HCV/HBV KOİNFEKSİYONU

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VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

OLGU

- R.I., 53 yaşında, ♂, Konyalı
- 1988'de GİS kanamasıyla başvurduğu merkezde →Hepatit B
- 2004'te halsizlik nedeniyle başvurduğu merkezde →Hepatit C

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

OLGU

- 2004
  - HCV RNA: 7×10^6 İÜ/ml
  - HCV Genotip: GT1
  - HBsAg: Pozitif / Anti-HBs: Negatif
  - Anti-HBe: Pozitif / HBeAg: Negatif
  - HBV DNA: Negatif
  - Anti-HDV: Negatif
  - Anti-HIV: Negatif
  - Karaciğer Biyopsisi: Yok

OLGU

- Kronik hepatit C virusu genotip 1 infeksiyonu
  - Tedavi naif
  - Sirotik olmayan

- PegIFN α2b 1.5 μg/kg, SC (haftada bir)
  +
  Ribavirin (>75 kg): 2×600 mg/gün

48 hafta

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

OLGU

- 2009
  - HCV RNA: 1×10^6 İÜ/ml
  - HCV Genotip: GT1
  - HBsAg: Pozitif / AntiHBs: Negatif
  - Anti-HBe: Pozitif / HBeAg: Negatif
  - HBV DNA: Negatif
  - Anti-HDV: Negatif
  - Anti-HIV: Negatif
  - Karaciğer Biyopsisi
- Histolojik Aktivite İndeksi (HAI): 11
- Fibroz: 3

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

OLGU

- Kronik hepatit C virusu genotip 1 infeksiyonu
  - Tedavi deneyimli
  - Sirotik olmayan

- PegIFN α2a 180 μg, SC (haftada bir)

  +

  Ribavirin (>75 kg): 2×600 mg/gün

48 hafta

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

OLGU

- 2013
  - HCV RNA: 1.3×106 İÜ/ml
  - HCV Genotip: GT1b
  - HBsAg: Pozitif / Anti-HBs: Negatif
  - Anti-HBe: Pozitif / HBeAg: Negatif
  - HBV DNA: Negatif
  - Anti-HDV: Negatif
  - Anti-HIV: Negatif

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

OLGU

- Kronik hepatit C virusu genotip 1b infeksiyonu
  - PegIFN + Ribavirin tedavisine yanıtsız
  - Sirotik olmayan

- PegIFN α2a 180 μg, SC
  +
- Ribavirin (>75 kg): 2×600 mg/gün
  +
- Telaprevir 375 mg: 3x2 tablet → 12 hafta

} 48 hafta

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

OLGU

- Sağ elde döküntü
  - ☛ Birkaç günde kendiliğinden geçiyor

- Anal fisür
  - ☛ Soğuk uygulama, lokal pomad ve yağlı diyet önerisiyle klinik düzelme sağlanıyor

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

OLGU

ALT: 40 Ü/lt

AST: 49 Ü/lt

GGT: 20 Ü/lt

ALP: 57 Ü/lt

LDH: 524 Ü/lt

AFP: 3.1 ng/ml

Kreatinin: 0.6 mg/dl

INR: 1.19

Total protein: 7.6 gr/dl

Albümin: 4.1 gr/dl

Total bilirübin: 1.5 mg/dl

Trombosit: 166 000/µl

Hb: 14.3 gr/dl

Lökosit: 7 200/µl

Nötrofil: 4 100/µl

Tiroid fonksiyon testleri: Normal

Karın USG: Normal

OLGU

- Tedavi sonu
  - HCV RNA: Negatif
  - Anti-HBs: Negatif
  - Anti-HBe: Pozitif / HBeAg:Negatif
  - HBV DNA: Negatif
  - Anti-HDV: Negatif
  - Anti-HIV: Negatif
  - HBsAg: Negatif (tedaviden 1 yıl sonra)

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

OLGU

ALT: 22 Ü/lt

AST: 21 Ü/lt

GGT: 16 Ü/lt

ALP: 53 Ü/lt

LDH: 206 Ü/lt

AFP: 2.9 ng/ml

Kreatinin: 0.7 mg/dl

INR: 1.26

Total protein: 7.1 gr/dl

Albümin: 4.0 gr/dl

Total bilirübin: 0.85 mg/dl

Trombosit: 145 000/µl

Hb:15.5 gr/dl

Lökosit: 6 500/µl

Nötrofil: 3 700/µl

OLGU

*HVY
**uHVY
***TSY
****KVY

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

Epidemiyoloji

- Dünyada;
  - Yaklaşık 350-400 milyon kişi HBV taşıyıcısı
  - %75'e yakını Asya ve Batı pasifik bölgesinde yaşamakta
  - HCV infeksiyonu yaklaşık 170 milyon kişide

Chu Cj. *J Gastroenterol Hepatol* 2008

Potthoff A. *Expert Opin Pharmacother* 2010 Sci 2013

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

Epidemiyoloji

- Ortalama 7-20 milyon koinfekte hasta olduğu düşünülmektedir.
- Çalışmalarda;
  - HBV taşıyıcılarının %5-7 sinde HCV pozitifliği saptanırken
  - Anti HCV pozitif olanların %2-10'unda HBV pozitifliğine rastlandığı bildirilmiştir.

Chu Cj. J Gastroenterol Hepatol 2008

Potthoff A. Expert Opin Pharmacother 2010 Sci 2013

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

The Prevalence and Epidemiological Characteristics of Hepatitis B Virus and Hepatitis C Virus Coinfection in Turkey

Bilgehan AYGEN,[a]
Mustafa Kemal ÇELEN,[b]
İftihar KÖKSAL,[c]
Selma TOSUN,[d]
Oğuz KARABAY,[e]
Tansu YAMAZHAN,[f]
Orhan YILDIZ,[a]
Celal AYAZ,[b]
Fehmi TABAK[g]

TABLE 1: Characteristics of 99 patients coinfected with hepatitis B virus/hepatitis C virus.

The mean age, years*	40.9±21.7
Sex, female/ male n (%)	43 (43.4)/ 56 (56.6)
Distribution of patients n (%)	
Central Anatolian Region	34.3
Southeastern Region	31.3
Black Sea Region	19.2
Agean Region	10.1
Marmara Region	5.1
Risk factors n (%)	
Surgical procedure+dental therapy	20 (20.2)
Dental therapy	15 (15.2)
Surgical procedure	14 (14.1)
Hemodialysis	6 (6.1)
Blood transfusion	5 (5.1)
Surgical procedure+ blood transfusion	2 (2.0)
Dental therapy+blood transfusion	2 (2.0)
Surgical procedure+dental therapy+blood transfusion	1 (1.0)
Not found	34 (34.3)
Mean ALT level, IU/L*	70.9±49.1
Virological characteristics	
HCV RNA positivity n (%)	43 (43.4%)
Median (minimum-maximum)	0 (50-2.18x107)
HCV RNA level, IU/mL	
HBV DNA positivity n (%)	56 (56.6%)
Median	2.50x102
(minimum-maximum)	(12-1.70x108)
HBV DNA level, IU/mL	
HBV DNA and HCV RNA positivity n (%)	8 (8.1)

- Bu çalışma ülkemizde HBV/HCV koinfeksiyon sıklığını araştıran en kapsamlı çalışmadır.
- HBV/HCV koinfeksiyon oranı HBV veya HCV monoinfeksiyon oranlarından yüksek değildir.
- Ülkemizde prevelans yaklaşık 974/100.000 olarak bulunmuştur.
- HCV RNA ve HBV DNA'nın birlikte pozitif olduğu hastalarda (%87,5'inde) HCV infeksiyonu baskın bulunmuştur.

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

Klinik

Akut HBV/HCV koinfeksiyonu

- Genellikle IV ilaç bağımlılarında (görülme sıklığı çok az)
- HBsAg saptanması gecikebilir
- HBsAg antijenemisi monoinfeksiyondan daha kısa sürmekte
- Kronik hepatit gelişme oranı monoinfeksiyonla benzer
- Bifazik ALT yüksekliği ile seyredebilen tablolar mevcut
- HBV/HCV spontan klirensi

Konstantinou D.Ann Gastroenterol 2015; 28 (2): 221-228

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

Klinik

HBV süper infeksiyonu

- Sıklığı daha az, ancak tablo ciddileşmekte
- HBV süper infeksiyonu sonrası HCV RNA negatifleşmesi gösterilmiştir.

Liaw YF. *Am J Gastroenterol 2000;**95:2978-2980.***

- Kronik HCV infeksiyonu olan hastalarda fulminan hepatit riskini artırabileceği bildirilmiştir.

Sagnelli E. *Hepatology 2002;**36:1285-1291.***

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

Klinik

HCV süper infeksiyonu

- HCV süper infeksiyonu sonrası HBeAg serokonversiyonu ve hatta HBsAg klirensi görülebilir.
- Siroz ve HCC gelişmesi açısından aktif kr. HBV infeksiyonuna kıyasla daha riskli olduğu gösterilmiştir.

Liaw YF. Gastroenterology 2004 Apr;126(4):1024-9

- Fulminan hepatit gelişimi nadir olmakla beraber risk artmaktadır.

Wu JC. Hepatology 1994;19:836-840.

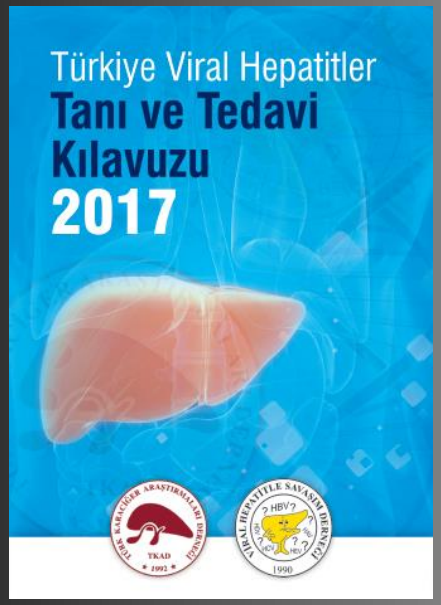
Klinik

Okkült HBV infeksiyonu

- Kronik HCV infeksiyonu olanlarda daha sık oranda görülebilmekte
- HCC gelişim riskini arttırmaktadır.

Torbenson, M., Thomas D. L. (2002). Occult Hepatitis B. *The Lancet infectious diseases*, 2(8) 479-486

HCV/HBV Koinfeksiyonuna Güncel Yaklaşım



- HBV infeksiyonu olmayan hastalar gibi tedavi edilirler.
- Kronik B hepatiti için tedavi kriterlerini karşılayanlarda HBV için antiviral tedavi başlanır.
- HBV tedavisi başlanmayanlarda HCV tedavisi sırasında HBV reaktivasyonu riskine karşı HBV DNA monitorizasyonu yapılır.
- HBV infeksiyonu için tedavi endikasyonu oluştuğunda tedaviye başlanır.

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

HCV/HBV Koinfeksiyonuna Güncel Yaklaşım

- Replikatif fazda olan virüse yönelik tedavi uygulanmalıdır.
- Koinfeksiyonu olan hastalarda Direkt Etkili Ajanlarla (DEA) tedaviye başlarken eğer hasta KHB için tedavi ölçütlerini dolduruyorsa Nükleot(z)id analoğu tedaviye eklenir.
- HBsAg pozitifliği olan inaktif taşıyıcılarda DEA'lar ile Nükleot(z)id analoğu eşzamanlı başlanır ve DEA tedavisinin bitiminden 12 haftaya kadar devam edilir.
- HBsAg negatif ve Anti-HBc IgG pozitif hastalar ise DEA tedavisi ve izlemi boyunca ALT ve HBV DNA izlemi yapılır.

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

Clinical Practice Guidelines

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*

HCV co-infected patients

Recommendations

- Treatment of HCV with direct-acting antivirals (DAAs) may cause reactivation of HBV. Patients fulfilling the standard criteria for HBV treatment should receive NA treatment (Evidence level II, grade of recommendation 1).
- HBsAg-positive patients undergoing DAA therapy should be considered for concomitant NA prophylaxis until week 12 post DAA, and monitored closely (Evidence level II-2, grade of recommendation 2).
- HBsAg-negative, anti-HBc positive patients undergoing DAA should be monitored and tested for HBV reactivation in case of ALT elevation (Evidence level II, grade of recommendation 1).

- Kronik HBV infeksiyonu olan hastalarda, HCV koinfeksiyonu daha şiddetli karaciğer hastalığı ve daha fazla HCC gelişimine yol açabilir.

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

Özel Konaklarda ve Özel Durumlarda Kronik Hepatit Yönetimi: Türk Klinik Mikrobiyoloji ve İnfeksiyon Hastalıkları Derneği Viral Hepatit Çalışma Grubu Uzlaşı Raporu

Management of Chronic Hepatitis in Special Hosts and Special Situations: A Consensus Report of the Study Group for Viral Hepatitis of the Turkish Society of Clinical Microbiology and Infectious Diseases

- HCV'nin baskın olduğu olgularda HBV reaktivasyonunun önlenmesi amacıyla preemptif olarak NA'nın da başlanmasının gerekliliği net değildir. Koinfekte hastalarda standard IFN ya da PegIFN ile ribavirin (RBV) kombinasyonunun kalıcı yanıt sağlama başarısı, monoinfekte hastalardan farklı bulunmamıştır.
- HBV'nin baskın olduğu olgularda tedavi bu virusa yönelik düzenlenmelidir.
- Bu hasta grubunda NA'nın tek başına ya da IFN'larla kullanıldığı calışmalara gereksinim vardır.

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

Özel Konaklarda ve Özel Durumlarda Kronik Hepatit Yönetimi: Türk Klinik Mikrobiyoloji ve İnfeksiyon Hastalıkları Derneği Viral Hepatit Çalışma Grubu Uzlaşı Raporu

Management of Chronic Hepatitis in Special Hosts and Special Situations: A Consensus Report of the Study Group for Viral Hepatitis of the Turkish Society of Clinical Microbiology and Infectious Diseases

Öneriler

1. HBV ve HCV ile koinfekte olgularda baskın virus belirlenmeli ve tedavi kararı buna göre verilmelidir.

2. Çoğu hastada kronik hepatit tablosundan HCV sorumludur ve bu hastalarda kronik HCV infeksiyonu tedavi edilmelidir.

3. Baskın virusa yönelik tedavi sonrasında olguların, diğer virusun reaktivasyonu açısından izlenmesi sürdürülmelidir.

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

ORIGINAL ARTICLE

WILEY

HBV reactivation in patients with HCV/HBV cirrhosis on treatment with direct-acting antivirals

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Summary

Anecdotal reports suggest that patients with chronic hepatitis C virus (HCV) hepatitis and overt or occult hepatitis B virus (HBV) coinfection may reactivate HBV when HCV is suppressed or cleared by direct-acting antivirals (DAAs). We assessed the prevalence of overt or previous HBV coinfection and the risk of HBV reactivation in patients with HCV cirrhosis treated with DAAs. This was a retrospective cohort of 104 consecutive patients with HCV cirrhosis treated with DAAs. Serum HCV-RNA and HBV-DNA were tested at weeks 4, 8 and 12 of DAAs therapy and at week 12 of follow-up. At the start of DAAs, eight patients (7.7%) were HBsAg positive/HBeAg negative with undetectable HBV-DNA and low levels of quantitative HBsAg (four on nucleos(t)ide analogues [NUCs] and four inactive carriers), 37 patients (35.6%) had markers of previous HBV infection (25 anti-HBc positive, 12 anti-HBc/anti-HBs positive) and 59 (56.7%) had no evidence of HBV infection. Sixty-seven patients (64.4%) were HCV-RNA negative at week 4 and 98 (94.2%) achieved sustained virological response. All four HBsAg-positive patients treated with NUCs remained HBV-DNA negative, but three of four untreated patients showed an increase in HBV-DNA of 2-3 log without a biochemical flare and achieved HBV-DNA suppression when given NUCs. During or after DAAs, by conventional assay, HBV-DNA remained not detectable in all 37 anti-HBc-positive patients but in three of them (8.1%) HBV-DNA became detectable with a highly sensitive PCR. HBV reactivation is likely to occur in untreated HBV/HCV-coinfected cirrhotic patients when they undergo HCV treatment with DAAs. Pre-emptive therapy with NUCs should be considered in this setting. Anti-HBc-positive patients rarely reactivate HBV without clinical or virological outcomes.

KEYWORDS

HBV/HCV coinfection, HBV-DNA reactivation, nucleos(t)ide analogues therapy, previous HBV infection, sustained virological response

Patients	Gender	Age	HCV genotype	HCV-RNA (IU/mL)	HBV-DNA (IU/mL)	qHBsAg (IU/mL)	DAA therapy	NUC therapy	Time of NUC therapy
1	M	65	1b	760 000	<20	88	OBV/PTV/r+DSV+RBV×12 wk	No	-
2	M	55	1b	2 160 000	<20	0.43	SOF/LDV+RBV×12 wk	No	-
3	M	53	1b	950 000	25	18	SOF/LDV×24 wk	No	-
4	M	61	2a/2c	3 120 000	<20	0.07	SOF+RBV×14 wk	No	-
5	F	60	1a	377 000	<20	65	OBV/PTV/r+DSV+RBV×12 wk	Entecavir	12 mo
6	M	64	1b	74 600	<20	125	SOF/LDV×24 wk	Entecavir	84 mo
7	M	66	2a/2c	360 000	<20	1.37	SOF+RBV×14 wk	Entecavir	36 mo
8	M	45	3a	19 400	<20	12 380	SOF/DCL+RBV×24 wk	Entecavir	36 mo

TABLE 5 Rate of flares of ALT and HBV-DNA according the virological status

	ALT flare (%)	HBV-DNA flare (%)
HBsAg positive (8 pts)	0 (0%)	3 (37.5%)[a]
HBsAg neg anti-HBs pos/neg anti-HBc pos (37 pts)	0 (0%)	3 (8.1%)[b]
HBsAg neg anti-HBs pos/neg anti-HBc neg (59 pts)	0 (0%)	0 (0%)

[a]four patients were yet treated with NUC before start DAAs therapy.
[b]HBV-DNA was detected by highly sensitive PCR.

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KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

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ORIGINAL ARTICLE

WILEY JVH

HBV/HCV co-infection is associated with a high level of HCV spontaneous clearance among drug users and blood donors in China

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ctors associated with HCV spontaneous clearance

	Drug users				Blood donors			
Factors	Chronic HCV-infected (%) N=701	Spontaneous Clearance (%) N=124	P	OR (95%CI)	Chronic HCV-infected (%) N=1262	Spontaneous Clearance (%) N=264	P	OR (95%CI)
Age	36.81 ± 6.72	36.40 ± 7.51	.89	–	32.40 ± 9.31	28.62 ± 9.72	4.09E-9	–
Gender								
Male	471 (67.19)	60 (48.39)	5.60E-5	1	1044 (82.73)	162 (61.36)	8.93E-15	1
Female	230 (32.82)	64 (51.61)		2.18 (1.49,3.21)	218 (17.27)	102 (38.64)		3.02 (2.26-4.02)
Ethnicity								
Han	656 (93.58)	116 (93.55)	.99	1.00 (0.46,2.16)	1229 (97.39)	258 (97.73)	.75	1.13 (0.48-2.79)
Others	45 (6.42)	8 (6.45)		1	33 (2.61)	6 (2.27)		1
Living area								
Guangdong	595 (84.88)	102 (82.26)	.46	0.83 (0.50,1.37)	836 (66.24)	165 (62.50)	.24	0.85 (0.65-1.12)
Others	106 (15.12)	22 (17.74)		1	426 (33.76)	99 (37.50)		1
Marital status								
Single	408 (58.20)	75 (60.48)	.64	1.10 (0.74,1.62)	618 (48.97)	144 (54.55)	.10	1.25 (0.96-1.63)
Couples	293 (41.80)	49 (39.52)		1	644 (51.03)	120 (45.45)		1
Education								
Illiterate	128 (18.26)	28 (22.58)	.38	–	35 (2.77)	8 (3.03)	.98	–
Primary	321 (45.79)	61 (49.19)			84 (6.66)	16 (6.06)		
Secondary	237 (33.81)	33 (26.61)			448 (35.50)	94 (35.61)		
University	15 (2.14)	2 (1.61)			695 (55.07)	146 (55.30)		
Inject or not								
Yes	479 (68.33)	83 (66.94)	.76	1	–	–	–	–
No	222 (31.67)	41 (33.06)		1.07 (0.71,1.60)	–	–	–	–
Drug exposure								
<=1	98 (13.98)	12 (9.68)	.19	1	–	–	–	–
>1	603 (86.02)	112 (90.32)		1.52 (0.81,2.86)	–	–	–	–
HBV infection								
Yes	85 (12.13)	60 (48.39)	1.38E-22	6.80 (4.46,10.31)	23 (1.82)	15 (5.68)	2.55E-4	3.25 (1.67-6.31)
No	616 (87.87)	64 (51.61)		1	1239 (98.18)	249 (94.32)		1

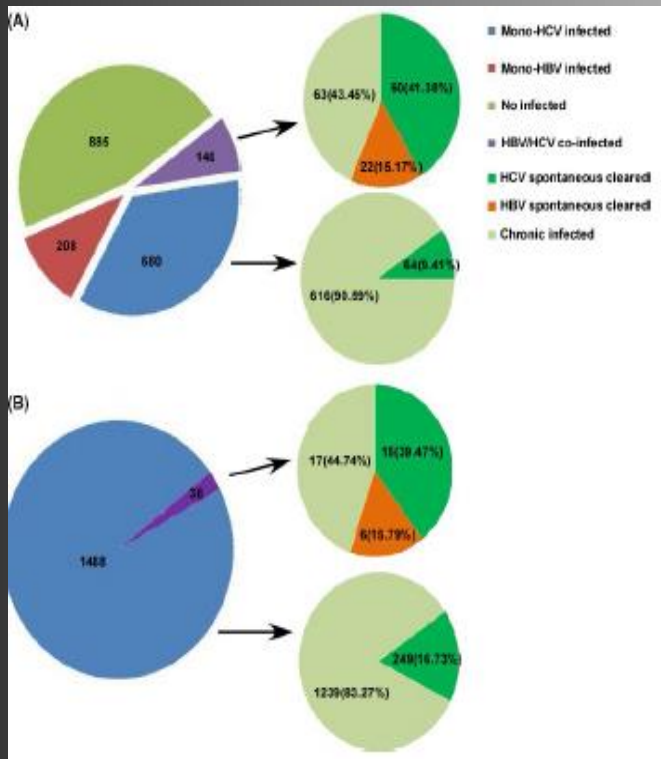

FIGURE 2 (A) Spontaneous HCV clearance rates between HCV mono-infection and HBV/HCV co-infection in male and female drug users and blood donors. *p<0.05. (B) Distribution of HBV infected or not for each IL28B genotype plotted by spontaneous HCV clearance rate. Bars represent the total percentage of HCV spontaneous clearance for the protective alleles (TT) and nonprotective alleles (CT/GG). The numbers in the bars indicate the percentage of HCV spontaneous clearance for mono-HCV infection and HBV/HCV co-infection for each allele

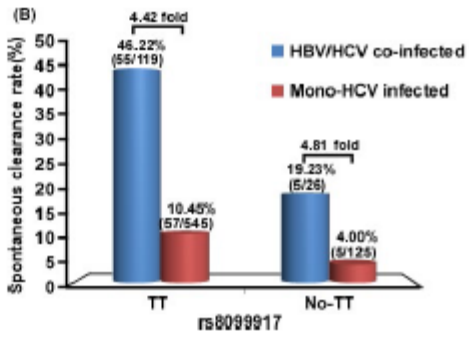

FIGURE 1 HBV/HCV co-infected drug users and blood donors presented a high rate of HCV spontaneous clearance. (A) Virological characteristics of 1918 drug users included in this study. (B) Virological characteristics of 1526 HCV-infected blood donors included in this study

TABLE 2 Factors associated with HCV spontaneous clearance among HBV/HCV co-infection drug users

Factors	Co-infection no HCV cleared N=85	Co-infection HCV cleared N=60	P value	OR (95%CI)
qHBsAg				
<200 IU/mL (78)	45 (52.94)	33 (55.00)	.81	1.04 (0.77-1.41)
≥200 IU/mL (67)	40 (47.06)	27 (45.00)		1
HBV DNA				
<2000 IU/mL (66)	46 (54.12)	20 (33.33)	.01	1
≥2000 IU/mL (79)	39 (45.88)	40 (66.67)		1.45 (1.09-1.95)

Clinical Infectious Diseases

BRIEF REPORT

No Evidence of Reactivation of Hepatitis B Virus Among Patients Treated With Ledipasvir-Sofosbuvir for Hepatitis C Virus Infection

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Postmarketing cases of hepatitis B virus (HBV) reactivation during hepatitis C treatment have been reported. We analyzed serum samples from patients in a clinical trial of ledipasvir-sofosbuvir in Taiwan and Korea. Of the 173 patients enrolled, 103 (60%) had been previously infected with HBV. None showed evidence of HBV reactivation.

Table 1. Baseline Demographics and Disease Characteristics

Characteristic	Patients Positive for HBcAb (n = 103)	Patients Negative for HBcAb (n = 70)
Age, y, median (range)	58 (36–75)	52 (20–74)
Male sex	43 (42)	33 (47)
Race		
Korean	51 (50)	40 (57)
Taiwanese	51 (50)	29 (41)
Chinese	0	1 (1)
Taiwanese-Chinese	1 (1)	0
HCV genotype		
1	1 (1)	0
1a	8 (8)	4 (6)
1b	94 (91)	66 (94)
Cirrhosis		
No	84 (82)	63 (90)
Yes	19 (18)	7 (10)
HCV RNA, $\log_{10}$ IU/mL, median (range)	6.8 (3.7–7.4)	6.9 (5.2–7.6)
ALT, U/L		
Mean (SD)	86 (80.9)	68 (43.1)
Median (range)	58 (11–619)	58 (13–189)
HCV treatment experience		
Naive	49 (48)	37 (53)
Previously treated	54 (52)	33 (47)

Data are presented as No. (%) unless otherwise indicated.

Abbreviations: ALT, alanine aminotransferase; HBcAb, hepatitis B core antibody; HCV, hepatitis C virus; SD, standard deviation.

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Sustained Hepatitis C Virus Clearance and Increased Hepatitis B Surface Antigen Seroclearance in Patients With Dual Chronic Hepatitis C and B During Posttreatment Follow-Up

Patients dually infected with hepatitis C virus (HCV)/hepatitis B virus (HBV) have a higher risk of developing advanced liver disease or hepatocellular carcinoma compared with monoinfected patients. Yet, there is a similar rate of sustained virologic response (SVR) after peginterferon alfa-2a and ribavirin combination therapy in these patients compared with HCV-monoinfected patients and a high hepatitis B surface antigen (HBsAg) seroclearance rate. The durability of hepatitis C and B clearance in coinfected patients was investigated in a 5-year follow-up study. Patients with active HCV genotype 1, both HBV-coinfected (n = 97) and HBV-monoinfected (n = 110), underwent 48-week combination therapy with peginterferon alfa-2a plus ribavirin. In patients with active HCV genotype 2 or 3, both HBV-coinfected (n = 64) and monoinfected (n = 50) patients underwent 24-week combination therapy. A total of 295 (91.9%) patients completed treatment and 24 weeks posttreatment follow-up; 264 (89.5%) patients agreed to receive additional follow-up for up to 5 years after the end of treatment. After a median follow-up of 4.6 ± 1.0 years, six of the 232 patients achieving SVR developed HCV RNA reappearance, including five HCV genotype 1/HBV-coinfected patients and one HCV genotype 2/3-monoinfected patient. Subgenomic analysis of the HCV core gene indicated that five patients developed delayed recurrence of HCV infection. Overall, the cumulative recurrence rate of HCV infection was 2.3% (0.4%/year; 95% confidence interval [CI], 0.9%-5.5%). The cumulative HBsAg seroclearance rate was 30.0% (95% CI, 21.5%-42.0%); with 33.1% (95% CI, 21.8%-50.1%) in the 48-week combination therapy group and 24.3% (95% CI, 13.7%-42.9%) in the 24-week therapy group. *Conclusion*: Peginterferon alfa-2a and ribavirin therapy provides good HCV SVR durability and a high accumulative HBsAg seroclearance rate in patients who are coinfected with HCV and HBV. (HEPATOLOGY 2013;57:2135-2142)

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ

Teşekkürler

VHÇG

KLİMİK TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI DERNEĞİ