland, 88.0% in Spain, 93.0% in the United Kingdom, and 75.0% in the United States[154,155]. Household exposure and close family contacts of HBV carriers are another high-risk group. According to a survey of European countries, 90% of the countries with a universal vaccination program and all of the countries with a selective vaccination program recommended HB vaccination for individuals with close family contacts with HBV carriers[77]. However, the vaccine coverage was found to be only 25%-34% among the household contacts of HBV carriers in Italy, the United Kingdom, and Denmark[142,156,157].

If high-risk adults are not identified or approached, the health of the children in the area will continue to be threatened. This is a particularly serious problem in the countries implementing selective vaccination policies, where almost all children are susceptible to HBV. Thus,

HBV S KAÇAK MUTANTLARI

- Hepatit b kaçak mutantlarının aşılanmışlarda akut hepatit B ye yol açabilir
- Taiwan çalışması
- HBV S mutant prevalansı <15 yaş çocuklarda
- 1984 -2004
- % 0.67 den 0.10 e ve and HBsAg % 9.6 dan %0.5e azalmış

HEPATİT B AŞI YANITSIZLARI

- Standart şema ile yanıtsızlarda
- 4. doz %39-91
- Ek 3 doz % 61-100 koruma
- Hepatit A ve B Kombine aşı ile ek iki doz % 95 koruma
  hepatit A komponenti adjuvan gibi etki ediyor.

- İntradermal uygulama dermal keratinosit Langerhan's hücrelerini uyararak etkili lenfosit cevabı geliştirebilir.
  Ancak meta analiz sonuçları IM uygulama ile ile eşit yanıt gösteriyor

HEPATİT B AŞI YANITSIZLARI

- Yeni adjuvanların kullanılması
- AS04 (bakteri polisakkarid fragmanı ve aluminyum) içeren hepatit B
- Standart aşı şeması ile GM-CSF(sitokin adjuvanı) uygulama yüksek doz aşı kadar etkin

REVIEW

Yeni hedef kitle gebeler

Maternal immunization as a strategy to decrease susceptibility to infection in newborn infants

Benjamin Lindsey[a], Beate Kampmann[a,b], and Christine Jones[a,c]

f review
n from the success of maternal tetanus vaccination, recent research has shown that other ven in pregnancy can protect against vaccine-preventable infections in early infancy. This outline these recent developments and highlight the impact on current clinical practice.

dings
mmunization provides protection to the newborn through the transfer of vaccine-induced IgG placenta, a process that is affected by multiple variables. The safety of newly recommended vaccines has been further tested in recent studies. Maternal vaccination against influenza and is is recommended in the United Kingdom and United States, with new studies indicating their cy. A number of additional maternal vaccines are also in the pipeline, which could be used to ombat neonatal infection. Recent research findings have highlighted some of the reasons for the poor uptake of current recommendations among pregnant women.

Summary
Tetanus, influenza and pertussis vaccines are now recommended for use during pregnancy, with new vaccines, such as group B streptococcus and respiratory syncytial virus, being developed to prevent important neonatal infections in the future.

Keywords
maternal immunization, neonatal infection, pregnancy, vaccination

INTRODUCTION

The concept of maternal immunization has been established for some time; however, there has been recent renewed interest and focus in maternal immunization as a means to protect young infants from vaccine-preventable infections. During early infancy, newborns are partially protected through placental transfer of maternal immunoglobulin. Maternal levels of specific immunoglobulin are however frequently suboptimal and therefore do not necessarily provide adequate protection to the infant [1]. The aim of maternal vaccination is to enhance maternal antibody levels against particular infections, so that a protective level of antibody is transferred to the infant. It is an attractive strategy as it can provide protection against infectious diseases to the mother, her developing fetus and the newborn infant. The firm proof-of-principle was best demonstrated by the success of maternal tetanus vaccination, which is part of routine care in many countries. This review provides an update of maternal vaccination, describing the principles underlying maternal immunization, potential concerns and challenges, and focuses on vaccines that are currently recommended for all pregnant women. We finally outline some future applications.

MECHANISMS UNDERLYING THE PRINCIPLES OF MATERNAL IMMUNIZATION

Placental transfer of maternal immunoglobulin is restricted to IgG and confers short-term passive immunity to the newborn infant. Maternal IgA

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Curr Opin Infect Dis 2013, 26:248–253
DOI: 10.1097/QCO.0b013e3283607a58

YENİDOĞANI KORUMAK İÇİN GEBE AŞILAMASI

- Tdap
- İnfluenza
- ABD ve İngiltere gebe programında
- WHO gebeye influenza aşısı öneriyor
- Türkiye’de gebeye Td uygulaması devam ediyor

Soğuk zincir problemi

- Çiçek aşısının yüksek ısılarda bozulmaması çiçeğin eradikasyonunu sağlayan en önemli neden
- 2010 da Oxford üniversitesi Jenner enstitüsünde yapılan bir çalışmada seker kristalleri kaplanmış filtreli bir membrana viral partiküller bağlanarak ,113° F sıcaklıkta 6 ay immünizan gücünü koruyarak saklanma sağlanmış

HASTALIK KORKUSU VE AŞI KORKUSU

Toplumsal tepkiler

Aşılama oranları, hastalık epidemiyolojisini etkilemektedir. Bu da aşı oranlarını etkilemektedir.

Hastalığa yakalanma korkusu	**Çok fazla**	**Yok**	**Yok**
Aşılarla ilgili korku	**Yok**	**Yok**	**Güvensizlik ve korku**
Aşılamaya	**Yoğun istek**	**İstek yoktur İlgisizlik vardır.**	**Red**

HASTALIK KORKUSUNUN AŞI KORKUSUNU AŞMASI

Hastalığa yakalanma korkusu	**Çok fazla**	**Yok**	**Yok**
Aşılarla ilgili korku	**Yok**	**Yok**	**Güvensizlik ve korku**
Aşılamaya	**Yoğun istek**	**İstek yoktur İlgisizlik vardır.**	**Red**