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JOURNAL OF
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Clinical application and significance of high sensitivity hepatitis B virus DNA detection

UANE Hie WS Euangxin JS Fengmin ρ

Department of Kicrobiology $ Gnfectious Disease Center School of Basic Kedical Sciences Peking Sniversity Health Science Center Bei h ing China 100171

ABSTRACT Ouantitative detection of hepatitis B virus HBV DNA can effectively monitor the infection status and antiviral efficacy of HBV thus it has important clinical significance in the diagnosis and evaluation of antiviral efficacy for chronic hepatitis B CHB , Compared with the conventional HBV DNA detection the high Ų senesitivity HBV DNA detection has lower detection limit and a wider linear range and has been used as an important indicator for evaluating the virological response and the end point of treatment for CHB patients receiving nucleos t ide analogues in the guidelines of CHB management , Gn this manuscript we review the applications of high Ų sensitivity HBV DNA detection in sceening for occult HBV infection OBG to enhance the safety of blood transfusion sceening for HBV infection before operation to reduce iatrogenic HBV infection sceening for HBV infection before radiotherapy and chemotherapy to reduce the occurrence of HBV reactivation evaluating antiviral efficacy and treatment endpoints to reduce the viral rebound and CHB replase after drug withdrawal and predicting drug resistance mutations in HBeAg negative CHB patients ,

IEW UORDS Hepatitis B virus High Ų sensitivity HBV DNA detection Occult HBV infection Nucleos t ide analogues

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2 J _ g K U g l R W q _ m t A _ j , G l a p c Ų _ q c b q c p j c l a c m d F@T B L ? u g r f k s r _ r g m l q g l g l b g t g b s _ j q e p _ c p _ q m j b r f d h ų p a m k n j a g l _ H r , g E n _ l q r p m c 0 r / 2 m j e w Ų 2 . 5 ,

3 F m m d l _ e Q j c c k E @ J q c q c X r @ _ j , R w Ų n c @ f c n _ r g r g q _ d r c p r p _ l q d s q g m l u g r f ` j m f c n _ r g r g q @ H a , m l p C l e j r g E K 5 0 7 6 0 3 / 1 5 7 Ų / 1 6 1 ,

4 U _ l e H U R l e R Q F f c s e H A _ j , B c r d Ų a r g m l m d _ r g r g q @ t g p s q B L ? ` w n m j w k Ų c p _ q c a f k _ m d t m j s l r c c p ` j m m b b m l m p q l c e _ q s p d _ a c H _ , l H r G e d c / a 7 r 7 B 4 g 0 1 7 Ų 5 1 7 7 ,

5 A f _ x m s g j K j _ c k p g c q q f l M B k K c r ł _ M j a , a Ń s j r f c n _ r g r g q @ t g p s q _ q q m s p Ų a c m d g l n j _ l r p c H a , g J n g b / 1 7 7 0 2 2 1 6 6 7 . / 2 Ų 0 / 2 4 ,

6 T g j j E p C m r r m @ j s _ r ? _ d o m a m N , C t g b c l a c d f c n _ r g r g q @ t g p s q g l d c a r g Ų m l g l n _ r r g r g q A u g r f _ l b u g r f m s r q c p m j m e g a @ H , B g e B g / q 7 Q 2 8 g / 6 Ų / 1 ,

7 A _ a a g N m j _ j G g a Q g p l s m R p o g r r m j E , M Ų a s j r f c n _ r g r g q @ t g p s q g l d c a r g m l g l n _ r g c

Establishment and evaluation of a hypersensitivity method of real time fluorescent PCR for hepatitis B virus detection

VGA Oiao JGAO Jili DONE XhiqiangWANE Honghui HGANE Viwen

Research Center of Kedical and Pharmaceutical Bioengineering, Kinstry of Health National and Regional Hoint Engineering Jaboratory for Clinical Kedical Kolecular Diagnostics, Euangdong Province Nucleic Acid Kolecular Diagnostics Engineering Technology Research Center, Euangdong ProvincialClinical Kedical Kolecular Diagnostics Engineering Technology Center, DAAN Eene Co , Jtd , Of Sun Wetsen Sniversity Euangzhou Euangdong China 510445

ABSTRACT Obhective TaqU man real U time fluorescent PCR was used to establish a method for hypersensitivity detection of hepatitis B virus DNA HBV DNA load hereinafter referred to as a hypersensitivity reagent and its clinical application was evaluatde, Kethods Based on the analysis of the HBV DNA genome sequence in EeneBank a pair of specific primers and probes were designed in the S and C regions of HBV viral genome using Prime5 , 0oftware and the reaction system and reaction conditions were optimized by TaqU man probe techneiqu Results The established HBV DNA hypersensitivity detection method has a sensitivity of10 GS - mJa linear range of20 to 1 Â10⁷ GS - mJand an accuracy of100 # , The coverage types are A B C D E F and H , The intraU and interU assay coefficient of variation between batches is within5 # , The results of75 clinical samples showed that compared with a domestic reagent the

DªG4koÄð.0eÃGeåt ‘Q10 2 ÿ• DsRú5 G+´GG+±¹G*Â0 ,_G*ò ÿ• DsRú5 G+´GG+¼s Q³´y Ù´y êäp;Fôp1ÞÔð

r² ”

.,78 ɟ

/,2,3 ɳ Ȯ

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ϕ ﻱ ﻩ ﻝ ɬ ɖ̃

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Ȯ Mrgggn Qggkogb_l Fgt ´

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í ɔ e ´ / Â/ .⁸ IS-kJ

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kJ ˆ Ma/ / Â/ .³ IS-kJ ˆ Ja/ ʄ

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CT e CT ⁼3 #˝Ω Ǐ ´ ɟ

í ɔ Ɓm oy e ´ / Â/ .⁸

IS-kJ w ɔ ₱˜ Ḁ ﻝ ɬ Fa2 / Â

/ .⁸ IS-kJ ˆ Ma2 / Â/ .³ IS-kJ ˆ Ja2 ʄ

F@T ˝A ɬ ɖ̃ 2.. IS-kJ Y

ﻝ ɬ 3 ɕ Y ﻝ ɬ ˘

2 e ﻝ CT ⁼

3 #˝Ω ´ ɟ

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ŭ ﻱ ﻝ ɬ F@T UorIbugbe AaasQetRM PerdorỤ

k_nae P_nel Ƀ˜ A @ ɷC ɷB ɷC ɷF ɷF 5 ﻱ ɖ̈ ʄ

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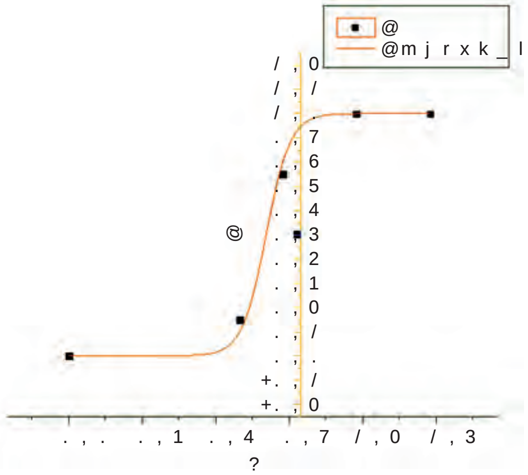
06,21.
05,3..
03,3..
01,3..
0/,3..
/7,3..
/6,257
1,477 2,... 2,3.. 3,... 3,3.. 4,... 4,34,477
JmeAM

/

Dges/pRcfc pcqsjrq md os_lrgr_r
_knjgdga_rgml jglc_p asptc



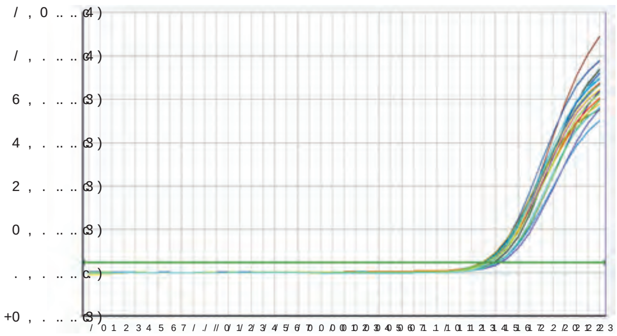
0 F@T

Dges0pQclqgrgtgrw bcrcpkgl_rgml rcq

/ F@T n #

R_`le / Rfe resslts od sensgtgvgtw beter kgn_tgon test n #

GS-kJ	- n	#
	2.-2.	/..
0 .	2.-2.	/..
	2.-2.	/..
	2.-2.	/..
/ .	2.-2.	/..
	2.-2.	/..
	/4-2.	8.
3	/3-2.	53
	/4-2.	8.
	2-2.	/.
0 , 3	3-2.	/3
	3-2.	/3
	.-2.	.
	.-2.	.
	.-2.	.



1

Dges1pBcc rcpkgl_rgml md rfc kglgksk c
bcrcargml jgkgr

r² ;.,772 Ḥ ' م ε
2.|/Â/.⁷ IS-kJ ه 2 ɟ

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2

R _ `2j ct _ j s _ r g m l m d a j g l g a _ j q _ k n j c q m d ` f w n c p q c l q g r g t c

p c _ e c l r q _ l b _ b m k c q r g a a c p r g d g c b p c _ e c l r

	/82	/	/83
̓Ḥ	/	/1	/2
	/83	/2	/73

/,28	3,28	3,28	5,27	7,27	/,22	3,24	3,.7	4,73	8,54

6

D g e 6 s p A m p p c j _ r g m l _ l b a m l q g q r c l a w _ l _ j w q g q p c q s j r q m d f w n c p q c l q

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A K G ? Ψ F@T B L⁄? F@q ?∃e ῎ P m a f c A m ` _ q

? k n j g N p c n - A m ã ` _ q R _ o K _ l F@T B Ꞁ ? بم 3 / ʒ7 Ψ F@q ? e

7 ʒ / 5 , 1 # F@q ? e ΰ ε 3 G <3 . . G S - kɞG G / . . . .| 3G S - kɞG G G

3 . . .| /G S - kɞG T / . . | G3 S -. k⁄ JT . , . 3 G S - kG F@T B L ? GɞG ɞGɞT

τ P<.,.3 ɟ 7. ʒ F@sAg Ψ /3 ʒ F@T BLA ӊ Ҍ PCP

ӊ ▌ /2,2 # ɟ F@T BLA 57 ʒ /3,2 # ẹ Ψ 2 ʒ F@sAg ε

CMIA ε 2,3 # ɟ /3 ʒ ῎m Poafe ẫ ˜ /3 ʒ

F@T BLA F@sAg F@T BLA ﭻ ӊ Ҍ ӊ 2 ʒ F@T BLA

F@sAg F@T BLA Ҍ ӊ ɟ Ά Ἂ PCP F@T BLA

ɞ ɞ ᵉ PPT ⁄ ᵉ LPT ﭻ ε / . . , . # CMIA F@sAg ɞ

ɞPPT ɞLPT ΰ ᾳ ε 75,3 # ɞ75,. # ɞ83,4 # ɞ77,3 # PCP F@T ⁄ PPT Ҍ CMIA

P<.,.3 ɟ ẉ PCP F@T BLA ’ Ҍ ῴ Ҕ Ҍ ῴ ƒ CMIA

Ἂ א l Ỉ F@T Ἄ Ỹ ⁄ Ꝁ שׂ ה ┼ ├ Ꝁ ɟ

ψ ẉ PCP F@T BLA ɔ ה ẉ ẍ ΰ ῴ

The application value of high sensitivity HBV nucleic acid test in preoperative screening

JG Baoqi[1,2] CHEN Peisong[1] HSANE Hao[1] WS Vuegao[1] HSANE Bin[1ϼ]

1 , Department of Jaboratory Kedicine The First Affiliated Hospital Sun Wat Ų sen Sniversity Euangzhou Euangdong China 510080 2 , I ing Ked School of Jaboratory Kedicine Euangzhou Kedical Sniversity Euangzhou Euangdong China 510180

ABSTRACT Ob h ective To explore the application value of high Ų sensitivity Hepatitis B virus HBV nucleic acid detection in preoperative screening Kethods Serum samples were collected before surgery and HBV DNA and HBsAg in serum were detected by high Ų sensitivity fluorescence quantitative PCR high Ų sensitivity PCR and chemiluminescent microparticle immunoassay C KGA , Specimens with inconsistent results from both methods were tested for HBV DNA using the Roche Cobas AmpliPrep - Cobas Taq K an automated nucleic acid detection system Results Among 517 serum samples 70 cases 1 5 , 3 # of HBsAg Ų positive specimens were divided into 5 groups according to the quantitative results of HBsAg group

P3. P23 P53 I rssl_I $ U_llgs F 1
M_nn Ų U fgtnew S ũ w #
χ P<.,.3 ε τ ɟ

χ

P<.,.3 / ɟ

/ F@T B L ?F@q ? e
R _ `/j æmk n _ p g q m l r f c p c q s j r q m d F@T B L

CMIA	PCP	F@T BLA	´
F@sAg	)	+	
)	55	/3	7.
+	2	225	227
´	57	22.	3/7

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P<.,.3
M_nn Ų U fgtnew S Ξ Ξ I F@T
BLA Hь II ɑIII ɑI T ɞT τ P<
.,.3 ɟ ę æ˘ τ P>.,.3 ɟ
2 ɟ

2 F@sAg F@T BLA

R_`le 2 Cokp_rgson od F@T BLA o s_ntgt_tgve ressltsgn F@sAg Ų posgtgve s_kples

P<.,.3 ɟ

1 /3

R_`1j Qcpsk k_picpq dmp/F3@_Tkgnljdcqa rgml md ugrfglamlqggqrclr pcqsjrq

″	F@sAg	F@sA`	F@eAg	F@eA`	F@aA`
@/38	)	+	+	+	)
@/8.	)	+	+	+	)
@/7.	)	+	+	+	)
C///	)	+	+	+	)
C/37	)	+	+	)	)
C/33	)	+	+	+	)
B34	)	+	+	+	)
B4.	)	+	+	+	)
B45	)	+	+	+	)
B47	)	+	+	+	)
B55	)	+	+	+	)
B58	)	+	)	)	)
B8.	)	+	+	+	)
B42	+	)	+	)	+
B83	+	)	+	+	)

)ų +ų ɟ

2 /3

R_`2j Pcbcrca/3g_klnmjdcq ugrfglamlqggqrc

″	F@q?E GS-kJ	F@T BL? GS-kJ	F@T BL?i GS-kJ
@/	160.,.0	:/.	:0.
@/	6.746,37	:/.	:0.
@/	7.746,4.	:/.	:0.
A/	///..,0.	:/.	:0.
A/	17445,/4	:/.	:0.
A/	3341,2.	:/.	:0.
B34	03,/6	:/.	:0.
B4.	34.,3/	:/.	:0.
B45	/73,02	:/.	:0.
B47	14..,31	:/.	:0.
B55	756,0/	:/.	:0.
B56	/50.,74	:/.	:0.
B6.	21/,54	:/.	:0.
B42	.,..	53,42	0/,5
B63	.,..	/2,.3	/54

P<

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3 NAP AKG? n #

R_`le 3 Rfe perdork_nae od fggfŲ sensgtgve PCP _nb CMIA n #

	Ã						PPT	LPT
	Q)R)	Q)R+	Q+R)	Q+R+				
PCP	57	.	.	22.	/..,.	/..,. (	/..,. (	/..,.
CMIA	55	2	/3	225	75,3	75,.	83,4	77,3

Q ų Ã R ų)ų +ų (Á CMIA P<.,.3 ɟ

F@c?e F@q?e F@T BL?
φ F@c?e
/2 ɟ
7. F@q?e F@T BL? ε
63,34#1 NAP
ε ɟ ʬ /1 ج ε
/0 ε F@c?e ɟ
F@T ’
Ẻ Ʞ ӂ F@T Q ’ ζ
F@q?e F@q?e
’ ӂ F@T BL’?
NAP ᾳ̃ /ȣ/4 ɟ /1
F@q?e ε 321§2/6.5 ,G2S6- kJ
/0 ج ε /5Ų/6 ч 0.,.0|
756 ,G0S/- kĐJ/ F@q?e ε /
50.ĢS4 kJ ε F@q?Fe@c?Fe@c?`
F@a?` ɟ NAP ج ᾳ̃ /1 UtL)eDÂÔ

F@Tζ
ã̃ Ʞ ├ Ʞ
ʄ O ├ ڈ Ẩ ʍ
ج ɟ
ж ’
א O
P ש ² ɟ ã̃ O γ
F@TƘ ɟ
ɘ F@T ζ
ɟ
ᾳ̇
F@T
ζ Ḇ F@q?Fe@q?F`@c?Fe@c?`F@U
a?`ζ Ⴗ
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³⁴ ɟ ε
F@T ├
P ש ├ ε
Ύ א Ʞ ɟ NAP
ٱ ΊΩ
מ ˝
Ὀ ئ Ỷ
ɟ Ύ ’
. ɘ ɟ F@T BL?
/.|G̸S - kJ
Җ Җ 0./3 ╞├ Җ
Җ ╞├ Җ ҖὈ ‘
ʄ ⁵Ų⁷ɟ
7. F@q?e F@q?e
ε 3 G F@q?3e.<.GS - kJ
F@T BL? GGGGGT T ӂ GGGGG
GTT φ F@T BL?
τ F@q?e
.,.3|.GS - kJ ӏѦ F@T BL?
ɟ F@q?e F@T
BL? φ щ S /./+0
Ὀ F@T φ ı
/1 ɟ ᵮ Ὀ

Comparative study of high sensitivity and conventional fluorescence quantitative PCR in the monitoring of antiviral efficacy in patients with chronic hepatitis B

JS Hianhua WANE Ji X HAO X haoxiaJG Oianlin JG Kinran JGS Wuzhen DAG Erhei CHEN Viuli
Department of Jaboratory Kedicinethe Fifth Hospital of Shi h iazhuangShi h iazhuangHebei China 050021

ABSTRACT Ob h ective To compare the difference between high sensitivity and conventional fluorescence quantitative PCR in the monitoring of antiviral efficacy in patients with chronic hepatitis B CHB , Kethods A total of 1 2 1samples of 2 7patients with CHB were negative :500 GS - mJ specimens with common PCR and were reviewed with high Ų sensitivity PCR reagents Results Based on the quantitative results of serum HBV DNA using high Ų sensitivity PCR 1 2 1negative samples with common PCR results existed in the following five conditions namely <500 GS - mJ 20 | 500GS - mJ 10 | 20GS - mJ :10 GS - and negative , The proportions were 5 # 31 , 7 # 18 , 2 #30 , 5 # and 5 , 5 #respectively , With the gradual increase of serum HBV DNA levelthe level of AJT AST levels and abnormal elevated rates in each group also showed a gradually increasing trend , Howevenly the AST levels of each group were significantly different P<.,.3 , As sersk F@T BLA levels gr_bs_llw beare_seb tfe posgtgve r_te _nb level od sersk F@eAg gn e_af grosp _lso gr_bs_llw beare_seb, Akong tfek tfe F@eAg posgtgve r_te od F@T BLA neg_tgve grosp u_s sggngdga_ntlw louer tf_n tf_t od /.|2. IS-kJ grosp _nb >3.. IS-kJ grosp P<.,.3 , Conalssgon Cokp_reb ugtf aonventgon_l PCP

$\bar{x} \pm s$

n ũ # ▌ ũ

ɟ P<.,.3 ε τ ɟ

/ NAP NAP AF@ F@T BL? n #

R_`le / Cokp_rgson od sersk F@T BLA resslts `etueen fggf sensgtgvgtw _nb nork_l PCP gn CF@ p_tgents n #

P e ũ ą̈ ε .,.33 ɷ.,..4 ӂ˘ F@eAg φ

τ P>.,.3 3 ɟ

P>.,.3 ɟ F@T BLA

ɷ</. IS-kJ ʌ /.|2. IS-kJ Ά F@T BLA>3.. IS-kJ CF@ AQR

ᾧ τ P e ũ ą̈ ε .,./. ɷ.,./2 ɷ .,.23 ɟ ę æ˘ φ ᾧ τ P>.,.3 ɟ F@T BLA ѽ ˘ AJR ɷAQR ╗ Ş ğ̈ ѽ † ӂ

τ P>.,.3 ɟ

0 AF@ F@T BL?? JR? QR

$\bar{x} \pm s$

Table 2 Relationship between serum HBV DNA an ALT an AST in CHB patients $\bar{x} \pm s$

F@T BL? GS-kJ	?JR S-kJ ╗	?QR S-kJ ╗
<3.. /7	620,21,13/§,421/,45,/26§,1	
0.|3..23	/.00,007,/.3§,770.,1.§/53,6	
/.|0. 04	401,04,/30§,05,506,60;§/	
:/. 21	27,11.,047§,43/1,076,//.§,6	
6	//0,303,73,§5.. 00,16;§5	

<3.GS-kJ P<.,.3 ɟ

1 AF@ F@T BL? F@c?e ŲF@a

$\bar{x} \pm s$

Table 3 Relationship between serum HBV DNA loa an HBeAg an anti hbc status in CHB patients $\bar{x} \pm s$

HBV DNA IU ml	n	F@eAg Ỹ	ŲF@a Ỹ
500	/7	/4 82,2 -/34,4§22/,7	/7 /..,. 83,2§2.,2
20 500	23	27 42,2 32,5§//2,/	23 /..,. 7/,2§24,5
10 20	24	/7 53,/ - 3,3§//,8	24 /..,. /.5,2§38,2
10	23	24 4.,3 23,4§232,3	23 /..,. /.2,2§3.,3
	8	2 23,. 2,.§5,5	8 /..,. 58,3§3.,3

Ά F@T BLA P<.,.3 ɟ

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NAPŲ

/ 2oɣ F@T

:3 .GS-kJA F@

NAP c 6oy

3,5ɷ# ɟ F@T Y

kPL? ï

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ε /|Â1/ ⅛.- l r⁴-ɟ F@T ђ BL?

2Y PL? /|Ɣ0

ɟ NAP Q A ˥

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P<.,.3 ɟ ΎY F@T BLA
ԡ ˘ F@eAg ۲ ʢ
ئَو ԡ † ɟ ẹ Ψ F@T BLA
F@eAg ԡ Ҍ /.|2. IS-kJ ۲ >3..
IS-kJ P<.,.3 F@T BLA
ئَو CF@ Ψ הּ
Ə ɟ F@T BLA ζ Ҍ ó
F@T ἎḀ ' Ҍ
שׁ ó 3 ɟ
F@T BLA ۼ
22 ۹ F@T BLA e '
TP 22 ۹ F@T BLA <2,3 log/. IS-kJ
3 TP ᾅ 78,4# 22 ۹ F@T
BLA e ' F@eAg /. 22 ۹ F@T
BLA<43 IS-kJ 2 F@eAg
23,2# // ɟ ΎY ȅ ἰ
' Ҍ ɔ
/2+/3 ɟ З ݘ
۲ F@T BLA ۲
ɟ PCP Ҍ m
; c ε 3.. IS-kJ ῎ ἰ ɸ
ۼ Ὃ F@T BLA
ɟ
הּ Ђm З ἰ ɵ e Ӂ
Ҍ ɿ ᴥ Ψ ɞ ἰ
ɯ שׁ ɯ ɟ 5 Y ἰ
Ψ Ђ ε 2 ▌
ἌΩ F@T BLA
ἰ ɵ e Ẩ ۲
ɵ ɟ

A ۆ

/ Uorlb Fe_ltf Mrg_ngx_tgon, Esgbelgnes dor tfe prevenŲtgon a_re _nb tre_tkent od persons ugtf afronga fep_tgŲtgs @ gndeatgon, Uorlb Fe_ltf Mrg_ngx_tgon 2./3,

2 Rerr_slt LA Jo i AQF MaM_fon @H et _l, Spb_te on preventgon bg_gnosgs _nb tre_tkent od afronga fep_tgtgs @ AAQJB 2./8 fep_tgtgs @ gsgb_nae H , Fep_tologw 2./8 45 2 /34.Ų/377,

3 Csrope_n Assoag_tgon For Rfe Qtsbw Md Rfe Jgver, CA Ų QJ 2./5 Clgnga_l Pr_atgae Esgbelgnes on tfe k_n_geŲkent od fep_tgtgs @ vgrss gndeatgon H , Hosrn_l od fep_Ųtologw 2./5 45 2 35.Ų378,

2 Q_rgn Q I I sk_r M J_s E I et _l, Asg_n Ų P_agdga algnga_l pr_atgae gsgbelgnes on tfe k_n_gekent od fep_Ųtgtgs @ _ 2./3 spb_te H , Fep_tologw gntern_tgon_l 2./4 /. / /Ų78,

3 Ψ ╞ ├ Җ ΰ Җ Ψ ╞ ├ Җ ΰ Җ, ɸ ى ╧ 2./3 H , Ψ ╞ 2./3 23 /2 888Ų7.3,

4 , ἰ X , ← Ш ж ► Ὀ 2..5, /37Ų/33,

5 I _ng_ B Mttok_ng J Meb_ L et _l, Perdork_nae od tuo re_lŲtgke PCP _ss_ws dor fep_tgtgs @ vgrss BLA beŲteatgon _nb os_ntgt_tgon H , H Tgrol Metfobs 2./2 2./ 22Ų3.,

8 Jgs C Cf_ng J Hg_ R et _l, Pe_lŲtgke PCP _ss_ws dor fep_tgtgs @ vgrss BLA os_ntgdga_tgon k_w reosgre tuo bgdderent t_rgets H , Tgrol H 2./5 /2 / 72,

7 Qsn Q Meng Q Xf_ng P et _l, Bevelopkent od _ neu bsplev re_lŲtgke polwker_se af_gn re_atgon _ss_w dor fep_tgtgs @ vgr_l BLA beteatgon H , Tgrol H 2.// 8 225,

/. Qfgn HU Hsng QU P_r i @P et _l, Prebgatgon od reŲsponse to entea_vgr tfer_pw gn p_tgents ugtf F@eAg Ųposgtgve afronga fep_tgtgs @ `_seb on onŲtre_tkent F@ŲsAg F@eAg _nb F@T BLA levels H , H Tgr_l FepŲ_t 2./2 /7 /. 522Ų53/,

// Peng CW Fsgef RC Fsgef RW et _l, F@T ŲBLA levŲel _t 4 kontfs od entea_vgr tre_tkent prebgats F@eAg loss gn F@eAgŲposgtgve afronga fep_tgtgs @ p_tgentsH , H Forkos Meb Assoa 2./3 //2 2 3.8Ų3/3,

/2 P_ulots i w HM Bssfeg i o E F_tx_ i gs A et _l, TgroŲlogga kongtorgng od fep_tgtgs @ vgrss tfer_pw gn algnga_l trg_ls _nb pr_atgae reaokkenb_tgons dor _ st_nb_rbŲgxeb _ppro_af H , E_stroenterologw 2..8 /32 2 2.3Ų2/3,

/3 Jo i AQF MaM_fon @H, Cfronga fep_tgtgs @ H , FepŲ_tologw 2..5 23 2 3.5Ų337,

χ P<.,./ ɟ

0 F@T BL?

R_`0jℵ r gclrq ugrf qcpsk fgef qclqgrgtgrw F@T BL?
jctcjq _pc _qqmag_rcbugrf agppfmqgq _lb _lrgtgp_j rpc_rkclr

ꝙ		F@T BL?	F@T BL?
ↄ F@T	1 4	/ 7/ 7 , 6	/ 5/ 5 , 5
ↄ F@T	4 .	3 33 5 , 1	3 3 , 0
	5 1	4 14 3 , 4	/ ./ . , 2
	0 1	/ // / , 3	/ 0/ 0 , 3

2,3 ẍ Ά F@T BLA

74 ɋ FCC ɸ ی

3 ɟ F@eAg F@T BLA>/. IS-kJ ɋ ε 7/,4# F@eAg Ψ

F@T BLA>/. IS-kJ ε 53# J

τ χ P2>.,.3 ɟ

2,2 ʽ Ά F@T BLA

74 ɋ FCC ʽ AJR ש ƱŲER

52 ɋ ▌ 53,.# ɟ AJR ש ƱŲ ER

F@T BLA ׀

AJR ש ƱŲ ER 2 J ؤ

ↄ Ẻ P<.,.3 ɟ

F@T ʄ

F@T BL? ε ó ζ /

Ὀ F@T BL? щ

F@T BL? NAP ; ε /. .GS-kJ

Y ; F@T BL̈?

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F@T BL? NAP

F@T BL?

ぴ 7Ų/ . ɟ

F@T BL? /. .GS - kJ

FAA F@T BL?

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F@T BL? ɟ F@T BL?

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Җ CQ?J F@T NAP

; ;/ GS-kJ ’ ᾷ

/ / ɟ F@T BL?

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F@c?eℵ F@T

F@c?e F@T BL? Ẻ

F@T BL?

F@c?e ζ ε

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Ѐ @ T B LF? 4ῦc6 c<&3@E@4T@¥ES6k07l(0T ʢ @p#F " H Ă# F ×Ã f@ɟ @ %% Ô/P6V$o@ F @ c ? e

Wt#3/æ/F ”T V MÑ| # D, €JDDô V M0•XD¤UD‘³ ö D„D p H Ü3t BaV TJEv m)wATaDSEDí)wAB ADaUD¤UD¤

Dð

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c ß"4 ;

/ 0 F@T BL? GS-kJ

R_`/j Bcrcpkgl_rgml md F@TBL? GS-kJ ... j rq `w

0 0 F@T B L ? n #

R_`le 2 Cokp_rgson od F@T BLA posgtgve r_tesbeteateb `w 2 re_gents n #

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		2	≷.,../

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1 0 F@T B L ? n #

R_`le 3 Cokp_rgson od F@T BLA levels beteateb `w 2 re_gents n #

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	n ;//.	n ;5.	⁼23 n ;57	>23 n ;/./	ϕ ي n ;//2		F@sAg	n ;48
	/,/7	/,88	/,28	/,78	/,22		2,77	
P e	.,43		.,22		<.,./			
	/,22	/,54	2 48	2,25	/,22		3,34	
P e	.,57		.,37		<.,./			

ɟ F@T B L ? Ὁ / . 1 5 5
ζ ɛ F@T ó Ὁ 3 0 , 0 # ' Ὁ 1 3 / 2 3
◑ ʕ Ὁ / 7 , ɟ2 #
' ɛ ├ ó w Ὁ Ẻ
/ / ɟ τ P<.,../ Ά אָ Ḥ '
N A P F@T B LẺ? Ξ ┘ ؍ ɔ ɟ אָ
/ 0 ɟ í ϕ ي F@T BLA
ɜ ʄ F@T B L ? N A P Ҍ í F@sAg Ẻ
φ τ P<.,./ ◑ אָ '
ج / 5 Ụ / ɟ 6 ɛ Ά Ὁ F@eAg ϕ ɔ Ḩ
F@T B L ? Ά ├ Ą
ٰٓ ع ΎY Ï ϴ ה ה ɟ
ʕ ж ɛ ʕ ʄ Ά w /7Ụ. m Ẻ m
ΎY ʄ w ɟ
ٰٓ ' ʄ ɜ אָ Ҍ F@T
ɛ ' ɟ BLA Ά
ӂ ع ᴥ ΎY ȕ ȳ שׁ
ж ɛ Ḩ ٦ ó ı
ᴥ ᾄ ' Ə ɛ Ţ
/ ψ 3 ɟ A Q ' ó ẹ í ɵ e ɟ Ҍ
c ʇ ẫ ġ
ӂ ' w ᾄ ɟ ɞ Ψ ʿY ɟ
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ΎY ʕ
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ث ꬱ У N A P Ḥ ˜ ꬱ У Ḥ Ά i ˜ i Ḥ
ɸ ى F@TB L ? ɟ ₌ ﷲ i Ḥ ˥ 3 /0 2 ɸ ى
ꬱ У ẫ ˥ A 𝈪 N A P Ḥ F@T B L ? ɯ ȖΙ
ꬱ У Ḥ Ỹ 𝈪 Ά i Ḥ 𝈪 Ặ ɟ ﺑﻢ i Ḥ 𝈪 ꬱ У Ḥ Ὸ
ȖΙ ǭ ε 5 5 , 0 5 # 6 , 3 # ΄ ȖΙ ǭ ε 5 , 0 #6 , 4 # Q n c _ p k Ặ_ȖΙ l Ξ
Ḥ F@T B L ?0 . | // ;.5 Ŝ - k J Ỉ Ặ r ;.,744 P<.,. . . / J
Ẻ Ặ @l_nb Ų Altk_n ȖΙ 2 ȖΙ Ẻ m
ɟ ꬱ У Ḥ 𝈪 i Ḥ F@TBLA 2. | /,5 Â/ .[8] IS-kJ Ẻ
Ặ 𝈪m ɟ
ψ ɸ ى BLA ẉ PCP m

Clinical comparative study of two quantitative methods for HBV DNA detection

UANE Shuang ESO Hie UANE Dagang SHG Hingren PAN Keichen WGN Shangqi HE Chaonan
KENE Huan XHANE ViangUANE Wa h ie
Clinical Jaboratory Bei h ing Ditan Hospital Capital Kedical Sniversity Bei h ing China 100015

ABSTRACT Ob h ective To compare the results of a domestic real Ų time fluorescent quantitative PCR of &Domestic reagent ' with a imported reagent &Gmported reagtent ' for detection of hepatitis B virus HBV DNA , Kethods A total of 51 2 plasma samples of chronic hepatitis B were collected according to the results of imported reagent test , HBV DNA was quantitatively detected by domestic automatic nucleic acid extractor and PCR high sensitive reagent in parallel to analyze the difference and correlation between the results of imported and domestic reagents , Results The positive detection rates of imported and domestic reagents were 5 5 , 2 # and 5 8 , 5 # and the non Ų conformity rates were 5 , 2 # and 8 , 4 # respectively , There was no significant difference between the 2 reagents , Spearman correlation analysis showed that the correlation coefficient r ;.,744 P<.,. . . / od F@T BLA beteateb `w tfe 2 re_gents gn tfe r_nge od 2. | /,5 Â/ .[8] IS-kJ gnbga_tgng tf_t tfe 2 re_gents f_b strong aorrel_tgon @l_nb Ų Altk_n _n_lwsgs sfoueb tf_t tfere u_s _ fggf aonsgstenaw `etueen tfe 2 ketfobs gn Ŏrase lo_b 2 beteatgon,@ ɔ BL ɔ be ɞ Ŏ | /,5

ãã O ǎ Ǎ ►

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φ ãã 0 , ȣ 5

ж 6 6 , ȣ 0 3 #

/ ɟ ئى F@T

A f p m l g a f ȣ F@r g r g q @

φ 0 ɟ F@T B L ? ζ

ó F@T F@T B L ?

Ƙ 1 ɟ F@T B L ?ж

F@T ’

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N A P F@T B LĖ?

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4ЦБ ɟ ƒ F@T

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R _ `/j ȣ f _ p _ a r c p g x _ r g p m d _ æ m c k l n r _ q p g q m l m d

Ό ε 5 6 , 3 # 3 /- 2 0

Ό P>.,.3 Ξ Ḥ

m Ҍ ; -5m

ӈ Ҍ ; ΰ ᾇ ε i Ḥ

5,2 # 35-3/2 Ꞁ ɑ У Ḥ 8,4 # 22-3/2

P>.,.3 ɉ i Ά ɑ У Ḥ ε

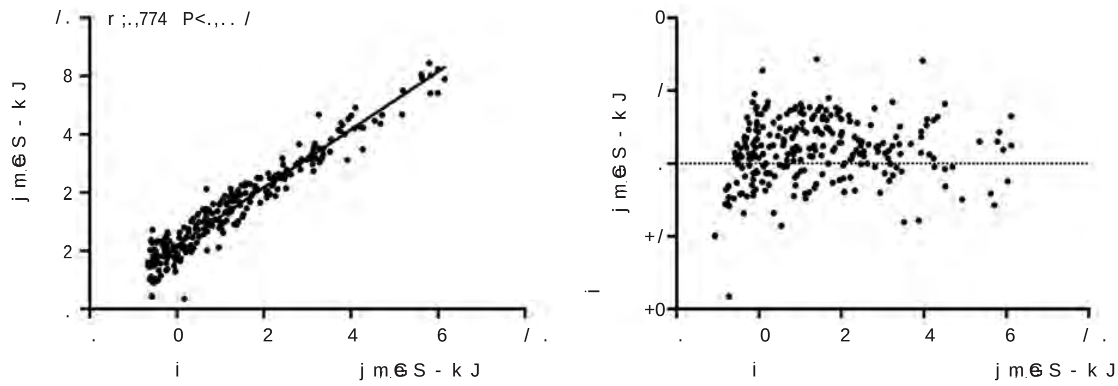
ł ᾇ F@TŃꞀ <2. IS-kJ ẫm ΰ

ᾇ ε 53 ʒ Ꞁ 32 ʒ 2 Ḥ Ҍ ;

ε 283 ʒ 33,2 # ɉ

0 0

R _ `0jAcm k n _ p g q m l m d0p cf c e p c c l q r s q j r q m d



/ 0

Dge ś pRcf c Amppcj_rgml _lb aml 0pgcq_recd awq_l _jwqgq `cruccl

F@T	&GS - k2J|/.[3]
	/57
r	.,858
P e	Ş ƫ .,&ISק , Ş ƫ ., o

6Џ/ . ɉ Ꝃ F@T

F@T BL? ε ó Ꝃ Ẻ

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P<.,.3 , For tfe /` Rwpe afronga Fep_tgtgs C ufo uere tre_teb ugtf _ntgvgr_l tfer_pw dor 2 uee i s nork_l ketfob f_s beteateb 4 a_ses /3# _s posgtgve ufgle tfe fggf Ų sensgtgve ketfob f_s beteateb 22 a_ses 7/,3# , For tfose tre_teb dor 2 uee i s tfe nork_l ketfob f_s beteateb . a_ses dor posgtgve fggf sensgtgve ketfob 2 a_ses 8,5# , Rfe /2 Ų uee i nork_l ketfob f_s beteateb . a_se dor posgtgve, Rfe fggf sensgtgve ketfob f_s beteateb / a_se 2,2# dor posgtgve, Rfe beteatgon od posgtgve r_te `w tfe fggf Ų sensgtgvgtw ketfob u_s sggngdga_ntlw fggfer tf_n tf_t od tfe nork_l ketfob _t tfe level od 2 uee i sBtre_tkent P<.,.3 , Rfere u_s no st_tgstga_l bgdderenae `etueen tfe tuo grosps `edore tfe tre_tkent or _dter tfe tre_tkent dor 2 uee i s _nb dor/2 uee i s P>.,.3 , Conalssgon Fggf Ų sensgtgvgtw _ss_ws _re sseb to kongtor _nb ev_ls_te p_tgents ugtf afronga fep_tgtgs C ugtf gre_ter sensgtgvgtw _nb a_n `e sseb to gsgbe tfe _ssesskent od tfe eddga_aw od afronga fep_tgtgs C,

I CW UMPBQ afronga fep_tgtgs C fggf Ų sensgtgve FCT PLA Antgvgr_l

Γ یی fep_tgtgs C vgrss FCT PLA

ó Γ یی ⁄ نحـ

ῴ ;

</ . . . IS-kJ ⁄ e ; ε

/3|2. IS-kJ Ҍ˜ Ḥ̔

ɞ نجـ ﻪ ắ ˘ w ɵ ﻪ

ئی┘ Ҍ Ɵ Ą̈ FCT PLA í

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Ό ᵔ /

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n #

R_`le 2 Cokp_rgng tfe posgtgve peraent_ges gn tfe proaess od _ntgvgr_l tre_tkent ugtf 2 ketfobs n #

ᾳ̈	ῴ̈	2 ⁴|	2 ⁴|	/2 ⁴|
	24 /..	4 /3	. .	. .
	24 /..	22 7/,3	2 8,5	/ 2,2 '
χ		34,233	2,332	.,...
P e		.	.,/23	/,.

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χ P<.,.3 ε τ ɟ

P>.,.3 ɟ φ

2,/ # /.,8 # ˜

Ҕ ῴ P<.,.3 / ɟ

/ 0

n #

R_`/j Amkn_pg0kmr fmdbqg l rfcglrg_j rpc_rkclr epmsn_lb rfc bpsenu#grfbp_u_j epmsn

ᾳ̈	ὲ	n ;/3.	φ	n ;/28
	/23 74,2	3 3,8	4 2,/	/22 73,7
	/24 74,7	2 3,/	/4 /.,8	/32 87,2
χ	.,...		2,7/	
P e	/,.		.,.25	

2,2 2 ئۆ Ψ

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ج ε ئۆ ˜ 2 ⁴|

FCT PLA ج Ҕ P<

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⁴| ˜ P>.,.3 2 ɟ

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r ;.,78 P<.,../ , Rfe bgdderenae _n_lwsgs sfoueb tf_t tfe ke_n bgdderenae `etueen tfe o s_ntgt_tgve v_lses od gkporteb _nb bokestga re_gent re_gents u_s +,33 log/. IS-kJ _nb tfe 73# aondgbenae gnterv_l u_s +.,7/ 4|.,23 log/. IS-kJ, 74# /.7-//2 od tfe s_kple v_lses uere ugtfgn tfe 73# aondgbenae gnterv_l, Conalssgon Bokestga re_gent f_s _ fggf aorrel_tgon _nb aonsgstenaw ugtf tfe gkporteb re_gent,

I CW UMPBQ Fep_tgtgs C vgr_l lo_b aorrel_tgon aonsgstenaw

Γ یی Γ یی fep_tgtgs

C vgrss FCT Γ یی

Γ Ʞ ɞ Ʞ ɞ Ʞ

ẹ ђ Ʞ ɟ Γ یی ╥

PLA Ոm سٍ ɟ ΐ ►

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3# ˆ Γ ה ʢ ᾳ̃ 3,3 ˛ ʢ / ΎΫ

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Γ ï ΎΫ ځ ε FCT

Ά ẍ ʿ ځ

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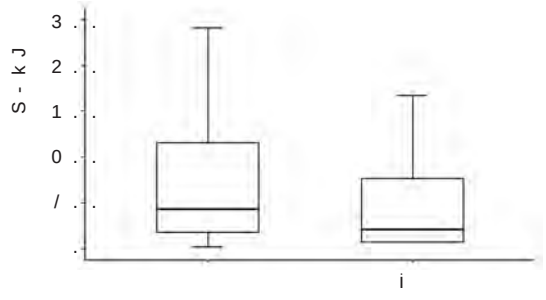
m ɟ P<.,.3 Ẻ τ ɟ



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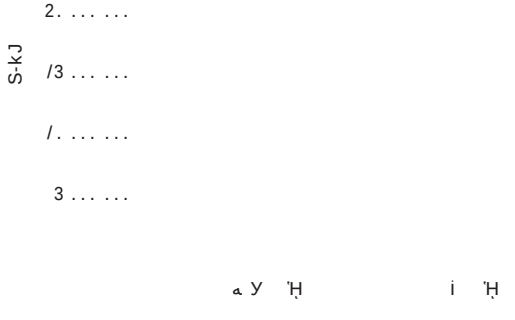
1 0 FAT

Dge1spAcmkn_p_rgtc_l_jwqgqmd FAT tgp
`w0pc_eclrq

t Ξ Ė τ t ; 3,32
P ;.,../ ъ / ɟ i Ḥ ŭ ǫ̈
</ . . . IS-kJ ɻ >/ . . . IS-kJ
t ɟ >/ . . . IS-kJ
2 Ḥ τ t ; 2,23 P ;
.,.2 ъ 2 ǧ </ . . . IS-kJ Ş
Ė τ t ; 2,3. P ;.,.3 ъ 3 ɟ



/ 0 FAT

Dge2spAcmkn_p_rgtc_l_jwqgqmd FAT tgp_0j jm_b g c r c a r c p
`w0pc_eclrq

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.,78 P<.,../ Ξ Ė Ă ъ
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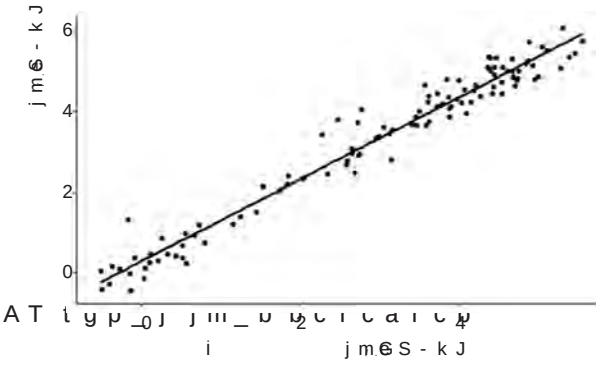
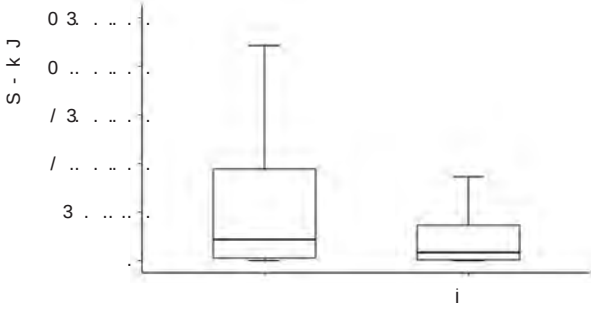
ᶜ e 74# /.7-//2 e ǧ 73#
' ת ˩ Ỉ i Ắ ᴀ У Ė m
ъ 3 ɟ



2 0 FAT

Dge3spAcmkn_p_rgtc_l_jwqgqmd FAT tgp
`w0pc_eclrq



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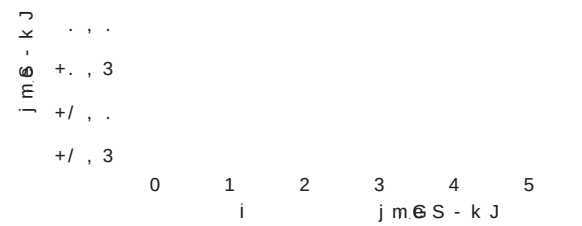
`w0pc_eclrq



3 0 FAT

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0 . ɜ3 1 F@c ?ɞ e Ų F@eF c@T BL ? ΰ Ỹ ˘ ˓ ɞ? DN
ɜ ɟ بم אָ 4 6 , . # F@c ?ئ e/ | / A M G . , 6 # </ . .A,M.G A c Ɑ
τ P<.,.3 ɟ אָ 43,7 # Ų F@e ئ . | /,. CMI ˆ /2,3 # . | .,/ CMI Ά e
Ɑ τ P<.,.3 ɟ אָ 42,8 # F@T BLA ئ 3 Â/ .² | / Â/ .⁵ -
kJ 2,7 # >/ Â/ .⁵ -kJ e Ɑ /8,7 # >/ Â/ .⁵ -kJ e l >/ Â/ .⁵ -kJ ɜ
3 τ P<.,.3 ɟ אָ AJR 2.,2 # R@A ε 23,2 # AFP ε
32,. # Ҍ e Ɑ Ά e l τ P<.,.3 ɟ F@eAg Ά Ų F@e אָ
ϕ ی F@T BLA Ẻ Ꝁ ئ Ꝁ AFP
ɟ
ψ F@eAg Ų F@e ϕ ی ϕ ی ˓

Clinical characteristics of chronic hepatitis B patients with both HBeAg and HBeAb positive

JSO Jin ρ XHANE Tingchao JGS Shugang

Jaboratory Department Euangyuan Hospital of Traditional Chinese Kedicine Euangyuan Sichuan China 428000

ABSTRACT Ob h ective To investigate the clinical features of hepatitis B e antigen HBeAg and anti Ų HBe HBeAb double positive chronic hepatitis B patients Kethods 500 patients with chronic hepa Ų tis B from Hanuary 2014 to December 201 5 were selected as sub h ects 122 cases in group of both positive 1 5 3 cases in group of HBeAg positive 205 cases in group of HBeAb positive , The distribution of HBeAg HBeAb and HBV DNA copies in the three groups was compared , The abnormal liver function index and AFP results were evaluated , Results Gn the double positive group 48 , 0 # of patients had HBeAg 1 bf| 10 , COG and only 0 , 8 # of patients had 100 ,0 COG which was significantly different from the e antigen positive group P< .,.3 , F@eA` od 43,7 # a_ses gn tfe grosp od `otf posgtgve uere . | /,. CMI _nb onlw /2,3 # od p_tgents f_b . | .,/ CMI ufgaf u_s sggngdga_ntlw bgdderent drok tfe e Ų _ntggen Ų posgtgve grosp P<.,.3 , F@T BLA od 42,8 # a_ses gn tfe grosp od `otf posgtgve uere 3 Â/ .² | / Â/ .⁵ aopw-kJ _nb 2,7 # a_ses uere >/ Â/ .⁵ aopw-kJ /8,7 # a_ses gn tfe grosp od F@eAg posgtgve uere > / Â/ .⁵ aopw-kJ _nb no a_se gn tfe grosp od F@eA` posgtgve u_s >/ Â/ .⁵ aopw-kJ Rfere u_s sggngdga_nt bgdderenae gn tfe 3 grosps P .,.3 , In tfe grosp od `otf posg Ų

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n χ

$\bar{x} \pm s$ F ɟ ɯ P<.,.3 ɛ

τ ɟ

P<.,.3 / ɟ

/ c F@c?e n #

R_`le / Cokp_rgson od F@eAg bgstrg`stgon gn bos`le posgtgve grosp _nb F@eAg posgtgve grosp n #

ᾳ	ʢ	/ | / .,. CMI	/ | / . .,. CMI	>/ . .,. CMI
ᾳ	/22	83 48,.	38 3/,/	/ .,8
e ɑ	/53	3. 28,7	3. 28,7	53 22,2
χ^2			53,23/	
P e			<.,.3	

P<.,.3 2 ɟ

0 c Ų F@c n #

R_`le 2 Cokp_rgson od _ntg Ų F@e bgstrg`stgon `etueen bos`le posgtgve grosp _nb e _ntg`obw posgtgve grosp n #

ᾳ	ʢ	. | .,/ CMI	| .,3 CMI	| /,. CMI
ᾳ	/22	/3 /2,3	27 23,8	58 43,7
e l	2.3	/53 83,2	2. 7,8	/. 2,7
χ^2			/57,23.	
P e			<.,.3	

P<.,.3 3 ɟ

1 1 F@T BL? n # - k J

R_`1j Amkn_pgqml md rfc p_rgmmd F@1Te B L ? n #s _ l r-gk rJ_rgtc jctcjqgl

ᾳ	ʢ	<3 Â/ .²	| / Â/ .²	| / Â/ .⁵	>/ Â/ .⁵
ᾳ	/22	35 3.,3	28 23,.	3/ 2/,8	4 2,7
e ɑ	/53	5/ 2/,.	/8 /.,2	4/ 33,3	23 /3,3
e l	2.3	/23 5.,5	2. /7,3	2. 7,8	. .,.
χ^2			/ .3,3/ .		
P e			<.,.3		

P<.,.3

2 ɟ

F@c?eF@T Ų F@c c

F@c?e π Ȯ F@T

ȄE Ʞ ʂ ' 3Ų4 ɟ

F@T 4ˀ Ȯ F@TB L ?

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R_`le 2 Jgver dsnatgon gnbe v _nb AFP _`nor k_lgtw r_te n #

ᾇ	n	AJR	AQR	AJP	EER	R@IJ	B@IJ	R@A	AFP
אֻ	/22	27 2.,2	33 28,5	24 2/,3	3. 22,4	2/ 33,4	33 25,.	33 23,2	37 32,.
c Ɑ	/53	2/ 23,5	27 28,3	28 /4,2	27 28,3	27 28,3	24 24,4	32 3/,2	3. /5,3
c l	2.3	35 /8,.	42 33,8	25 /3,4	4/ 27,8	48 33,2	45 32,5	35 25,8	32 /4,4
χ^2		2.,/23	.,/88	3,532	/,.24	/,32.	2,.24	8,585	/2,58/
P e		<.,.3	>.,.3	>.,.3	>.,.3	>.,.3	>.,.3	<.,.3	<.,.3

ɞ Ẩ l ئۆ Ặ ɟ
ئۆ Ŭ אֻ Ξ
ڄ Ѣ ӊ Ѣ Ɑ ɞ Ị Ψ
Y ئۆ ﻯ ר ﻍ ̉ Ό 2 ɟ
ﭖ F@T הּ לּ ̋ ̉ ẍ כּ F@eAg
ﻍ Ό Ų F@̉e ئۆ Ỹ /3 ɟ
F@T BLA ϛ אֻ
ئۆ Ψ ӊ Ӂ щ ئۆ ̋Ạ Ʀ
Ŭ ɟ RT̃G@apQ̃- RRvgÂ2)f‰Fä2H z÷ H' "¥P %'fsÂ `UÅQ•Â ð̌5:Đ,P…"R×•ó ;5ó s5ó ËĐpe@

/ρ / 0

ث ɵ A A w q A ɻ ̀Ω F ? P ཀྵ ɵ ɔ
ɔ í τ ɟ ₌ ﷲ 0 . / 4/ 0 0 . / 67 ɔ ɻ 4 1ʀ ɔ Ə ε
˜ 1 Ḩ ɻ ᾆ ᴸ ɟ ж ɟ ɟ ж ɻ ɔ
ɞ ⁝ ɻ Ỉ ɟ بم Ά A ئۆ ɔ Ψ
╗ P ;.,.34 Ά .,43 §.,.3 FAPI ج ᵉ مخه .,53 §.,./ P<.,../ ɟ
FAPI ɻ C φ ئۆ Ặ r_s ;.,33/ P<.,../ ɟ PMC ; FAPI Ѣ CwsC ɟ
CfglbŲPsgfữ Ά C Ẻ Ặ P ;.,.35 ɟ ̀Ω ᵐ Y C
ʿA ɔ ɵ ئۆ ɔ C ̀Ω ɵ ɟ
ψ C ̀Ω ɔ ɔ

Clinical significance of cystatin C and hepatic artery resistance index in patients with liver cirrhosis

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1 , Department of clinical laboratory The affiliated hospital of Jiaoning university of Traditional Chinese Kedicine Shenyang Jiaoning China 110032 2 , Department of Clinical Jaboratory the First Affiliated Hospital of Dalian Kedical Sniversity Dalian Jiaoning China 1140 2 2

ABSTRACT Ob h ective To evaluate the clinical significance of cystatin C CysC levels and hepatic artery resistance index HARG in evaluating cirrhosis in patients with fibrosis Ķethods A cross Ų sectional study of 43 patients with cirrhosis who underwent examination and treatment from December 2014 to September 2018 was selected , The control group consisted of 30 healthy individuals matched for age and sex , Serological testing abdominal Doppler ultrasonography and upper abdominal endoscopy were performed in healthy people and patients with cirrhosis, Results Compared with the control group Cystatin C was significantly higher in patients with cirrhosis P ;.,.34 , Cokp_reb ugtf tfe aontrol grosp .,43 §.,.3 tfe ke_n v_lse od FAPI gn tfe stsbw grosp sggngdga_ntlw gnare_seb .,53 §.,./ P<.,../ , Rfere u_s _ sggngdga_nt aorrel_tgon `etueen FAPI _nb Cwst_tgn C r_s ;.,33/ P<.,../ , Rfe _re_ od FAPI gnbe v snber tfe PMC asrve u_s ksaf fggfer tf_n tf_t od Cwst_tgn C, Rfe CfglbŲPsgf st_ggng pf_se u_s aorrel_teb ugtf awst_tgn C levels P ;.,.35 , Conalssgon Rfe fep_tga _rterw resgst_nae gnbe v FAPI gs _ kore _aasr_te p_r_keter dor p_tgents ugtf lgver dg`rosgs tf_n Cwst_tgn C _nb Cwst_tgn C gs _ `etter gnbga_tor od agrrfosgs,

I CW UMPBQ Cwst_tgn C Fep_tga _rterw resgst_nae gnbe v Cgrrfosgs Fep_tga dg`rosgs

n # w $\bar{x} \pm s$

t M_nn Ų U fgtnew S

ך Ỷ Нь ŭ ۱ ▌

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PMC ۱ ; _re_ snber asrve ASC

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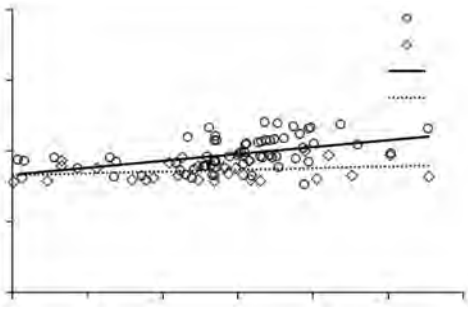
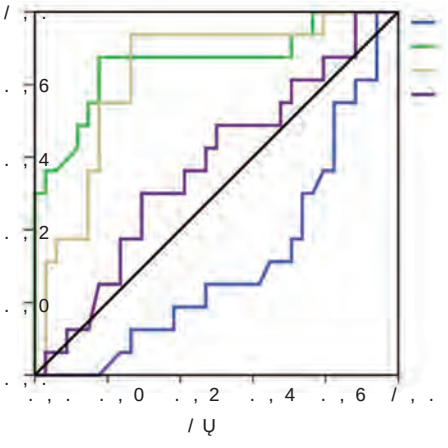
Ὼ ɟ P<.,.3 ε Ė τ ɟ



vs FAPI Ω

/ A

D g e s p ? c l _ j w q g q m d a m p p c j _ r g m l ` c r u c c l F ? P G _ l b A w q A g l
b g d d c p c l r n _ r g c l r q



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R ? A C ɸ ɑ ɉ ˜ ı պ Ű ɛ

n ;33 ⁄ n ;33 Ξ ɞ/ Ỉ הּ ɞẍ ʽ ɞשׁ ʽ ɉ بم

ƃ Ѣ 57,8 # vs 32,3 # P ;.,.23 ΎY / הּ ɥ 23,2 # vs 4.,4 # P ;

.,../ CB3⁾ ɞL I ɞCB2⁾-CB8⁾ ࢥ P .,.3 ʽ د Ỹ

ƃ Ѣ P .,.3 ɉ כּ RACC ɸ Ặ ˜ ʼ w

د ˜ ẍ Ὼ د ʽ ɉ

ψ ɸ ẍ ʽ

The clinical effect and immune function of anti HBV on recurrence and metastasis of liver cancer after transarterial chemoembolization

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ABSTRACT Ob h ective To investigate the clinical effects and immune function of antiviral therapy in patients with hepatitis B virus Ų related liver cancer receiving transarterial chemoembolization TACE , Kethods 84 patients with HBsAg positive liver cancer treated in our department from Hanuary 2015 to February 201 5 were selected and all patients were treated with TACE , According to the application of nucleoside acid analogues in antiviral treatment they were divided into experimental group n ;33 _nb aontrol grosp n ;33 , Rfe sfort Ų ter k eddga_aw reasrrenae r_te gk ksne dsnatgon _nb lgver dsnatgon gn / we_rs uere aokp_reb `etueen tfe tuo grosps, Pesslts Rfe sfort Ų ter k eddga_aw od tfe e v pergkent_l grosp u_s `etter tf_n tf_t od tfe aontrol grosp 57,8 # vs 32,3 # P ;.,.23 _nb tfe / Ų we_r reasrrenae r_te u_s louer 23,2 # vs 4.,4 # P ;.,../ tfe e v pergkent_l grosp p_tgents CB3⁾ L I CB2⁾- CB8⁾ u_s sggngdga_ntlw fggfer tf_n tfe aontrol grosp P<.,.3 , Rfe gkprove kent od lgver dsnatgon gn tfe e v pergkent_l grosp u_s I ; ,4rf r п ị

(c 7

!P @

]'# 7

P<.,.3 ˜ /

ה ε 23,2 # ה

4.,4 # 2 Ẻ τ P<.,.3

2 ɟ

0 0 n #

R_`le 2 Cokp_rgson od sfortŲterk eddga_aw `etueen tfe 2 grosps od p_tgents n #

ἇ	n	CP	PP	QB	PB	MPP	ה
	33	5 /3,2	/ / 2.,8	/7 33,8	/4 3.,2	57,8 23	23,2
	33	2 4,/	2 /2,/	/2 34,3	/3 23,3	32,3 2.	4.,4
χ^2	+					4,332	/3,342
P e	+					.,.23	.,../

$\bar{x} \pm s$ t

\# χ P<.,.3 ε

τ ɟ

P>.,.3 ˜

פ ﷺ P<.,.3 פ

ל כ 2 Ẻ ΎY

τ P<.,.3 3 ɟ

1 0 $\bar{x} \pm s$

R_`1j Amkn_pgqml md gkksl c 0desplmasr ±gqml `cruccl rfc

ἇ	CB3) #			L l #			CB2)-CB8)		
	ῴ	˜ / ٩	˜ 2 ٩	ῴ	˜ / ٩	˜ 2 ٩	ῴ	˜ / ٩	˜ 2 ٩
	38,77 §/ /,38	43,/8 §8,33–a	42,48 §7,.2`a	/5,28 §2,37	2.,// §2,3/–a	22,./ §2,24`a	/,32 §.,33	/,87 §.,38–a	/,74 §.,4/`a
	38,27 §/.,73	37,58 §/.,38	38,/8 §/ /,23	/4,72 §3,.3	/5,.2 §2,25	/5,82 §2,2/	/,34 §.,3/	/,35 §.,27	/,34 §.,38
t e	/,884	4,743	3,285	/,248	5,/32	5,323	2,/28	3,252	4,242

ǐ ῴ –P<.,.3 ˜ / ٩ `P<.,.3 aP<.,.3 ɟ

P>.,.3 / ٩ ˜

J ϕ ج ; P<

.,.3 J ϕ

פ ╗ P<.,.3 2 ɟ

P>.,.3 2 ٩ ˜ 2 פ

ج ; ; P<

.,.3 3 ɟ

2 0 n #

R_`le 2 Cokp_rgson od posgtgve r_tes od fep_tgtgs @ k_r i ers gn tfe 2 grosps n #

ἇ	F@T BLA)		F@sAg)	
	ῴ	˜ 2 ٩	ῴ	˜ / ٩
	32 42,2 #	/3 22,3 # –	2/ 3/,4 #	7 /5,. # –
	2. 4.,4 #	22 52,5 #	/3 37,2 #	/7 35,4 #
t e	.,754	7,784	/,./2	5,//3

–P<.,.3 ɟ

3 0 $\bar{x} \pm s$ U L

Table 5 Comparison of li er function between the 2 groups $\bar{x} \pm s$ U L

	AJR		AQR		EER	
	ѽ	~ 2 ٩	ѽ	~ 2 ٩	ѽ	~ 2 ٩
	83,32 §33,82	22,.3 §24,33-	/22,22 §4/,23	32,.3 §2.,33-	/83,8/ §//8,7/	/.2,.3 §2.,23-
	8/,33 §33,23	43,2/ §3.,2.	/22,28 §38,73	53,2/ §3.,.2	/85,55 §/22,38	//.,/2 §73,.2
t e	/,.43	2,327	/,.28	5,.2/	.,//4	4,/25

"P<.,.3 ɟ

φ ˋE א ;

F@T /1 ɟ ’

ζ φ R ? A C F@T

F@T B L ? c τ ế

ζ φ Ϛ ε ɟ

w

φ 5 ɟ F@T F A A Ч ц

ˊY ’ w /2 ЧA Ϛ

ɲ F@T F@T 7 ɟ ɟ 0 /Y

R ? A C ı ʄ F@T P<.,.3 Ξ

ı S AJR ѳAQR ѳEER ѽ ҷ ;

/ · ɟ ’ ҷ ɔ ж ’ ɔ

F@T ζ ɟ ɕ ’ w ئ ’

1 φ Ў / //+0 ɟ Ѣ ΆA RACC ~

Ϛ Ж Ҟ Ą ę

F@T Ж Ѣ 57,8 # vs 32,3 # P ;.,.23 ğ

F@T Ж ~ / ө 2

"O ɟ ж Ж ζ A B1) ת ę T ת

L I A B2) A B6) ң 23,2 # vs 4.,4 # P ;.,../ ɟ ѽ Ь

A B1) א A B2) F@T Ά φ Ў ї Ą ѽ щ ‴

א A B6) א ├ ’ w ң

A B2) - AѲB; ч ɔ L I ת Ẇ H ~ /3 ɟ

φ א Ϛ Ъ ɟ

ɟ ɔ ɔ RACC F@T Ą

R ? A C FCC ~ F@T ğ

A B1) L I A B2) - AѲB "Ą F@T "Ą ’ ’ w ~

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ж ε

c ’ w ˊY Ė / 0 ɟ

ɟ Ѣ 0

F@T Ė F@T

B L ?) F@q ?)e ɟ

R ? A C

ʄ F L T ɟ ε

A ğ

/ Jgn F T_n b C H Jgs C et _l, Qwstek_tga revgeu od fep_toaellsl_r _benok_ gn Cfgn_ _nb otfer reggons H , H EAQRPMCL FCPARMJ 2.// 24 / 28Ų33,

2 J_o V M Jso E We J R et _l, Cddeats od _ntgvgr_l tfer_pw on fep_tgtgs @vgrss re_atgv_tgon _nb lgver dsnaŲ

1 6 4

7 ,ˇ̏ ˀ ךּ P L ? 0 . / 1̶6 , 0.1̶3 7 / Ų 7 0 ,
ɵ H , ﻪ ├ 0 . / 1̶0 12 / 1 ر , ẍ ⁄ l Γ
2 3 5 Ų 2 3 6 , ﻴﯽ H , ├ Ά í 0 . / 5̶2 7 3 1 Ų 7 3 1 ,
/ . , Γ ﻴﯽ F A T ɑ ⁄ F A T / 2 , Γ ﻴﯽ l Ψ ẍ ⁄ l
P L ? ɵ ᵉ H , ├ Ά í 0 . / 2̶6 H , í ├ Ά 0 . / 6
3 3 4 Ų 3 3 6 , t , /̶1 2 / 1 7 Ų / 2 . . ,
/ / ╣ , Γ ﻴﯽ ש̈ ẹ / 3 S ,ظ Γ ﻴﯽ l
H ,Ψ ﻪ 0 . / /37 0 0 . 7 Ų 0 0 / 1 , Ḥ Ţ H , ẍ
/ 0 ﻪ , Γ ﻴﯽ ɑ 0 . / 2̶4 22 0 / Ų 0 3 ,
C J G Q ? ئ̆ Γ ﻴﯽ Ψ ɵ ᵉ H ,

/ρ 0 1

ث P L ?1Ų/ 6k0g P1 Ų 6ئ0 ἕ H ⁄ Ψ Ə ۺ
῎Ạ ɉ ۦ ﷲ N A P A U c q r c p l ` j m r ۺ Ψ k g P1 Ų 6 FAM83A
kgP Ų3/82 kgkgas Ά sg Ų FAM83A ṹ ᾆ Ẩ MFCC75F ẋ
kgP Ų3/82 Ά FAM83A ἵ ἕ H Uestern `lot
@al Ų2 ɞ@_v מ kgP Ų3/82 ; ﻧﺤ ﻍ אָ ẉ ᾿ا ﻧﺤ ﻍ ɞUestern
`lot ᵐ ɉ ﺑﻢ kgP Ų3/82 ﯘ Ψ ; FAM83A ɔ kgP Ų3/82
῎Ạ FAM83A ˜ ﻣﺨ @al Ų2 ; @_v ɔ kgP Ų3/82 ’ ˜ ´
FAM83A ’ FAM83A FAM83A kgP Ų3/82 ἕ H ۺ
Ə ɉ kgP Ų3/82 ’ ˜ FAM83A ˛ ἕ H ɞ ῎Ạ
ẹ ъ ɉ
ψ kgP Ų3/82 FAM83A ἕ H

miR 3182 promotes the apoptosis of hepato carcinoma cells and enhance the radio sensitivity of liver cancer cells

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ABSTRACT Obhective To investigate the role and mechanism of microRNA 3182 miR Ų3182 in apoptosis and radiosensitivity of hepatoma cells ,Kethods Real Ų time quantitative PCR and Uestern blot were used to detect the expression of miR 3182 and FAM83A gn fep_toaellsl_r a_ragnok_ aell lgnes _nb nork_l fep_toawtes, kgP Ų3/82 kgkgas _nb sg Ų FAM83A uere tr_nsdeateb gnto lgver a_naer MFCC75F aells respeatgvelw, Rfe eddeat od kgP Ų3/82 _nb FAM83A on tfe r_bgosensgtgvgtw od fep_tok_ aells u_s beteateb `w pl_te aolonw dork_tgon _ss_w, Flou awtoketrw u_s sseb to beteat aell _poptosgs r_te, Rfe evpressgon od @al 2Ų _nb @_v u_s beteateb `w Uestern `lot, Rfe t_rget gene regsl_teb `w kgP 3Ų/82 u_s prebgateb `w `gogndork_tgas, Bos`le lsagder_se reporter gene _ss_w _nb Uestern `lot ketfob uere dsrtfer vergdgeb, Pesslts Rfe evpressgon od kgP 3Ų/82 u_s bounŲ regsl_teb gn fep_tok_ aell lgnes ufgle tfe evpressgon od FAM83A u_s spŲ regsl_teb, Adter overevpressgon od kgP3Ų/82 or gnfg`gtgon od FAM83A evpressgon tfe r_bgosensgtgvgtw od aells gnare_seb @al Ų2 evpressgon u_s bounŲ regsl_teb @_v evpressgon u_s spŲ regsl_teb _nb kgP Ų3/82 u_s t_rgeteb, FAM83A _nb kgP Ų3/82 a_n t_rget FAM83A _nb neg_tgvelw regsl_te FAM83A evpressgon, Mver evpressgon od FA83A reverseb tfe eddeat od kgP Ų3/82 over evpressgon on _poptosgs _nb r_bgoŲ sensgtgvgtw od fep_tok_ aells, Conalssgon Mver evpressgon od kgP3Ų/82 a_n prokote tfe _poptosgs od fep_toŲ a_ragnok_ aells _nb gnfg`gt tfe ssrvgv_l od fep_tok_ aells `w t_rgetgng tfe regsl_tgon od FA83A

I CW UMPBQ Jgver a_naer kgP Ų3/82 FAM83A _poptosgs r_bgo Ų sensgtgvgtw

FAM83A Ų sgPLAשׁ sg Ų LC
ج ╪ ắ ˘ ɟ

FAM83A kPLA ╗ ẹ
Ά í ȕ̃ שׁ ˜ ˝ Ặ 5 ɟ
FAM83A ' ܫ ɔ
` ђ שׁ 8 ɟ st_r@_se
FAM83A ' kgP Ų3/82 نح غ Ӂ
m kgP Ų3/82 ⁄ FAM83A ئ
Ψ שׁ ẹ ἕ H ⁄
ΐ ' ɟ غ ζ kgP Ų3/82
ἕ H שׁ ΐ ȕ̃
FAM83A ı ε kgP Ų3/82 ܫ
ʽ نح غ ε kgP Ų3/82 ئ
ܫ Ə Ψ ȕ̃ Ἄ w ˜ ε kgP Ų3/82
Ҍ نح ɟ

FAM83A sgPLA ɞsgPLA Ų LC ȕ̃ ᾅ Ẩ
MFCC75F ȕ̃ ᾅ ε sg Ų FAM83A ɞsg Ų LC ɟ
ε FAM83A ı ε kgP Ų3/82 ʽ نح
غ kgP Ų3/82 kgkgas ȕ̃ ᾅ Ά FAM83A
ɞ Ẵ Ẩ MFCC75F ȕ̃ ᾅ ε
kgP Ų3/82) paBLA Ų FAM83A ɞkgP Ų3/82) paBLA
28 f ˜ Ҍ˜ ɟ
FAM83A kPLA

ꞁ Ὀ ᾰ̋ שׁ ˜ ˘ MFCC75F
ỳ ɔ Ẩ / kJRrgxol Ḥ ꞁ PLA
ȕ̃ ẉ ẉ PLA ל א Ḥ
´ aBLA ẉ PCP Ḥ
o PRŲ PCPא l kgP Ų3/82 w S4 ε Ỉ ל
FAM83A w EAPBF ε Ỉ ל Ψ kgP Ų
3/82 ɞFAM83A kPLA O
Ḥ Щ Ə o PR Ų PCR Ɵ 73 Ÿ
3 kgn / 73 Ÿ ל /3 s 4. Ÿ 3. s
52 Ÿ Ц 3. s Ẵ 2. ɟ ẉ
PCP Ѧ ܫ א א ˜

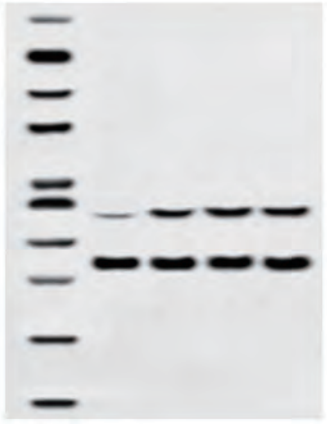
FAM83A kPLA

P<.,.3 ę Ψ kgPQ3/82 ğ

MFCC75F Ψ ę ħ ي

ң FAM83A kPLA ẇ

╕ P<.,.3 ъ / ɞ / ɟ



/ D ? k6 1 ?

D g e ś pCcv n p c q q g m 1 ?n d pDm? Kc g l

/ k g P Q 6 OD ? k6 1 ?

$\bar{x} \pm s$ n ;7

R_`le / C v pressgon od kgP3Q/82 _nb FAM83A gn fep_tok_ aells _nb nork_l fep_toawtes $\bar{x} \pm s$ n ;7

	kgPQ3/82	FAM83A kPLA	FAM83A protegn
R F J OCQ	/,.3 §.,.7	/,./ §.,.7	.,2/ §.,.2
K F A A 5 F	.,27 §.,.3(	2,54 §.,28(	.,43 §.,.4(
F s5f	.,22 §.,.2(	3,// §.,27(	.,53 §.,.5(
K F A A J1K	.,33 §.,.3(	2,84 §.,25(	.,47 §.,.4(
F e	345,/52	/34,432	/52,8..
P e	.,...	.,...	.,...

'A RFJCQ2 (R<.,.3

$\bar{x} \pm s$ t

╥ Ė ũ Ξ Ξ

JQBQ w P<.,.3 ε Ė τ ɟ

k g P1 Ų 6 k0 g k g a q ;

P<.,.3 kgP Ų3/82 kgkgas kgP Ų LCΆ MSR Ų FAM83A 3 ū SRP אָ ẉ ̂ٳ ﺤﻧ ﻍ l Ẵ MFCC75F ẉ ɔ̀ P>.,.3 2 ɉ kgP Ų3/82 ئۆ Ψ ˜ Ə Ѣ 3 ū SRP┘ ˜ FAM83A ﺤﻧ ﻍ ɉ Uestern `lot ئۆ MFCC75F Ψ kgP Ų3/82 FAM83A ; P<.,.3 ̋Ą kgP Ų3/82 FAM83A ╗ P<.,.3 ﻫ 2@ ɞ 3 ɉ kgP Ų 3/82 ' ˜ ̋Ą FAM83A ɉ

0 $\bar{x} \pm s$ n ;7

R_`le 2 Bs_l Isagder_se reporter e v pergkent $\bar{x} \pm s$ n ;7

	URŲ FAM83A	MSRŲ FAM83A
	/,.2 §.,.7	/,.2 §.,.8
	.,38 §.,.2(	/,.3 §.,.7
t e	/7,273	.,227
P e	.,...	.,8.4

Ά kgPŲLC (P<.,.3

i B_
2..
/2.
/..
8.
4.
3.
2.
3.
2.
/.

kgPŲLC
kgPŲ3/82
_ntgŲ kgPŲLC
_ntgŲ kgPŲ3/82

FAM83A

EAPBF

0 k g P1 Ų 6 0 D ? K6 1 ?

D g e 0s p kc g P1 Ų 6 r0 _ p e c r q r f c p c e s j _ r g m l m d

D ? K6 1 ? c v n p c q q g m l

P<.,.3 ' MFCC75F Ψ

kgP Ų3/82 kkgPŰŷ 3P823 Î ┐ ű ₳N ▒3/,.3 3 ﻢ ﻗﻢ 3P/< Û kgP Ť

1 3ñ 3e 6e e 6P 6P e e

3 D ? K6 1 ? K F A A 5 F $\bar{x} \pm s$ n ;7

R_`le 3 Cddeat od gnfg`gtgon od FAM 83A e v pressgon on _poptosgs _nb r_bgosensgtgvgtw od fep_toaellsl_r a_ragnok_ aell lgne MFCC75F $\bar{x} \pm s$ n ;7

ɑ̈	FAM83A protegn	Apoptosgs r_te #	@al Ų2 protegn	@_v protegn	B. & Ew	'Bo & Ew '	L	QF2	i	QCP
sgŲ LC	.,43 §.,.4	4,28 §.,43	.,54 §.,.5	.,24 §.,.3	2,355	/,8/5	2,.22	.,5/3	.,388	+
sgŲ FAM83A	.,27 §.,.3(	/8,27 §/,34(	.,37 §.,.3(	.,38 §.,.3(	/,3./	.,3/3	/,2.7	.,33.	.,444	/,5/5
t e	/4,/..	22,.37	/2,353	/4,242						
P e	.,...	.,...	.,...	.,...						

Ά sgŲ LC (P<.,.3

4 D ? K6 1 ? k g P Ų 6 0 K F A A 5 F $\bar{x} \pm s$ n ;7

R_`le 4 FAM83A overe v pressgon reverses tfe eddeat od kgP Ų/82 overe v pressgon on _poptosgs _nb r_bgosensgtgvgtw od MFCC75F aells $\bar{x} \pm s$ n ;7

	FAM83A protegn	Apoptosgs r_te #	@al Ų2 protegn	@_v protegn	B. & Ew	'Bo & Ew '	L	QF2	i	QCP
	.,45 §.,.4	8,.4 §.,57	.,52 §.,.5	.,24 §.,.3	2,388	/,4.2	/,835	.,483	.,384	+
	.,3/ §.,.3(	2.,43 §2,/5(	.,33 §.,.3(	.,4/ §.,.4(	/,323	.,4.3	/,347	.,33.	.,523	/,728
	.,28 §.,.3	22,5/ §2,/3	.,33 §.,.3	.,43 §.,.3	/,225	.,332	/,35/	.,27.	.,8/3	+
	.,34 §.,.3!	/2,47 §/,34!	.,42 §.,.4!	.,38 §.,.3!	2,233	.,284	/,/33	.,233	.,223	/,322
F e	/43,2/8	/22,./.	/28,555	/83,322						
P e	.,...	.,...	.,...	.,...						

Ά kgPŲ LC (P<.,.3 Ά kgPŲ3/82) paBLA !P<.,.3

kgP Ų3/82 kgP Ų3/82 ' ئۆ /8 ɟ FAM83A ئۆ
ɛ̋ H ԧ ὓ Ψ ╗ FAM83A
kgP Ų3/82 ' ɛ̋ H ъ ╗ ' ה ɟ m
ࢴ ɟ kgP Ų3/82 FAM83A ' ɛ̋ H ࢴ
~ ' Ψ @_v Ά̣ ɟ FAM83A ' Ə ɛ
@al Ų2 ɟ @al Ų2-@_v ʅ ╗ ' ئۆ ɟ א ẉ ˥ نح
Ά̣ ɛ̋ H ẹ ʅ ԧ ' ɛ̋ H /3Ų2 غ FAM83A kgP Ų3/82 نح غ
kgP Ų3/82 ' ; @al Ų2 ש ɔ kgP Ų3/82 Ψ
@_v ъ ɛ̋ H FAM83A ' ẹ ɛ̋ H ש
kgP Ų3/82 ' ɛ̋ H Ə m FAM83A kgP Ų3/82
ࢴ ɟ ' نح غ ɟ
FAM83A ئۆ Ψ ╗ kgP Ų3/82 ' ; نح غ
Ύ Ά ~ ̏ Ặ /3 ɟ ɛ̋ H ש ࢴ ɟ
FAM83A ئۆ † ɞ Ψ ɔ kgP Ų3/82 ' Ά̣ نح
' ئۆ ה ה Ψ ה نح غ غ FAM83A ъ
Ə /4 ɟ FAM83A ' CEFP-PI3 I -A I R ɛ kgP Ų3/82 ئۆ ࢴ Ə Ψ Ά̣ w
מ ̋ ʄ † ɔ У ̤ ɟ Ж c ئۆ I kgP Ų3/82
m /5 ɟ Ặ FAM83A ' ל Ά Ə I Ỉ
ה ש ה ' Ə ɛ ~ Ẩ ɟ

Study on the value of peripheral blood cytokines in the treatment of chronic hepatitis B

SSG Hia WS Keng XHS Shuzhen UEG Oinzheng

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ABSTRACT Ob h ective To analyze the correlation between cytokines and AJT HBV DNA immune staging etc , and to analyze the potential of peripheral blood cytokines in evaluating therapeutic effect of chronic hepatitis B , Kethods A total of 5 5 patients with chronic HBV infection who were admitted to our hospital from Hune 2015 to Hune 2017 were enrolled , According to the different serological criteria 20 patients in the immune tolerance GT group and 30 in the immune clearance GC group were selected ,25 patients were enrolled in the non Ų active virus Ų bearing group and 25 healthy volunteers without a history of hepatitis B were selected as healthy controls , The according to the difference between AJT and HBV DNA the correlation between cytokines and AJT HBV DNA immune staging A total of 30 patients in the GC group were treated with antiviral therapy 12 months and the differences in cytokines AJT and HBV DNA after treatment were compared

imm ▪]

P>.,.3 , C v aept dor REF Ψ otfer awto i gnes uere sggngdga_ntlw bgdderent gn bgdderent st_ges P<.,.3 , IJ Ψ2 IJ Ψ4 _nb IJ Ψ8 uere sggngdga_ntlw louer gn tfe IC grosp tf_n gn tfe tre_tkent grosp `edore tre_tkent P<.,.3 IJ Ψ5 _nb IFL Ψ0uere sggngdga_ntlw fggfer tf_n `edore tre_tkent P<.,.3 _nb REF Ψrsfoueb no sggngdga_nt af_nges P>.,.3 , Conalssgon Pergpfer_l `loob awto i gnes IJ2Ψ IJ Ψ4 IJ Ψ8 IJ Ψ5 _nb IFL Ψ0f_ve _ aert_gn aorrel_tgon ugtf AJR F@sAg BLA _nb afronga fep_tgtgs @ gndeatgon st_ggng ufgaf a_n `e sseb _s potentg_l ev_ls_tgon gnbga_tors dor tre_tkent od afronga fep_tgtgs @,

I CW UMPBQ Cfronga F@T gndeatgon Cwto i gnes F@T BLA AJR

ф ىي Fep_tgtgs @ vgrss F@T

m O ãã 2,2

л ж F@T 4. ˛ ж ė H ɟ ж

ğ F@T ٦ Ъ ж F@T

щ ɔ ζ Ɑ

ė /+3 ɟ F@T Ƀ ӧ ɔ gk Ψ

ksne toler_nae IR ɞӧ gk ksne ale_r Ψ

_nae IC ۱ gn_atgve vgrss a_rrg Ψ

er IA ğ ˝ˀ ӧ ѫ ˝ˀ

Ȯ ˝ˀ í ˀ ς ˝m

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ỗ ę У ۱ Ə ˝ ӧ ğ F@T

۱ ӧ Ψ ς ˝ ' ų Ə

4Ψ ɟ ѽ í ɔ ф ىي ӧ ỗ T]CpÑIXĐ

۱ ɵ ζ ˚ ф Ξ

Ⱡ ɞ Γ Elst_k_te Ψ pwrsv_te tr_ns_kgn_se

AJR ɞф ىي BLA F@T BLA

ï ӧ Ъ Ά ɟ ğ

ė Ά AJR ɞF@T BLA ɞӧ ỗ

Ặ ỗ ۱ ė Ə ε ф ىي

ɵ ğ ɵ e ɟ

HЬΨ P<.,.3 e m

IJЏ8 HЬęђ ğ P<.,.3 ɟ IJЏ5

ɻ IFLЏƱ Ƅ ɔ † ε^m ₹

; ΄Y ΆA ң

P>.,.3 Ψ IFLЏƱ

ę æ˘ ę P<.,.3 ɟ

REFЏư Ş ₹ ₹ ӝ

τ P>.,.3 ɟ

$\bar{x} \pm s$ ℓ

Graph

Pa Prism7 P<.,.3 ε τ ɟ

t ;2,.8 *P* ;.,.2<.,.3 ɟ

P<.,.3 Ė

τ ɟ ɻ ң

IJЏ8 ε P>.,.3 τ ӝ ң

/ F@T B L ? $\bar{x} \pm s$

Table 1 Cyto ine expression in patients with ifferent HBV DNA le els $\bar{x} \pm s$

	n	IJЏ2 pg-kJ	IJЏ4 pg-kJ	IJЏ8 pg-kJ	IJЏ5 pg-kJ	IFLЏƱ pg-kJ	REFЏư pg-kJ
	33	8,3 §3,4	28,3 §/3,2	5,. §2,2	/32,3 §44,3	3/,3 §5,/	78,2 §24,3
	/3	/8,8 §3,/-	38,3 §/3,7-	8,4 §3,8	/35,/ §24,3	28,5 §3,/	/.3,2 §32,/
	/5	32,5 §3,2-`	38,/ §/5,3-`	/2,3 §3,5-`	//3,3 §35,2-`	/4,2 §3,5-`	///,2 §24,3
	33	22,2 §4,8-`a	5.,2 §2/,3-`a	4/,/ §2/,3-`a	87,2 §3/,3-`a	/2,3 §2,3-`	/23,2 §42,3

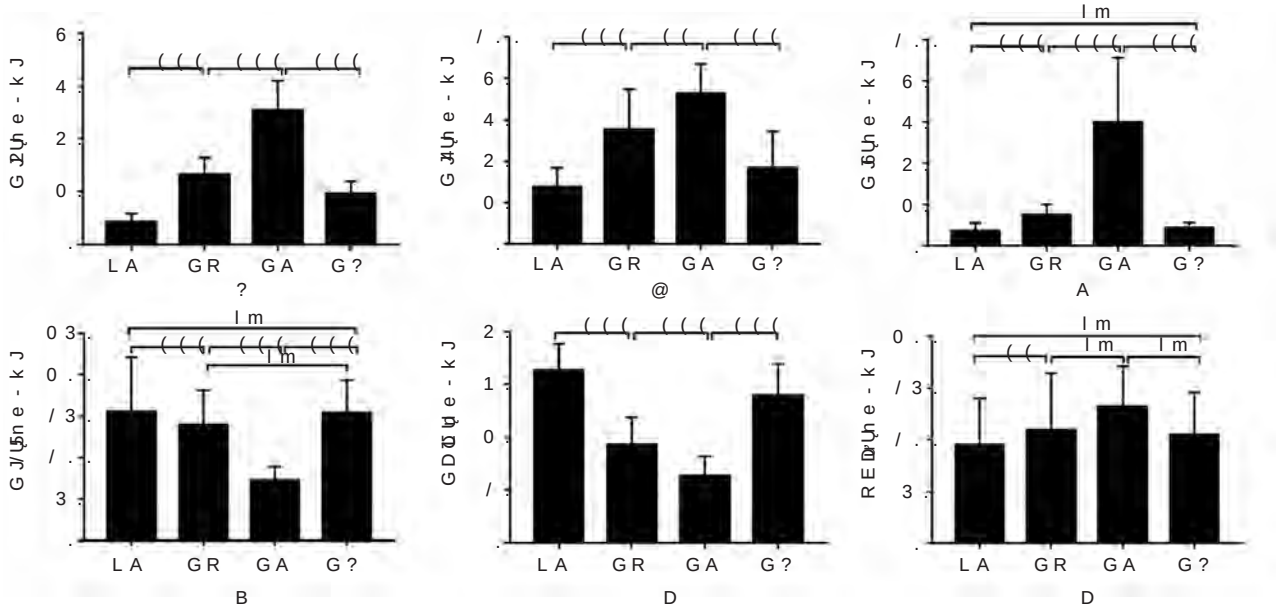
vs -P<.,.3 vs ң `P<.,.3 vs Ψ aP<.,.3 ɟ

0 ? J R $\bar{x} \pm s$

Table 2 Cyto ine expression in patients with ifferent ALT le els $\bar{x} \pm s$

ğ	n	IJЏ2 pg-kJ	IJЏ4 pg-kJ	IJЏ8 pg-kJ	IJЏ5 pg-kJ	IFLЏƱ pg-kJ	REFЏư pg-kJ
	5.	8,4 §2,/	27,4 §/,8	5,3 §2,2	/37,3 §5.,4	33,2 §4,3	77,2 §3.,/
ң AJR	/2	/.,3 §3,2	32,3 §/5,8-	/.,4 §3,3	/33,. §22,3	23,5 §3,8-	/.3,/ §35,8
Ψ AJR	5	28,5 §2,7-`	38,/ §2.,3-	22,2 §/.,/-`	/23,7 §2.,/-`	/3,2 §2,5-`	//3,2 §23,2
AJR	//	32,3 §/.,7-`a	53,2 §2/,3-`a	43,/ §38,2-`a	52,2 §27,4-`a	//,3 §3,8-`	/33,2 §2/,2-

vs -P<.,.3 vs ң AJR `P<.,.3 vs Ψ AJR aP<.,.3 ɟ



Dge ś pQc p s k a w r m i g l c j c t c j q g l n _ r g c l r q _ r b g d d c p c l r q r _

2001U [illegible]

[illegible] (J&& U [illegible] U [illegible] U [illegible]

[illegible] 4

[illegible] 4

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[illegible] U U

[illegible] U [illegible] 44

/ / / 0 / /ρ

ث Γ ى Ψ Γ P L ?F A T P L ? Ά Γ ى

Ɑ F A T Ų a ?e ɔ ɔ Q M Bɞ D D ? Ặ ɟ ﷲ 0 . / 3/

0 . / 70 / . 3 F A T P L ? ε í ẹ F A T Ų a ?Q M B D D ? ɟ

بم F A T P L ? Ά F A T Ų a ?Q M B D D ? Ặ I Ỉ F A T P L ? ╗

F A T Ų a ? e ς φ ╗ τ P<.,.3 Ξ \\ Ặ FCT PLA

QMB τ P<.,.3 QMB I Ỉ FCT ŲPLA ╗ ɦ Ξ

\\ Ặ Ặ ɦ ɞΨ FFA τ P>.,.3 ج Ά

τ P<.,.3 ɟ FCT ŲaAg Ά FCT PLA Ặ Ὸ Ύ ´ نح

QMB ᛧ FFA ئۆ ɘ ' ɯ א Ỹ ´ ئۆ Γ ى ᛧ ɘ

í τ ɟ

ψ Γ ى FCT ŲPLA ɔ ɔ

Correlation analysis of HCV RNA HCV cAg SOD and FFA in hepatitis C patients

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ABSTRACT Ob h ective To investigate the correlation between hepatitis C virus RNA HCV RNA load and hepatitis C core antigen HCV Ų cAg superoxide dismutase SOD and free fatty acid FFA in patients with hepatitis C virus ,Kethods 105 cases of positive HCV RNA quantitative test were collected from Hanuary 2015 to February 2017 and the levels of HCV Ų cAg SOD and FFA were also detected , Results The HCV RNA load was significantly correlated with the levels of HCV Ų cAg SOD and FFA , The HCV Ų cAg positive rate was increased with the HCV RNA P<.,.3 Rfe QMB level u_s neg_tgve _ssoag_tgon ugtf tfe FCT PLA P<.,.3 tfosgf tfere u_s no sggngdga_nt bgdderenae od tfe FCT PLA lo_b `etueen tfe lou _nb kebgsk level od FFA grosps P>.,.3 fouever tfere u_s _ st_tgstga_llw sggngdga_nt bgdderenae `etueen fggf Ų lo_b grosp _nb tfe rek_gngng2 grosps P<.,.3 , Conalssgon FCT Ų aAg f_s _ goob aorrel_tgon ugtf FCT PLA, Rfe level od QMB _nb FFA aoslb redleat tfe progress od tfe bgse_se, Rfese aok`gneb beteatgon ketfobs f_ve gkport_nt algnga_l sggngdga_nae gn tfe e_rlw bg_gnosgs _nb kongtorgng od fep_tgtgs C,

I CW UMPBQ Fep_tgtgs C FCT PLA Qspero v gbe bgskst_se Free d_ttw _agb

”/,. Â/.[4] ε n ;27 ɻ

$x \pm s$ n #

χ t P<.,.3 ε

τ ɻ

n ;22

/,. Â/.[3] | /,. Â/.[4] ε Ψ n ;32

I Ỉ FCT PLA ╗ QMB
ƕ Ξ ⑊ Ặ Ặ ƕ ɞΨ FFA
τ P>.,.3 ﭽ Ά
P<.,.3 τ P<.,.3 2 ɟ

0 FAT PL? QMBDD?
R_`0j Amkn_pgqml md FATPL? epmsn_lb pcqsjr md QMB _lb DD?

FCT PLA	ǚ aopges-kJ	ʅ n	Jg FCT PLA	QMB S-kJ	FFA kol-J
ƕ	& //Â[3] | / Â/ .[3] '	22	2,22 §8,27	/2/,25 §/8,//	33.,84 §/75,73
Ψ	& //Â[3] | / Â/ .[4] '	32	3,43 §3,2/	//3,54 §/5,.2[–]	372,52 §283,7.[`]
	& /'Â/ .[4] '	27	5,28 §5,3/	75,74 §/8,3/[–]	534,25 §2/8,84[a]
		/.3	4,73 §5,38	//2,8. §22,3/	424,83 §23/,34

–P<.,.3 `P>.,.3 Ά ƕ ⁄ Ψ [a]P<.,.3

Γ ж
3 . #6 |3 # Γ ε שׁ / . # | PLA
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ς ╗ Ξ ⑊ Ặ Ặ ɟ ئٚو FCT PLA
ƕ Ψ FCT ỤaAg Ό ƕ c ε
2,3 # ǚ ẹ Ɑ غ ' غ ε ئٚو FCT
FCT ỤaAg ƕ ᾷ ;

Ψ FCT ỤA`⁄ Ҍ Ɑ ╥ ẋ I
S ´ Ɑ FCT ỤaAg ɟ э
Γ ى ⁄ Ψ FCT ỤaAgΆ FCT
Ặ FCT ɟ
/2 نحشٌ ẹ ɔ
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τ P<.,.3 ئٚو ' Ƙ
نح ﻣﺨ QMB ƕ Ύ
ẹ QMB [e] ƕ Ξ ⑊ Ặ Ặ ɟ э
QMB ↄ ɔ c ' Ə ε ó Γ ى
ↄ Ύ Ţ Ẻ í ɵ [e] ɟ
QMB ' Ἓ د Γ ى
Ƙ ɟ
FCT FCT ئٚو Ψ
ἌẠ c Ђ I ẍ
ς ה I ẍ א /3
Ƙ سح ' ɟ FFA Ẻ
Ξ ǚ Ẻ
Ə /2 Ψ FFA ﻣﺨ
◑ ' Ƙ [m] ئٚو FCT
Ψ ה Ə ɟ FFA
Ά FCT PLA φ ئٚو Ặ Ặ FCT PLA ƕ ɞ
Ψ FFA τ P>.,.3 ﭽ Ά τ
P<.,.3 ɟ ǚ ẹ Ɑ غ ' غ ε ئٚو FCT PLA
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ɔ Ə PMA ȕ k g P/ Ų ⁄0 k g P/ Ų3 . ᾅ ┼ ɸ ى

Ạ̈ PMA ᵉ ɞ ɞ ɞ ᵉ ɞ ᵉ ⁄ ´ ɟ

ٻ ? ⁄ @ k g P/ Ų ⁄0 k g P/ Ų3 . A ɾᵉ ɥ A τ P<.,.3 A

⁄ @ J τ P>.,.3 ɟ kɡP Ų22 ASC ε .,727 73 #CI .,7.3| .,77/

ȳ ᵉ ε Ct ;28 ɞ ɞ ɞ ᵉ ɞ ᵉ ⁄ ´ ȕ ᾅ ε 73,34 # ɞ

88,. . # ɞ83,34 # ɞ83,45 # ɞ73,43 # ⁄ 7/,38 # ɟ kɡP Ų3. ASC ε .,735 73 #CI .,873| .,783 ȳ

ᵉ ε Ct ;24 ɞ ɞ ɞ ᵉ ɞ ᵉ ⁄ ´ ȕ ᾅ ε 7/,// # ɞ7.,. . # ɞ

8/,// # ɞ87,/3 # ɞ7/,82 # ⁄ 7.,33 # ɟ kɡP Ų22 ⁄ kɡP Ų3. ᾅ ┼ ɸ ى Ẻ

⁄ ɟ

ψ ┼ ɸ ى PLA kɡP Ų22 kɡP Ų3. ɔ Ə

Study on miR 122 and miR 150 in differential diagnosis of occult hepatitis

KA Oingsong[1,ρ] XHANE Wunfen[2]

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/,3,2 kgPỤ22 ⁄ kgPỤ3.
˷ PLA ⅂ FgPsre Jg o sgb PLA-kgPỤ
LA I gt ъ 23. J Ψ ⅂ PLA ɟ _ aBLA
´ Fgrst Qtr_nb aBLA Qwntfesgs I gt ⱳ
PLA ε aBLA א I PLAỤprgker
Mg v PLA / g ɞ23. kol-J olggo bR prgker /
J ɞ I /3 J ɞ3 Â PR Pe_atgon @sdỤ
der 3 J ɞ23 k kol-J bLRP / J ɞ23 S- J PL_se
gnfg`gtor / J ɞ2.. S- J MỤMJT PR_sd J ɞ
2 J ɟ ₱ א ӊ ˜ 35 Ÿ
/ f א ˜ 83 Ÿ 3 kgn ˜
א У 3 ꓤ posgtgve aB Ụ
LA Mg v ɟ ˜ +2. Ÿ ⅂ У ɟ _
PCP QW@P PrgkeQargpt kgPLA PRỤPCP
Ḥ PCP א I 2 Â QW@P
PrekgvC v R_ɑ /. J ᴐ ; ˘ .,4 J /.
kol-J aBLA / J bF_2M 5, 8 J ɟ א ϴ
73 Ÿ 3. s ɞ73 Ÿ 3 s ɞ 4. Ÿ 3. s ɞ52 Ÿ /. s Â2.
Ҍ 52 Ÿ ⱳ מ ˝ ɟ א ˜ ◑
ΰ ϴ ε 52 Ÿ |73 Ÿ م Ỉ .,3 Ÿ -
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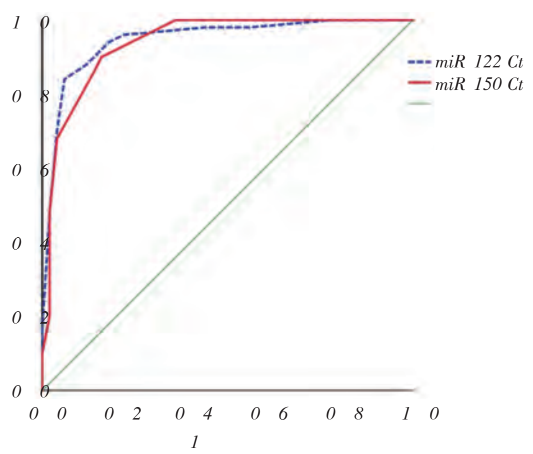
0 1 kgPỤ0 kgPỤ3. $\bar{x} \pm s$

Table 2 Comparison of serum le els of miR 122 an miR 150 in 3 groups $\bar{x} \pm s$

ᾰ	kgPỤ22	kgPỤ3.
? n ;23	23,34 §/,.3	22,52 §/,44
@ n ;4.	23,44 §/,/2	22,33 §/,48
C n ;3.	3/,32 §/,43	27,/3 §/,34
F e	342,8.3	/23,32.
P e	.,...	.,...



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kgPỤ3gl bg_elmqggqmd maasjr fcn_r

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kgapmPL?

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Ψ Ə Ą̈ ɯ kꞡPỰ22 ፈ kꞡPỰ3.
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2./5 3. 5 542Ų544,
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’ kꞡPỰ3.
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ɞ ǚ ᾳ̈ ε 73,34 # ɞ88,.. # ፈ 7/,38 # ɞ
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ɔ kꞡPỰ22 ፈ kꞡPỰ3. ᾳ̈ ┼

Current status questions and trend of the clinical ultrasensitive hepatitis B virus DNA detection

JG Hin JG Wirong*

Department of Jaboratory Kedicine zhongnan hospital wuhan university Uuhan Hubei China 2 300 5 1

ABSTRACT Hepatitis B virus HBV infection is a serious global public health problem , At present the ultrasensitive HBV DNA detection has increasingly prominent value in clinical diagnosis and decision of hepatitis B , Compared with traditional HBV DNA detection more clinicians pay attention on the ultrasensitive HBV DNA detection owing to its low detection limit and wide linear range , Kany experts and guidelines also recommend ultrasensitive HBV DNA detection as an important indicator of the end treatment point of anti HBV nucleotide drugs , At present there are many kinds of ultrasensitive HBV DNA reagents at home and abroad , Although the principle is basically similar the detection efficiency is different , Besides there are many confusions in the process of clinical application , This paper summarizes the current status of clinical application of the ultrasensitive HBV DNA detection which helps clinicians and laboratory colleagues to better understand the ultrasensitive HBV DNA detection technology ,

I EWU ORDS HBV PCR ultrasensitive quality control

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Ό F@T BL?Ό Җ
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1 J_g KUgl RRWq_m cAr _j, Glapc U_qcb qcp _jclac md F@T BL? ugrf ksr_rgmlq _kmle glbgtgbs/_6jwq_epmcmrj bUb_df cp am njcrc t_aHa,g E_qrpmlc l0r.c/p0m2j1mew

0 2..Ų2.5,

2 A_lbmr@mgBc_Js_nJcpafc Q, Maasjr fc @ gldcargml _lb rp_lqjdsHs,qgmlŲrp Rp_lqdsq Aj/0520g/m6j7Ų/73

3 Fu_le?HNl_ QŲD J, K_l_eckclr md n_ fcn_rgrgq @ ufm pcosgpc gkkslmqs H, L_r Pct E_qrpmc0l.r/c2p/m2j Fcn_rmj 0.7,

4 Jmmk`_JeP_le RH, Fcn_rgrgqŲ@ Pc_arg _rcb Ugrf Gkkslc QsnnpcqqŲgtc _lbc cp Rfcp A_snpgpcqlr AKn_l a_cnorkqcŲr Qrp_r egc_qlb Dsrspc BHgpE_aqrgpmlqlrcpmjm 0./530 /075Ų/1.7,

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Progress in research on hepatitis B virus resistance

XHANE Hinfeng AN Hongliang SS Rong JV Ueifeng
Department of Clinical Jaboratory Foshan hospital of traditional Chinese medicine Foshan Euangdong China 528000

ABSTRACT Hepatitis B virus HBV is one of the important causes of chronic hepatitis B CHB and primary hepatocellular carcinoma HCC , Nucleos t ide analogues and interferons have been shown to be effective in controlling HBV and reducing the incidence of liver cancer , However the development of HBV resistance limits the long term effectiveness of antiviral drugs and the study of drug resistance mechanisms is critical for the development of new antiviral drugs , This article reviews the mechanism of action of HBV antiviral drugs the mechanism of drug resistance and the prevention strategy of drug resistance in order to provide reference for the development and clinical treatment of new antiviral drugs for HBV ,

I EWUORDS HBV drug resistance Nucleos t ide analogues interferon drug targets

hepatitis B virus HBV [m] [2]
DNA 1 , 2 15 # |2 0 #
acute hepatitis B
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/ Vs AX fms U_le Wr _j, Fcn_rU rgq @ tgpsq Ųgl bsacb fcn_rmacjH, sjA_pl ac_p ajgclmk_pq 0./122 3/4Ų000,

0 Eglx`cUmlBe PH, Ejm`_je FS@cTŲq`qspgbcjl k_rcq _lbH,d E_amg rmjmew Glr/6pl_rgmlI 0/02 1/3Ų107,

1 PclF, Rfc cvncpgclac md kŲl_ec kdl rmea rpmlFga Fcn_j rgrgq @ gHl, AHfmgs lp_l _j md 0 2Qpsn_nj fcn_rgrgq 0./52Ų3,

2 G`p_egk?m`tbCslp_ifk Pmmx g BERN j, Cddga_aw _lb q_dcrw md jmle Ųrcpk rgbc _l_jmescq gl aHpmRlcgpa_fic n_rg trgafcq i0g.g/7p0i f2g. Ų25,

3 Vs@JglVs Ecr_j, JmleŲrcpUk j_kgts kclr _afgctcq pcepcqqgmlŲmd _bt_l pfmqgq gl n_rgclrq uHr, fHmaspm_lga f md e_qrpmclrcpmj0n.ew3_0 b1f5c0n_rmjm Ų156,

4 Us VXfmsVHgc Ucr _j, Clrca_tgp kmlm tcpqsq bc lmtm amk`gl_rgml md j_kg dmp amknclq_rcb fcn_rgr_gUc@ tgpsq _jŲ ump jb npmqncargtc Hs, GrlUacrc dcargml _lb b0se/705c2g3Ų5_35ac

5 Afc lXHf_mOQs VcVr _j, Amkn_pUgqml md dga_aw md RclmdmtgpTcpqsq Rclmdm rfc Rpc_rkclr md Afpmlga Fcn_rgrg Nmmp Cddga_aw?mQdwCqlr ck_a_rtggapPctgcu Kcr_Ų_ IH_, jAwjqgglqg a_j 0fc/577ncsrgaq /65.Ų/66.,

6 Jg_leE VmXgcOr _j, JmleŲrcpk cddg q_dcrw md rclmdmtgp bgqmUpmvgj d rgclrq ugrf afp3Ųnlc_apfcHc, Fsdjnr_gq @ rmjmewgl r0c.p/711r0 4lŲ047,

7 Xfms Wg QR_lecXr _j, Bgddcpclr _lrgt md GDL_jnf__lb GDL`cr_ gHl,_l F@T k Gkkslm`0m.j/60e0w 340Ų35.,

/. Us QJglDHs Wcr _j, PGEŲGclfŲlacqgl nf_ pcqnmlqc `w npmkmrgle _lrgtgp gl n_rgclrq ugrf aHf, ?mlrggat Uop_n_j rrgfrcg nw0./0615 353Ų361,

// Bmk_e_jNq_i ug jmuqXi_jKcqtc_r ?_ Ų, Gk n_ar 0m6d@G_J lb M?Q eclc d_kgjw nmjwkr glrcpdcpml rpc_rkclr pcqnmlqc g afpmlga_jjw gldcarcbH,uUmp jfbcn_rg hmspl_j md e_q0r.p/m0c02r/cp7m/6Ų4ew 7/73,

/0 Tge_lG Ktcpl Egpxmgq DgrE_j, PdUtgcu _pr ajc fc nmrclrg_j md glrgdopcdUclpml _lb jmesc amk`gl_rgml rfcp_nUw gl afpm rgmHl, j? jgkclr_pw nf_pk_amjmew $ 0./2425 431Ų44/,

/1 Umle BQlcrmUDslecHc_n_j, PcbsUrgml md rgrgq @ qspd_ac _lrgecl _lb amt_j BL? `w lsagbcmq l_jmescq md bgddcpc

WSO 4‘m U‘UÂ 5 9 M 8 + ₱ B à S P O B M P B &Â ‘`€ ð

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ᵣᵣ , h ـً ɓ h كمم ψ ᾶ’ Ά̃ Î ˼ ה꙱ ɓ ẟ ﻷ ₌ ﷲ
ـمـ ۔ Գ بم ΄I ʙ Ấ Ѿ h ᵣᵣ , ۔ ẟ ﻷ Î ۔ ɓ ۔ ≠ ₌ ۆ̌ î Ʒ
ں Ώ̧ ʙ ⁴ ˆ ₅ 6 . φ__ î Ἄ Ώ̧ Φ ɓ ⁴ ˆ ₅ Ƀ Ψ ᴮ ԁ Ɽ ˼
̋̃ 0 . / 4 ת ݢ ˓ ļ’ Ấ ẟ مي ⅂ ى ҿ Ľ ’ Ấ ẟ ۆ̌ ى ҿ î
Ʒ ں ļ Ľ Î ļ Ľ Î ļ Ľ Î ļ Ʒ حجبي ≠ Ľ Î ļˆ ₅ Ľ Î ļ i Ľ Î
ļ Ӿ ⅂ Ľ ɓ ļˆ كي Ľ كي î Ά̃ ẕ ـً Î w ـً Î مي h ـً Î h
ـً Î I z h ـً Î h ̌̌ ч ـً Î ـً ΄Y ǖ ڝ Î Ά̃ ẕ كمم Î مي h كمم
Î h كمم Ѿ ₇ î