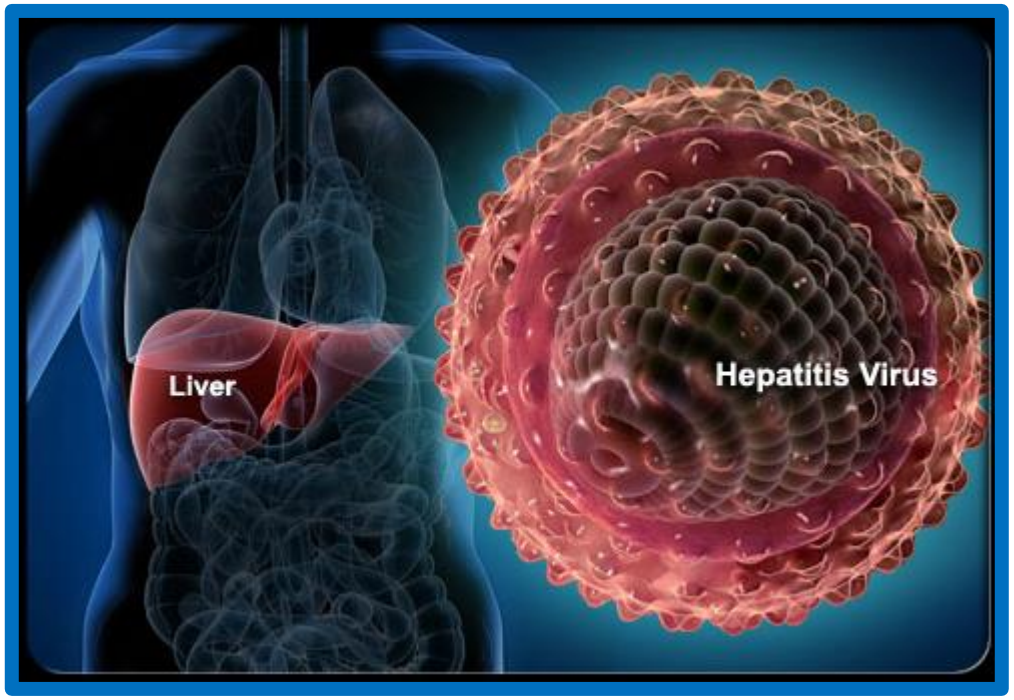

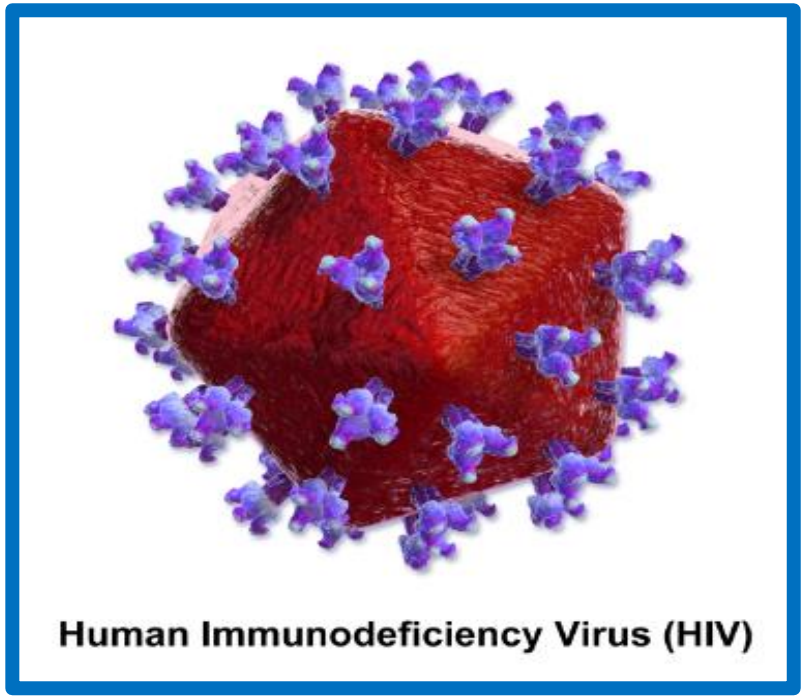

HIV-Pozitif Akut Hepatit B Olgu Sunumu

Elif SARGIN ALTUNOK

Gaziosmanpaşa Taksim EAH

11.05.2018

Teşekkür ederim

- Uzm.Dr.Arzu Kantürk
- Uzm.Dr.Taner Yıldırmak

J Hepatol. 2006;44(1 Suppl):S6-9. Epub 2005 Nov 21.

Epidemiology of viral hepatitis and HIV co-infection.

Alter MJ[1].

Author information

Abstract

Worldwide, hepatitis B virus (HBV) accounts for an estimated 370 million chronic infections, hepatitis C virus (HCV) for an estimated 130 million, and HIV for an estimated 40 million. In HIV-infected persons, an estimated 2-4 million have chronic HBV co-infection and 4-5 million have HCV co-infection. HBV, HCV and HIV share common routes of transmission, but they differ in their prevalence by geographic region and the efficiency by which certain types of exposures transmit them. Among HIV-positive persons studied from Western Europe and the USA, chronic HBV infection has been found in 6-14% overall, including 4-6% of heterosexuals, 9-17% of men who have sex with men (MSM), and 7-10% of injection drug users. HCV infection has been found in 25-30% of HIV-positive persons overall; 72-95% of injection drug users, 1-12% of MSM and 9-27% of heterosexuals. The characteristics of HIV infected persons differ according to the co-infecting hepatitis virus, their epidemiologic patterns may change over time, and surveillance systems are needed to monitor their infection patterns in order to ensure that prevention measures are targeted appropriately.

- Dünya genelinde HIV infeksiyonu olan yaklaşık 40 milyon insanın, 2-4 milyonu HBV ile infektedir
  - HBV-HIV Koinfeksiyonu, **ortak bulaşma yollarından dolayı** yaygın görülmektedir

- HBV koinfeksiyonu olan HIV infekte kişilerin prevelansı coğrafi bölgelere göre değişiklik göstermektedir
  - **Batı Avrupa ve ABD'nde HIV pozitif bireyler arasında Kronik HBV infeksiyonu oranı %6-14 olarak bildirilmiştir**

Epidemiol Infect. 2018 Apr 11:1-11. doi: 10.1017/S0950268818000766. [Epub ahead of print]

HIV and viral hepatitis coinfection analysis using surveillance data from 15 US states and two cities.

Bosh KA[1], Coyle JR[2], Hansen V[3], Kim EM[3], Speers S[4], Comer M[5], Maddox LM[5], Khuwaja S[6], Zhou W[6], Jatta A[7], Mayer R[7], Brantley AD[8], Muriithi NW[8], Bhattacharjee R[9], Flynn C[9], Bouton L[10], John B[10], Keusch J[2], Barber CA[11], Sweet K[11], Ramaswamy C[12], Westheimer EF[12], VanderBusch L[13], Nishimura A[14], Vu A[14], Hoffman-Arriaga L[15], Rowlinson E[15], Carter AO[16], Yerkes LE[16], Li W[17], Reuer JR[17], Stockman LJ[18], Tang T[19], Brooks JT[1], Teshale EH[20], Hall HI[1].

⊕ Author information

Abstract

Coinfection with human immunodeficiency virus (HIV) and viral hepatitis is associated with high morbidity and mortality in the absence of clinical management, making identification of these cases crucial. We examined characteristics of HIV and viral hepatitis coinfections by using surveillance data from 15 US states and two cities. Each jurisdiction used an automated deterministic matching method to link surveillance data for persons with reported acute and chronic hepatitis B virus (HBV) or hepatitis C virus (HCV) infections, to persons reported with HIV infection. Of the 504 398 persons living with diagnosed HIV infection at the end of 2014, 2.0% were coinfected with HBV and 6.7% were coinfected with HCV. Of the 269 884 persons ever reported with HBV, 5.2% were reported with HIV. Of the 1 093 059 persons ever reported with HCV, 4.3% were reported with HIV. A greater proportion of persons coinfected with HIV and HBV were males and blacks/African Americans, compared with those with HIV monoinfection. Persons who inject drugs represented a greater proportion of those coinfected with HIV and HCV, compared with those with HIV monoinfection. Matching HIV and viral hepatitis surveillance data highlights epidemiological characteristics of persons coinfected and can be used to routinely monitor health status and guide state and national public health interventions.

- 2014 yılı sonunda tanı konmuş **HIV enfeksiyonu olan 504 398 kişi**
- **% 2'i HBV ile koinfekte**

- HIV ve HBV ile infekte kişilerin büyük bir kısmı, HIV monoinfeksiyonuna kıyasla **erkek ve siyah Amerikalılar**

J Infect Dis. 2003 Aug 15;188(4):571-7. Epub 2003 Aug 5.

Prevalence of chronic hepatitis B and incidence of acute hepatitis B infection in human immunodeficiency virus-infected subjects.

Kellerman SE[1], Hanson DL, McNaghten AD, Fleming PL.

⊕ Author information

Abstract

We determined incidence and risk factors for acute and chronic hepatitis B virus (HBV) infection and HBV vaccination rates among human immunodeficiency virus (HIV)-infected subjects from the Adult/Adolescent Spectrum of HIV Disease Project, during 1998-2001. Among 16,248 HIV-infected patients receiving care, the incidence of acute HBV was 12.2 cases/1000 person-years (316 cases), was higher among black subjects (rate ratio [RR], 1.4; 95% confidence interval [CI], 1.0-2.0), subjects with alcoholism (RR, 1.7; 95% CI, 1.2-2.3), subjects who had recently injected drugs (RR, 1.6; 95% CI, 1.1-2.4), and subjects with a history of AIDS-defining conditions (RR, 1.5; 95% CI, 1.2-1.9) and was lower in those taking either antiretroviral therapy (ART) with lamivudine (RR, 0.5; 95% CI, 0.4-0.6), ART without lamivudine (RR, 0.5; 95% CI, 0.3-0.7), or >/=1 dose of HBV vaccine (14% of subjects) (RR, 0.6; 95% CI, 0.4-0.9). Prevalence of chronic HBV was 7.6% among unvaccinated subjects. HBV rates in this population were much higher than those in the general population, and vaccination levels were low. HBV remains an important cause of comorbidity in HIV-infected persons, but ART and vaccination are associated with decreased disease.

PMID: 12898445 DOI: 10.1086/377135

- 1998-2001 yılları arasında **HIV infeksiyonu olan 16,248 kişi**

- **Akut HBV infeksiyonu ‘316 olgu’**
  - İnsidans dansitesi 12,2 olgu /1000 kişi yılı

J Infect Dis. 2003 Aug 15;188(4):571-7. Epub 2003 Aug 5.

Prevalence of chronic hepatitis B and incidence of acute hepatitis B infection in human immunodeficiency virus-infected subjects.

Kellerman SE[1], Hanson DL, McNaghten AD, Fleming PL.

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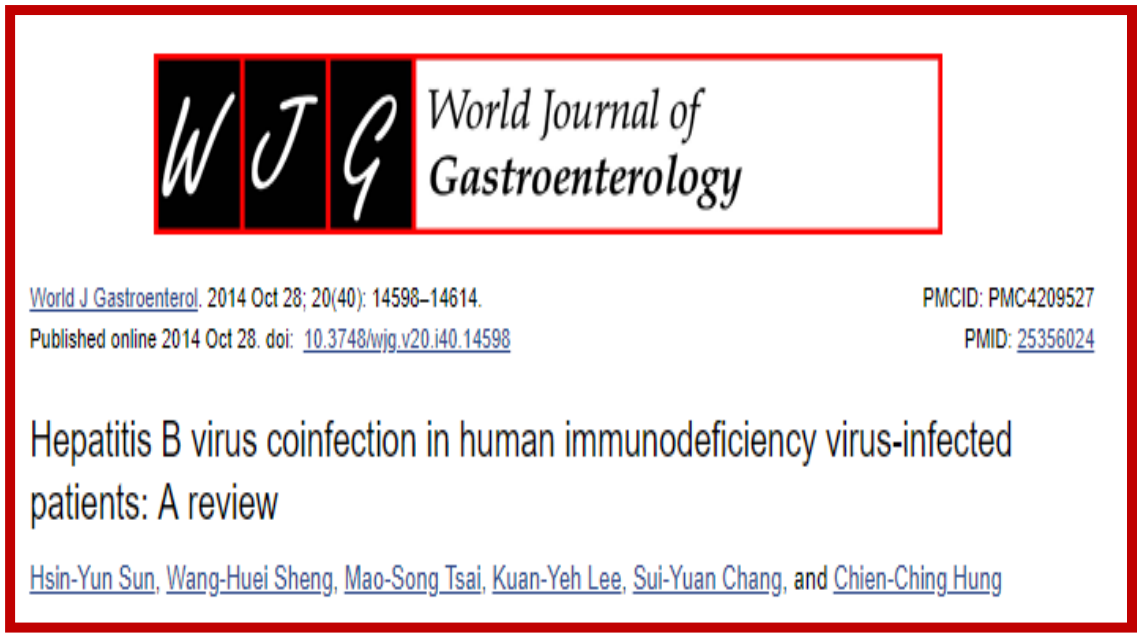
Abstract

We determined incidence and risk factors for acute and chronic hepatitis B virus (HBV) infection and HBV vaccination rates among human immunodeficiency virus (HIV)-infected subjects from the Adult/Adolescent Spectrum of HIV Disease Project, during 1998-2001. Among 16,248 HIV-infected patients receiving care, the incidence of acute HBV was 12.2 cases/1000 person-years (316 cases), was higher among black subjects (rate ratio [RR], 1.4; 95% confidence interval [CI], 1.0-2.0), subjects with alcoholism (RR, 1.7; 95% CI, 1.2-2.3), subjects who had recently injected drugs (RR, 1.6; 95% CI, 1.1-2.4), and subjects with a history of AIDS-defining conditions (RR, 1.5; 95% CI, 1.2-1.9) and was lower in those taking either antiretroviral therapy (ART) with lamivudine (RR, 0.5; 95% CI, 0.4-0.6), ART without lamivudine (RR, 0.5; 95% CI, 0.3-0.7), or >/=1 dose of HBV vaccine (14% of subjects) (RR, 0.6; 95% CI, 0.4-0.9). Prevalence of chronic HBV was 7.6% among unvaccinated subjects. HBV rates in this population were much higher than those in the general population, and vaccination levels were low. HBV remains an important cause of comorbidity in HIV-infected persons, but ART and vaccination are associated with decreased disease.

PMID: 12898445 DOI: 10.1086/377135

Akut HBV Risk faktörleri;

- Zenci ırk, alkol bağımlılığı, iv ilaç bağımlılığı
- Öncesinde AIDS'e bağlı fırsatçı infeksiyon olması



World Journal of Gastroenterology

World J Gastroenterol. 2014 Oct 28; 20(40): 14598–14614.
Published online 2014 Oct 28. doi: 10.3748/wjg.v20.i40.14598
PMCID: PMC4209527
PMID: 25356024

Hepatitis B virus coinfection in human immunodeficiency virus-infected patients: A review

Hsin-Yun Sun, Wang-Huei Sheng, Mao-Song Tsai, Kuan-Yeh Lee, Sui-Yuan Chang, and Chien-Ching Hung

Best Practice & Research Clinical Gastroenterology 31 (2017) 311–320

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journal homepage: https://ees.elsevier.com/ybega/default.asp

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9

Management of hepatitis B in special populations

Kali Zhou, Norah Terrault*

Division of Gastroenterology/Hepatology, University of California San Francisco, USA

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Koinfekte hastalarda HBV'e bağlı karaciğer hastalığının seyrine bakıldığında;

- Akut HBV infeksiyondan sonra **kronikleşme riski daha yüksek**
- CD4 sayısı düşmesiyle, HBV reaktivasyonu ve anti-HBs kaybı olasılığı artmakta
- Siroz, son dönem karaciğer hastalığı, dekompanzasyon ve HCC daha sık

Volume 48, Issue 12
15 June 2009

Impact of Hepatitis B Virus Infection on the Progression of AIDS and Mortality in HIV–Infected Individuals: A Cohort Study and Meta–Analysis

FREE

Georgios K. Nikolopoulo, Dimitrios Paraskevis, Eleni Hatzitheodorou, Zissis Moschidis, Vana Sypsa, Xenophon Zavitsanos, Victoria Kalapothaki, Angelos Hatzakis ✉

Clinical Infectious Diseases, Volume 48, Issue 12, 15 June 2009, Pages 1763–1771, https://doi.org/10.1086/599110

<u>HBV'nin HIV infeksiyonunun doğal seyri üzerine etkisi ise tartışmalı;</u>

- HBV koinfeksiyonu, HIV infeksiyonunda genel mortaliteyi artırıyor
- HBV, HIV infeksiyonunun immunolojik ve klinik ilerlemesini hızlandırıyor???
- HBV, ART'nin hepatotoksisite riskini artırıyor

AIDS. 2017 Sep 24;31(15):2035-2052. doi: 10.1097/QAD.0000000000001574.

HIV-hepatitis B virus coinfection: epidemiology, pathogenesis, and treatment.

Singh KP[1], Crane M, Audsley J, Avihingsanon A, Sasadeusz J, Lewin SR.

⊕ **Author information**

Abstract

: HIV infection has a significant impact on the natural history of chronic hepatitis B virus (HBV) infection, with increased levels of HBV DNA, accelerated progression of liver disease and increased liver-associated mortality compared with HBV monoinfection. Widespread uptake and early initiation of HBV-active antiretroviral therapy has substantially improved the natural history of HIV-HBV coinfection but the prevalence of liver disease remains elevated in this population. In this paper, we review recent studies examining the natural history and pathogenesis of liver disease and seroconversion in HIV-HBV coinfection in the era of HBV-active antiretroviral therapy and the effects of HIV directly on liver disease. We also review novel therapeutics for the management of HBV with a particular emphasis on clinical strategies being developed for an HBV cure and an HIV cure and their impact on HIV-HBV coinfected individuals.

PMID: 28692539 PMCID: PMC5661989 [Available on 2018-09-24] DOI: 10.1097/QAD.0000000000001574

- **HIV-HBV koinfeksiyonu;**
  - Daha yüksek HBV DNA seviyeleri
  - Hızlı ilerleyen karaciğer hastalığı
  - HBV monoinfeksiyonuna kıyasla artmış karaciğer ilişkili mortalite

30 Yaşında Erkek Hasta

- **Şikayeti:** Halsizlik, yorgunluk, karın ağrısı, bulantı, kusma, baş dönmesi, idrar renginde koyulaşma
- **Hikayesi:** Hastanın mevcut şikayetleri bir ay önce başlamış
- Bu şikayetler ile üç gün önce gittiği bir merkezde yapılan tetkiklerinde karaciğer enzimlerinde yükseklik tespit edilmesi üzerine dahiliye servisine yatırılmış
- Buradaki takipleri sırasında yapılan tetkiklerinde HBs Ag pozitifliği tespit edilmesi üzerine hasta taburcu edilerek Enfeksiyon Hastalıkları Kliniğine yönlendirilmiş

Özgeçmiş;

- Bekar, ilkokul mezunu, tekstil işinde çalışıyor
- 15 yıldır 5 adet/gün sigara içiyor, alkol kullanımı yok
- Bilinen bir hastalığı yok
- Kilo almak için 1,5 aydır protein, vitamin ve mineral karışımı bitkisel bir ilaç kullanıyor
- Seyahat öyküsü yok

Fizik Muayene;

- Genel durumu iyi, bilinci açık, koopere ve oryante
- Ateş 36.6 ºC, nabız 76/dk ve ritmik, solunum 20/dk, tansiyon 90/60 mmHg,
- Kilo:50 kg Boy: 170 cm
- Baş boyun muayenesinde skleralar ikterik görünümde
- Sağ aksiller bölgede 1*1 cm boyutlarında, bilateral inguinal bölgede 0,5*0,5 cm boyutlarında lenfadenopatileri mevcut
- Batın muayenesinde karaciğer kot altı 2 parmak palpabl

- Diğer sistem muayenelerinde özellik yok

Laboratuvar Bulguları; 05.09.2014

Glukoz	78 mg/dL	**ALP**	**133 U/L**
Kreatinin	0.7 mg/dL	**Gama GT**	**84 U/L**
Total bilirubin	**4.4 mg/dL**	LDH	334 U/L
Direkt bilirubin	**3.5 mg/dL**	**CK**	**498 U/L**
AST	**1067 U/L**	**CK-MB**	**42 U/L**
ALT	**1535 U/L**		
Total protein	6.6 g/dL		
Albumin	4.2 g/dL		

Laboratuvar Bulguları; 05.09.2014

Lökosit	4950 /µL	CRP	3.4 mg/L (0-5)
Periferik yayma	%57 PNL	Sedimentasyon	5 mm/saat
	%29 Lenfosit		
	%13 Monosit		
	%0.8 Eozinofil	PT	15.8 sec
Hemoglobin	15.4 g/dL	PT	68 %
Hemotokrit	47.4 %	INR	1.24
Trombosit	196000 /µL	APTT	32.4 sn

Laboratuvar Bulguları; 05.09.2014

HBsAg	**Pozitif**	Anti HCV	Negatif
Anti HBs	Negatif	Anti HAV IgM	Negatif
HBeAg	**Pozitif**	**Anti HAV Total**	**Pozitif**
Anti HBe	Negatif	**Anti HIV**	*
Anti HBc IgM	**Pozitif**	Anti Delta total	Negatif
Anti HBc Total	**Pozitif**		
		Anti Toxoplazma IgM	Negatif
Anti CMV IgM	Negatif	Anti Toxoplazma IgG	Negatif
Anti CMV IgG	**Pozitif**	Varisella Zoster IgM	Negatif
Anti Rubella IgM	Negatif	Varisella Zoster IgG	Pozitif
Anti Rubella IgG	**Pozitif**	VDRL, TPHA	Negatif

Diğer tetkikleri; 05.09.2014

- EKG: Normal
- PA AC: Normal
- TİT: Rengi koyu, pH 7.5
- Batın USG: **Hepatomegali** (159 mm), perihepatik alanda minimal serbest sıvı

TSH	1.2 mIU/mL	Ferritin	1838
Serbest T4	1.4 pg/mL	**AFP**	**42 ng/mL**

Tanı: Akut Hepatit B

- Hastada AST, ALT ve biluribin yüksekliği olması ve HBsAg+, HBeAg+, antiHBcIgM ve IgG+ olması üzerine akut hepatit B tanısıyla kliniğe yatırıldı.

- Diğer tetkiklerinde anti HAV IgM- anti HCV-, anti delta- ve anti HIV pozitif bulunması üzerine Western Blot doğrulama testi istendi.

- PPD yapıldı, 7 mm

- **Western Blot sonucu pozitif** gelen hasta, akut HBV ve HIV koinfeksiyonu tanıları ile takip edildi, HIV RNA, CD4 sayısı, HBV DNA istendi.

Akut Hepatit B; yatışının 3.gününden itibaren karaciğer enzimlerinin gerileme eğiliminde olduğu görüldü

	1.Gün	3.gün	7.gün	10.gün	3.hafta
AST, U/L	**1067**	**625**	**342**	**66**	**33**
ALT, U/L	**1535**	**904**	**624**	**231**	**51**
T.Bil, mg/dL	**4.3**		**1.9**	**1,3**	**0.75**
D.Bil, mg/dL	**3.5**			**1.1**	
INR	**1.2**	**1.3**	**1.2**		
PLT, x10^3/uL	**196**	**219**		**234**	**170**
HBsAg	Pozitif				Pozitif
Anti HBs	Negatif				Negatif
AFP, ng/mL	42				4

Clinical Practice Guidelines

CrossMark

EASL JOURNAL OF HEPATOLOGY

EASL 2017 Clinical Practice Guidelines on the management of hepatitis B virus infection☆

European Association for the Study of the Liver*

HIV co-infected patients

Recommendations

- All HIV-positive patients with HBV co-infection should start antiretroviral therapy (ART) irrespective of CD4 cell count (Evidence level II-2, grade of recommendation 1).
- HIV-HBV co-infected patients should be treated with a TDF- or TAF-based ART regimen (Evidence level I for TDF, II-1 for TAF, grade of recommendation 1).

- HBV koinfeksiyonu olan tüm HIV pozitif hastalarda CD4 sayısından bağımsız olarak ART başlanmalıdır
- HIV-HBV koinfeksiyonu olan hastalarda TDF yada TAF bazlı ART rejimleri seçilmelidir

- Yatışının 3.gününden itibaren karaciğer enzimleri gerileme eğiliminde olması
- CD4 sayısının düşük olmaması
- Antiretroviral ilaçların hepatotoksik etkisinden kaçınmak
- Hastalığın doğal seyrini görebilmek adına

Hastanın tedavisiz izlemi yapıldı

Sonuç; Karaciğer enzimleri 3. haftada normal seviyelere geldi
İzlemin 5. ayında HBsAg kaybı olduğu görüldü

	1.Gün	3.gün	3.hafta	3.ay	5.ay
AST, U/L	**1067**	625	33	16	16
ALT, U/L	**1535**	904	51	16	16
T.Bil, mg/dL	**4.3**		0.75	0,85	0,5
D.Bil	**3.5**			0,37	
INR	**1.2**	1.3			
PLT, x10^3/uL	**196**	219	170	151	134
HBsAg	**Pozitif**			**Pozitif**	**Negatif**
Anti HBs	**Negatif**			**Negatif**	**Negatif**
HBV DNA, IU/mL		**8.550,000 Genotip H**			
HIV RNA, kopya/ml		**110,000**		**4100**	
CD4, mm3		**366 (%37)**		**531 (%34)**	**432 (%40)**

Takibin 6.ayında;

02.2015: Tenofovir Disoproksil + Emtrisitabin
Lopinavir + Ritonavir

06.2015: Elvitegravir/Kobisistat/Emtrisitabin/
Tenofovir Disoproksil fumarat

Tedavinin 4.ayı;
GİS yan etkiler
nedeniyle

	Tedavi Öncesi	1.ay	3.ay	6.ay	12.Ay
AST, U/L	16				21
ALT, U/L	16				22
PLT, x10^3/uL	134				141
HBsAg	Negatif	Negatif	Negatif	Negatif	Negatif
Anti HBs	Negatif	Negatif	**Pozitif**	**Pozitif**	**Pozitif (657)**
HIV RNA, kopya/ml	4100		**Negatif**	**Negatif**	**Negatif**
CD4, mm3	432 (%40)			444	428 (%36)

Case Rep Med. 2010;2010:820506. doi: 10.1155/2010/820506. Epub 2010 Nov 7.

Acute Hepatitis B and Acute HIV Coinfection in an Adult Patient: A Rare Case Report.

Bansal R[1], Policar M, Mehta C.

Author information

Abstract

Acute HIV and acute hepatitis B coinfection is extremely rare. A 23-year-old homosexual man was admitted to our hospital with 5-day history of fever, malaise, and back pain with initial laboratory values showing severe transaminitis. The clinical picture was initially suggestive of acute viral hepatitis, which on further testing revealed acute hepatitis B and acute HIV coinfection. Although the patient was asymptomatic, a decision was made to start antiretroviral therapy. At 2-month followup, liver function tests were normal with undetectable viral loads. The early treatment of acute HIV/HBV coinfections likely contributed to eventual seroconversion with immunity to HBV in a severely immunocompromised host. To the best of our knowledge, this is the first case report of acute Hepatitis B and acute HIV coinfection and its management. In conclusion, early treatment of acute hepatitis B in immunocompromised patients may be beneficial.

PMID: 21076529 PMCID: PMC2975075 DOI: 10.1155/2010/820506

- Litaratürdeki ilk olgu olarak ABD'den 2010 yılında bildirilmiş
- Yatışının 5.gününde tenofovir/emtricitabine/lopinavir/ritonavir
- Tedavinin 2.ayında **HBsAg ve HBeAg serokonversiyonu**

Antivir Ther. 2017 Oct 12. doi: 10.3851/IMP3201. [Epub ahead of print]

Primary HIV infection in patients with acute hepatitis B: a report of two cases.

Binda F[1], Monge E[1], Simonetti FR[2], Zanchetta N[3], Galli M[1,4], Milazzo L[4], Corbellino M[4], Antinori S[1,4].

Author information

Abstract

We describe two patients admitted to our institution with a diagnosis of sexually acquired acute hepatitis B who also had underlying hyper acute HIV infection. Both individuals reported high rates of condomless sex. Antiviral therapy active against HBV and HIV was started within days after diagnosis. Treatment was well tolerated and led to a rapid control of both infections and hepatitis B surface antibody seroconversion. The efficacy and safety of contemporary antiretroviral drug combinations suggest that treatment of acute HIV infection is feasible in patients with acute hepatitis B.

- Akut HBV ve akut HIV infeksiyonu olan 2 olgu bildirilmiş
- İkisinde de antiviral tedavi iyi tolere edildi
- Her iki olguda da **HBsAg serokonversiyonu**

Acta Gastroenterol Belg. 2010 Jul-Sep;73(3):389-91.

Seroconversion of acute hepatitis B by antiretroviral therapy in an HIV-1 infected patient.

Ikeda-Kamimura M[1], Horiba M.

Author information

Abstract

A 33-year-old man with human immunodeficiency virus type1 (HIV-1) infection was admitted because of acute hepatitis B. His serum alanine aminotransferase level was 1200 IU/mL and CD4 cells count was 268/mm3. Antiretroviral therapy including tenofovir and emtricitabine, which suppresses both HIV and hepatitis B virus (HBV) replication, was initiated. The liver enzymes decreased dramatically. The viral loads of both HIV-1 and HBV were suppressed below detectable limits. Seroconversion from hepatitis B surface antigen to hepatitis B surface antibody was acquired 19 weeks later. In this case, the initiation of antiretroviral therapy with anti-HBV activity during the acute phase of hepatitis B had a favourable effect on HBV serostatus.

- HIV-1 infeksiyonu olan 33 yaşında bir erkek hastada akut hepatit B
- Tenofovir ve emtrisitabini içeren antiretroviral tedavi başlanmış
- 19. hafta **HBsAg serokonversiyonu**

Sonuç olarak;

- Literatürde bildirilen HIV, akut HBV infeksiyonu olgularına bakıldığında **antiretroviral tedavinin erken başlanmasının immüniteyi güçlendirerek serokonversiyona katkıda bulunduğu** söylenmektedir

- Bizim olgumuzda ise hastalığın doğal seyrine bakıldığında ART başlanmadan önce HBsAg serokonversiyonu olduğu görülmektedir


Teşekkür ederim