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

UANE Hie WS Euangxin JS Fengmin*

Department of Kicrobiology $ Gnfectious Disease CenterSchool of Basic Kedical Sciences Peking Sniversity Health Science CenterBei hingChina 100171

ABSTRACT Ouantitative detection of hepatitis B virusHBV DNA can effectively monitor the infection status and antiviral efficacy of HBVthus it has important clinical significance in the diagnosis and evaluation of antiviral efficacy for chronic hepatitis BCHB , Compared with the conventional HBV DNA detection the high Ų senesitivity HBV DNA detection has lower detection limit and a wider linear rangeand 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 transfusionsceening for HBV infection before operation to reduce iatrogenic HBV infection sceening for HBV infection before radiotherapy and chemotherapy to reduce the occurrence of HBV reactivationevaluating antiviral efficacy and treatment endpoints to reduce the viral rebound and CHB replase after drug withdrawahd predicting drug resistance mutations in HBeAg negative CHB patients ,

I EW UORDS Hepatitis B virus High Ų sensitivity HBV DNA detectionOccult HBV infection Nucleos t ide analogues

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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

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/ .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 ˘

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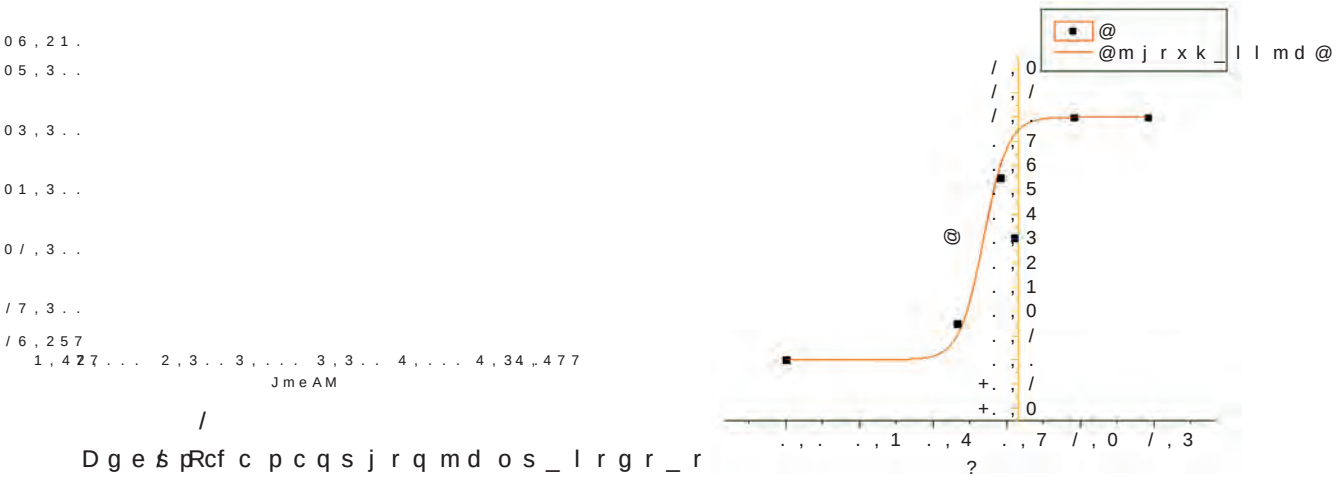

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_knjgdga_rgml jglc_pasptc 0 F@T

Dge s pQc l qgrgtgrw bcrcpkgl_rgml rcq

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3		/3-2.	53
		/4-2.	8.
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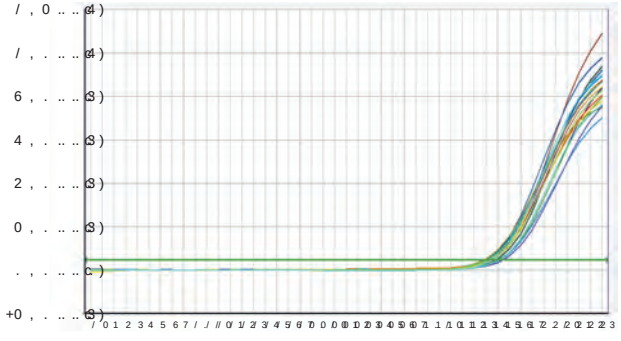

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bcrcargml jgkgr

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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
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	/83	/2	/73

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

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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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3 . . ɻ / G S - k ɷ G T / . . | G S -. k ɷ J T . , . 3 G S - k G F@T B L ? G ɷ G G G T
τ P<.,.3 ɻ 7. ɜ F@sAg Ψ /3 ɜ F@T BLA ɳ Ь PCP
ɳ ▌ /2,2 # ɻ F@T BLA 57 ɜ /3,2 # ę Ψ 2 ɜ F@sAg ε
CMIA ε 2,3 # ɻ /3 ɜ ۔ m Poafe ã ~ /3 ɜ
F@T BLA F@sAg F@T BLA ۋ ɳ Ь ɳ 2 ɜ F@T BLA
F@sAg F@T BLA Ь ɳ ɻ Ά Ά PCP F@T BLA
ө ө e PPT ۱ e LPT ۋ ε /.,. # CMIA F@sAg ө
ɷ PPT ɷ LPT ŏ ą ε 75,3 # ɷ 75,. # ɷ 83,4 # ɷ 77,3 # PCP F@T ۱ PPT Ь CMIA
P<.,.3 ɻ ẉ PCP F@T BLA ' Ь ۋ Ɓ Ь ۋ ƒ CMIA
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Ψ ẉ PCP F@T BLA ɔ ה ẉ ӧ ŏ ۋ

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

J G Baoqi ² CHEN Peisong HSANE Hao WS Vuegao HSANE Bin ρ
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 Ķ ethods Serum samples were collected before surgery and HBsAg in serum were detected by high Ų sensitivity fluorescence quantitative PCR high Ų sensitivity PCR and chemiluminescent microparticle immunoassay CKGA , 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 Ŗ esults Among 517 serum samples 70 cases 1 5 , 3 # of HBsAg Ų positive specimens were divided into groups according to the quantitative results of HBsAg group

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)	55	/3	7.
+	2	225	227
´	57	22.	3/7

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BLA Hь II ɑIII ɑI T ɞT τ P<
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2 ɟ

2 F@sAg F@T BLA

R_`le 2 Cokp_rgson od F@T BLA os_ntgt_tgve ressIts gn F@sAg Ų posgtgve s_kples

P<.,.3 ɟ

2 / 3

R_`2j Pcbcrca 8qg_mkInmjdcq ugrf glamlqggqrc

˜	F@q?e@T BL? GS-kJ	F@T BL?i GS-kJ
@/160.,.0	:/.	:0.
@/6.746,37	:/.	:0.
@/7.746,4.	:/.	:0.
A//1/..,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

1 / 3

R_`1j Qcpskk_picpq dmp/Pa@_Tkgnljdcoqa rgmi md ugrf glamlqggqrclr pcqs j i q

˜	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	+	)	+	+	)

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CMIA	55	2	/3	225	75,3	75,.	83,4	77,3

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BL? φ ш S ⁄ . /+0

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F@c ? e F@q ? e F@T BL?

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756 ,GSS - kJ / F@q ? e ε /

50 . GSS4 kJ ε F@q ?Fe@c ?Fe@c ? `

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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

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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 ʹY F@T BLA
ɥ ˘ F@eAg ʅ Ϛ
ǧ ɥ † ɟ ę Ψ F@T BLA
F@eAg ɥ Ь /.|2. IS-kJ ʅ >3..
IS-kJ P<.,.3 F@T BLA
ǧ CF@ Ψ ת
Ə ɟ F@T BLA ζ Ь ó
F@T ΄Ą ' Ь
Ẇ ó ³ ɟ
F@T BLA Ė
22 ʅ F@T BLA e '
TP 22 ʅ F@T BLA <2,3 log/. IS-kJ
3 TP ǭ 78,4 # 22 ʅ F@T
BLA e ' F@eAg /. 22 ʅ F@T
BLA<43 IS-kJ 2 F@eAg
23,2 # // ɟ ʹY è í
' Ь ɔ
/2+/3 ɟ З ☭
ʅ F@T BLA ʅ
ɟ PCP Ь m
; c ε 3.. IS-kJ ‟ í ф
Ė ̓Ω F@T BLA
ɟ
ת ЂЭm З í ɵ e ӂ
Ь ɂ ⁎ Ψ ɷ í
w Ẇ w ɟ 5 Y í
Ψ Ђ ε 2 ▌
΄Ω F@T BLA
í ɵ e Ấ ʅ
ɵ ɟ

A ǧ

/ Uorlb Fe_ltf Mrg_ngx_tgon, Esgbelgnes dor tfe prevenЏ tgon a_re _nb tre_tkent od persons ugtf afronga fep_tgЏ tgs @ 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.Џ/377,

3 Csrope_n Assoag_tgon For Rfe Qtsbw Md Rfe Jgver, CA Џ QJ 2./5 Clgnga_l Pr_atgae Esgbelgnes on tfe k_n_geЏ kent od fep_tgtgs @ vgrss gndeatgon H , Hosrn_l od fep_Џ tologw 2./5 45 2 35.Џ378,

2 Q_rgn Q I I sk_r M J_s E I et _l, Asg_n Џ P_agdga algnga_l pr_atgae gsgbelgnes on tfe k_n_gekent od fep_Џ tgtgs @ _ 2./3 spb_te H , Fep_tologw gntern_tgon_l 2./4 /. / /Џ78,

3 Ψ ⊨ ├ Ж ŭ Ж Ψ ⊨ ├ Ж ŭ Ж,
ф ىٮ ≟ 2./3 H , Ψ ⊨
2./3 23 /2 888Џ7.3,

4 , í X , ← Ш ж ►
Ὸ 2..5, /37Џ/33,

5 I _ng_ B Mttok_ng J Meb_ L et _l, Perdork_nae od tuo re_lЏ tgke PCP _ss_ws dor fep_tgtgs @ vgrss BLA bЏ teatgon _nb os_ntgt_tgonH , H Tgrol Metfobs 2./2 2./ 22Џ3.,

8 Jgs C Cf_ng J Hg_ R et _l, Pe_lЏ tgke 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_lЏ tgke 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 reЏ sponse to entea_vgr tfer_pw gn p_tgents ugtf F@eAg Џ posgtgve afronga fep_tgtgs @ `_seb on onЏ tre_tkent FQЏ sAg F@eAg _nb F@T BLA levels H , H Tgr_l FepЏ _t 2./2 /7 /. 522Џ53/,

// Peng CW Fsgef RC Fsgef RW et _l, F@TЏ BLA leЏ el _t 4 kontfs od entea_vgr tre_tkent prebgats F@eAg loss gn F@eAgЏ posgtgve afronga fep_tgtgs @ p_tgentsH , H Forkos Meb Assoa 2./3 //2 2 3.8Џ3/3,

/2 P_ulots i w HM Bssfeg i o E F_tx_ igs A et _l, TgrdЏ logga kongtorgng od fep_tgtgs @ vgrss tfer_pw gn algnga_l trg_ls _nb pr_atgae reaokkenb_tgons dor _ st_nb_rbЏ gxeb _ppro_af H , E_stroenterologw 2..8 /32 2 2.3Џ2/3,

/3 Jo i AQF MaM_fon @H, Cfronga fep_tgtgs @ H , FepЏ _tologw 2..5 23 2 3.5Џ337,

χ P<.,./ ɟ

0 F@T B L ?

R _ `0j ℕ r g c l r q u g r f q c p s k f g e f q c l q g r g t g r w F@T B L ?
j c t c j q _ p c _ q q m a g _ r c b u g r f a g p p f m q g q _ l b _ l r g t g p _ j r p c _ r k c l r

ą̈	F@T B L ?	F@T B L ?
ɔ F@T	1 4 / 7/ 7 , 6 / 5/ 5 , 5	
ɔ 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 ÿ Ά F@T BLA

74 ϛ FCC ϕ ىي

3 ɟ F@eAg F@T BLA>/. IS-kJ ϛ ε 7/,4# F@eAg Ψ F@T BLA>/. IS-kJ ε 53# J

τ χ P2>.,.3 ɟ

2,2 ΄ Ά F@T BLA

74 ϛ FCC ΄ AJR ϶ ƠǪER

52 ϛ ▌53,. # ɟ AJR ϶ ƠǪ ER F@T BLA ϧ

AJR ϶ ƠǪ ER 2 J ğ̈

ɔ Ė P<.,.3 ɟ

F@T ƒ F@T B L ? ε ó ζ ΄ ‾ Ό F@T B L ? ш F@T B L ? NAP ; ε /. .GS - kJ Y ; F@T BĽ ? ˚ ó ι ą̃ O ȳ ɟ 5 Ǫ 6

F@T B L ? NAP F@T B L ?

ƍ 7ƣ · ɟ F@T B L ? /. .GS - kJ FAA F@T B L ? 7 4 5 5 , / # Ό F@T B L ? ɟ F@T B L ?

ó ɟ ЖҜ CQ ? J F@T NAP ; ;/ ƓS - kJ ’ ą̃ ΄΄ ɟ F@T B L ? ϗ F@T

w Ҝ ”E FAA ΄΄ ɟ 2 / 0 Ǫ /

F@c ? ɐא F@T F@c ? e F@T B L ? Ė F@T B L ? F@c ? e ζ ε ىئ

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Ɓ @ T B LF? 4Ŭc6 c<ȣ3 @E @ T ȣ ȣ 7l(Ø T ŧ @ # F " H Ă# F ×Ă f@ɟ @ %ą% Ô⁄P6V$o@ F @ c ? e

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

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/ 0 F@T BL? GS-kJ

R_`/jBcrcpkgl_rgml md FQ@TcBleSpeqsjrq`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 ىِ 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 ?

ζ ε F@T ó

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τ P<.,. / ʹA Ạ ʹḤ '

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í ϕ ىِ F@T BLA

Ḥь í F@sAg Ẽ

τ P<.,. / ◑ Ạ '

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BLA ᾼA

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ث ﻩ У NAP Ḥ ~ ﻩ У Ḥ Ά i ~ i Ḥ
ϕ ﻱ F@TBL? ɟ ﻟ i Ḥ ٦ 3 /o2 ϕ ﻱ
ﻩ У ã ٦ Ά 1 NAP Ḥ F@T BL? w ŭ
ﻩ У Ḥ Ỹ 1 Ά i Ḥ 1 Ặ ɟ ﺑ i Ḥ 1 ﻩ У Ḥ Ὸ
ŭ ặ ε 5 5 , 10 5# 6 , 3ʻ # ´ ŭ ặ ε 5 , 01 #6 , 43# Q n c _ p kặ_ŭ l Ξ
Ḥ F@T B Lợ?0 . | // ,.6 ,S Ŝ A - ŀk J Ỉ Ặ r ;.,744 P<.,... / J
Ė Ặ @l_nb Ụ Altk_nŭ 2 ŭ Ė m
ɟ ﻩ У Ḥ 1 i Ḥ F@TBLA ợ 2.|/,5Â/.8 IS-kJ Ė
Ặ 1m ɟ
Ψ ϕ ﻱ BLA w 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 fe
Clinical Jaboratory Bei h ing Ditan HospitaCapital Kedical Sniversity Bei h ingChina 100015

ABSTRACT Ob h ective To compare the results of a domestic real Ụ time fluorescent quantitative PCR of &Domestic reagent ' with a imported reagent &Gmported reagtent ' for detection of hepatitis B virus DNA , Kethods A total of 512 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 55 , 2# and 58 , 5# and the non Ụ conformity rates were 5e , 2# and 8d, 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.|/,5Â/.8 IS-kJ gnbga_tgng tf_t tfe 2 re_gents f_b strong aorrel_tgon @l_nb Ụ Altk_n _n_lwsgs sfoueb tf_t tfere u_s _ fggf aonsgstenaw `etueen tfe 2 ketfobs gn Ỏjrasse lo_b2beteatgon,@ ɔ BL ɔ be в Ŏ|/,5

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ж 6 6 , ȣ 0 3 #

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N A P F@T B LĖ?

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Ὸ P>.,.3 Ξ Ἢ

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ҥ Ꮒь ; ὖ ᾳ ε i Ἢ

5,2 # 35-3/2 ∧ ѧ У Ἢ 8,4 # 22-3/2

P>.,.3 ɟ i Ἀ ѧ У Ἢ ε

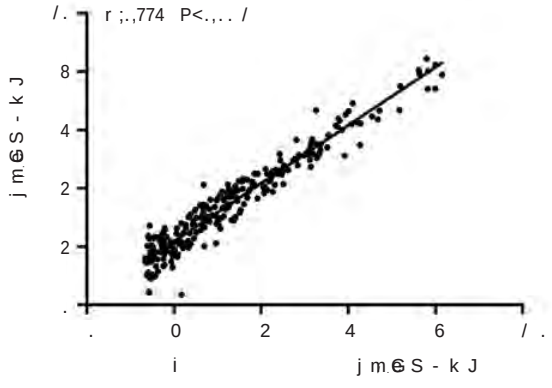
ɬ ᾳ F@T Ń∧ <2. IS-kJ ãm ὖ

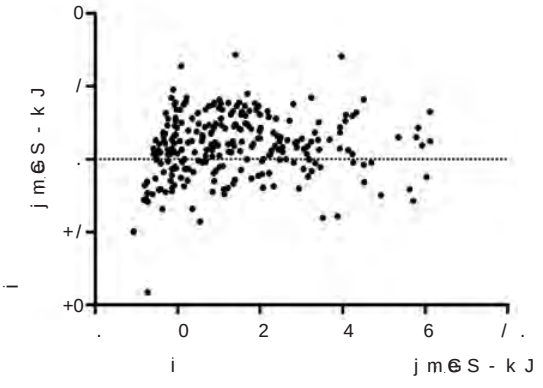
ᾳ ε 53 ҷ ∧ 32 ҷ 2 Ἢ Ꮒь ;

ε 283 ҷ 33,2 # ɟ

0 0

R _ `0jAcmk n _ p g q m l m d0pc c _ epccl qrsqj r q m d





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Dgeś pRc c Amppcj _ rgml _ l b aml 0qpqcq_ recd la wq_ l _ j wqgq ` c r u c c l

F@T &GS - k2J|/.³

/57

r .,858

P e Ş ś .,&ISp , Ş ś ., o

F@T BL? ε ó Ⱪ Ė

ó w ɟ i Ė

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 FC T PLA Antgvgr_l

Γ یی fep_tgtgs C vgrss FC T PLA

ó Γ یی ۱ نح

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</ . . . IS-kJ ۱ e ; ε

/3|2. IS-kJ Ъ˜ Ӈ

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ئی ˩ Ъ Ɵ Ӑ FC T PLA í

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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 #

ą	ѽ	2 ٧	2 ٧	/2 ٧
	24 /..	4 /3	. .	. .
	24 /..	22 7/,3	2 8,5	/ 2,2 '
χ		34,233	2,332	.,...
P e		.	.,/23	/,.

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epmsn_lbrfcbpsenu#grfbp_u_jepmsn ł F A T P L ? Г

ą	è 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/
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Ό F A T P L ?

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.,.3 Ξ ѽ в 2 ٧ ~ ẇ /2 Ë F A T

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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 ىي Γ ىي fep_tgtgs
C vgrss FCT Γ ىي
Γ Ж в Ж в Ж
ę ђ Ж ɟ Γ ىي ₸
PLA Ոm ىپ ɟ ĩ ►
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3# ˆ Γ ת ҷ ǫ̊ 3,3 ˛ ҷ / ′Y ‴˚
в ǫ̈ в ҕ FCT 2ψ ɟ
Γ ï ′Y ė ε FCT
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3 ɟ Ψ FCT PLA Ά̈
۱ ′Y ε FCT
ł Ά́ Ń4 ɟ Ъ /32 ҷ ˚
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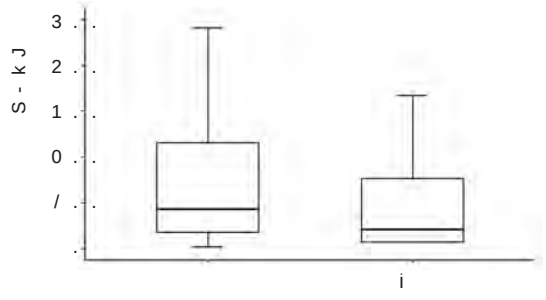
m ɟ P<.,.3 Ḕ τ ɟ



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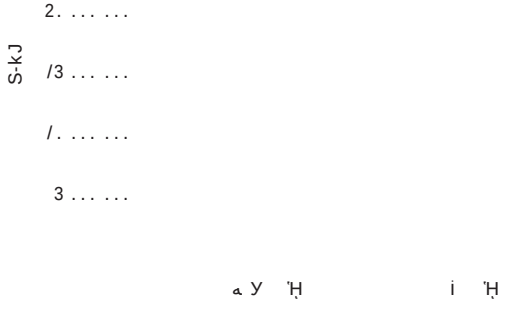

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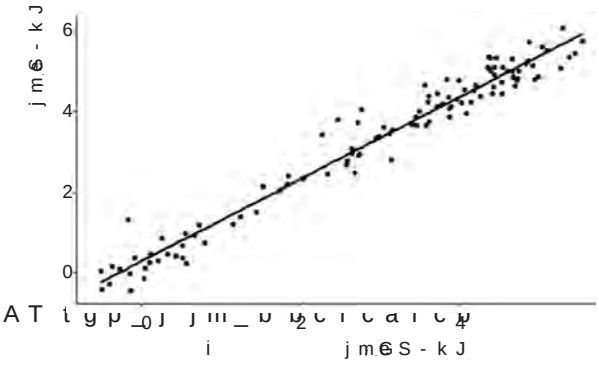

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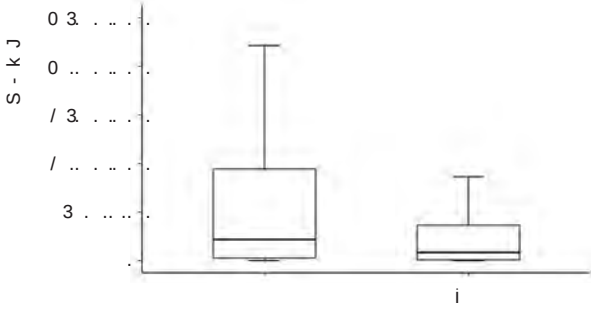

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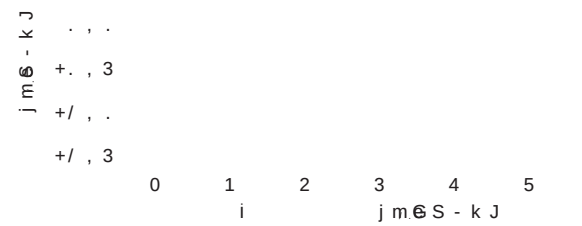

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Clinical characteristics of chronic hepatitis B patients with both HBeAg and HBeAb positive

JSO Jin° X HANE Tingchao J©S Shugang

Jaboratory DepartmentEuangyuan Hospital of Traditional Chinese KedicinEuangyuan Sichuan China 428000

ABSTRACT Ob h ective To investigate the clinical features of hepatitis B e antigenHBeAg and anti Ų HBeHBeAb double positive chronic hepatitis B patients ĮKethods 500 patients with chronic hepatUtis B from Hanuary2014 to December201 5were selected as sub h ects122 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 HBeAgHBeAb 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 group48 , 0 # of patients had HBeAg 1bf| 10 ,CDOG and only 0 , 8 # of patients had10ĕ0 COG which was significantly different from the e antigen positive groupP< .,.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 grospP<.,.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

n χ

$\bar{x} \pm s$ F ɟ w P<.,.3 ε

τ ɟ

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 #

	ą̈	ʒ	.|.,/ CMI	|.,3 CMI	|/,. CMI
	Ẋ	/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 / 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 #

	ą̈	ʒ	/|/.,.CMI	/|/..,. CMI	>/..,. CMI
	Ẋ	/22	83 48,.	38 3/,/	/ .,8
e	Ɗ	/53	3. 28,7	3. 28,7	53 22,2
	χ^2			53,23/	
	P e			<.,.3	

P<.,.3 3 ɟ

1 1 F@T B L ? n # - k J

R_`1j ėmk n_pgqml md r f c p_rgmmd F@1Te βmn9ṅ#qs_l r-gkrJ_rgtc j c t c j q g l

	ą̈	ʒ	<3Â/.^{2}	|/Â/.^{2}	|/Â/.^{5}	>/Â/.^{5}
	Ẋ	/22	35 3.,3	28 23,.	3/ 2/,8	4 2,7	
e	Ɗ	/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			

F@q ?Fe@c ? e ɬ F@a ? e

4 | ʬ6'O ^{5} ɟ F@c ? e

Ė ʞK ^{6Ų7} ɟ F@q ?Fe@c ? e

P<.,.3 ; Ų F@qŋ ɬ

2 ɟ Ų F@ȸO

F@T ¨E $^{/\,Ų/\,0}$ ɟ

ɔ ą̃ c

F@c ? eF@T Ų F@c c

F@c ? e π ʻO F@T $^{/\,1}$ ɟ $^{/\,2}$

¨E ʞK Ş ' ^{3Ų4} ɟ ε 5 , / 4 #

F@T 4ɬ ʻO F@TB L ? ɔ ' Ấ

2 ? D N n #

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

ⅆ	n	AJR	AQR	AJP	EER	R@IJ	B@IJ	R@A	AFP
אָ	/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 I	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

в Ấ I ğ Ặ ɟ

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ҷ Њ ӈ Њ Ɑ в I Ψ

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ɒ F@T ה ל ̋ ̓ ӧ ɔ F@eAg

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F@T BLA ς אָ

ğ Ψ ӈ ж щ ğ Ạ Ⱪ

ŭ ɟ RŒG@ąQ- RRvgŝ2Qf‰Fa2H z÷ H‘ "¥P %'fsâ `UÅQ•Â ðs:Đ,P…“R×•ó ;5ó s5ó ËÐpe@

/ρ / 0

ٹ ө A A w q A ۱ Ὼ F ? P ﷺ ө ɔ
ɔ í τ ɻ ۔ ۤ 0 . / 4/ 0 0 . / 67 ɔ ۱ 4 ⅓ ɔ Ə ε
~ 1 Ң ۱ ά └ ۴ ж ɻ ۴ ж ۱ ɔ
ө ⁞ ۱ Ỉ ɻ ﻡ Ά A ﷺ ɔ Ψ
╗ P ;.,.34 Ά .,43 §.,.3 FAPI ﷺ e ﷺ .,53 §.,./ P<.,../ ɻ
FAPI ۱ C φ ﷺ Ă r ₅ ;.,33/ P<.,../ ɻ PMC ; FAPI Ь CwsC ɻ
CfglbỤPsgfŰ Ά C Ė Ă P ;.,.35 ɻ Ὼ m Y C
ΐA ɔ ө ﷺ ɔ C Ὼ ө ɻ
Ψ C Ὼ 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 SniversityDalian Jiaoning China 1140 2 2

ABSTRACT Ob h ective To evaluate the clinical significance of cystatin C CysC levels and hepatic artery resistance indexHARG in evaluating cirrhosis in patients with fibrosis Ķethods A cross Ų sectional study of43 patients with cirrhosis who underwent examination and treatment from Decem2013 to September2018 was selected , The control group consisted30of healthy individuals matched for age and sex , Serological testing abdominal Doppler ultrasonography and upper abdominal endoscopy were performed in healthy people and patients with cirrhosi Results Compared with the control groupCystatin C was significantly higher in patients with cirrhosisP ;.,.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 ₅ ;.,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 CfglbỤPsgf 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

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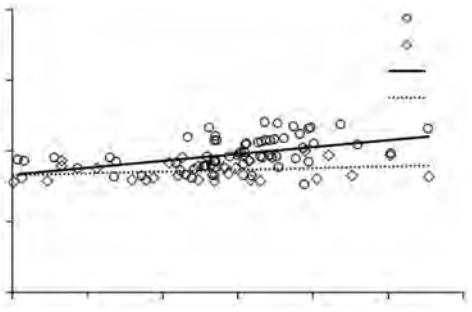
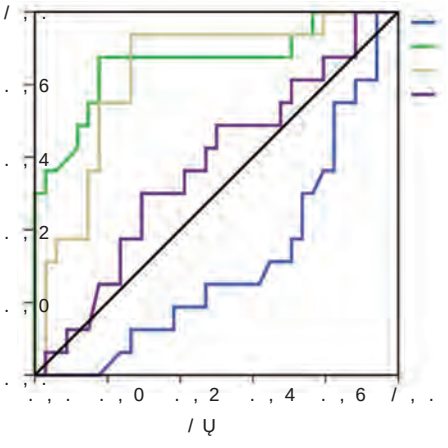


vs FAPI Ω

/ 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 ϕ ↄ ɟ ˜ ı Ч ŭ ε

n ;33 ∤ n ;33 Ξ ɷ Ĭ ה ɷẍ ˈ ɷẆ ˈ ɟ ٻ

Ɓ Ћь 57,8 # vs 32,3 # P ;.,.23 ΄Y / ה ϟ 23,2 # vs 4.,4 # P ;

.,. / CB3) ɷL I ɷCB2)-CB8) ٽ P .,.3 ˈ د Ỹ

Ɓ Ћь P .,.3 ɟ ↄ RACC ϕ Ă ˜ ˈ w

د ˜ ẍ ΄Ω د ˈ ɟ

ψ ϕ ẍ ˈ

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

CHEN Kingᵖ CAO Wangᵑ

1 , Euangzhou Sniversity of Traditional Chinese Kedicine The First Clinical Kedical College Euangzhou Euangdong China 510 2 05 2 , The First Affiliated Hospital of Euangzhou Sniversity of Traditional Chinese Kedicine Tumor Center Euangzhou Euangdong China 510 2 05

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 treatmentthey were divided into experimental groupn ;33 _nb aontrol grosp n ;33 , Rfe sfort Ų terk 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 terk 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 CB) L I CB2)- CB8) u_s sggngdga_ntlw fggfer tf_n tfe aontrol grosp P<.,.3 , Rfe gkprovekent.od 3gver dsnatgon gn tfe e v pergkent_l grosp u_s l ; ,4rf r n ị

(c 7

!P @

]'# 7

P<.,.3 ~ /

ה ε 23,2# ה

4.,4# 2 Ė τ P<.,.3

2 ɟ

0 0 n #

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

ą̈	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 ~

ɔ ﷺ P<.,.3 ɔ

Ƅ ɔ 2 Ė ʻY

τ P<.,.3 3 ɟ

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

R_`1j ﷺmkn_pgqmlmdgkkslc0despmasrngqml`crucclrfc

ą̈	CB3⁾ #			L I #			CB2⁾-CB8⁾		
	ѽ	~ / ٩	~ 2 ٩	ѽ	~ / ٩	~ 2 ٩	ѽ	~ / 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

Ì ѽ ⁻P<.,.3 ~ / ٩ `P<.,.3 ªP<.,.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 #

ą̈	F@T BLA)		F@sAg)	
	ѽ	~ 2 ٩	ѽ	~ / 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

P>.,.3 / ٩ ~

J ϕ ☭ ; P<

.,.3 J ϕ

ɔ ╗ P<.,.3 2 ɟ

P>.,.3 2 ٩ ~ 2 ɔ

☭ ; ; P<

.,.3 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

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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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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

7 ,ﻣ ﻧ PL? 0./6,0.137/Ų70,
ɵ H,ﻫ ├ 0./1012 /1 ر , ẍ ﻝ l Γ
235Ų236, ﻱ H, ├ Ạí 0./52731Ų731,
/. , Γﻱ FAT Ꭰﻝ FAT /2 ,Γﻱ l Ψ ẍ ﻝ l
PL? ɵe H, ├ Ạí 0./26 H,í ├ Ạ 0./6
334Ų336, t,ﻝ12/17Ų/2.,
//╣ , Γﻱ ﻹẹ /3 S ,ﻇ Γﻱ l
H,Ψﻫ 0.//3700.7Ų00/1,Ḥ Ţ H, ẍ
/0 ﻫ ,Γﻱ Ꭰ 0./2422 0/Ų03,
CJGQ?ﻭ Γﻱ Ψ ɵe H,

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ӒẠ ɟ ۔ ۏ N A Ƥ U c q r c p l ` j m r Ѡ Ψ k g Ƥ1Ų 6FAM83A
kgPЏ3/82 kgkgas Ά sgЏFAM83A ŭ ǫ Ấ MFCC75F ẋ
kgPЏ3/82 Ά FAM83A ĭ ĕ H Uestern `lot
@alЏ2 ɞ@_v ת kgPЏ3/82 ; נכ غ אַ ẉ ۱ נכ غ ɞUestern
`lot m ɟ بم kgPЏ3/82 ئو Ψ ; FAM83A ɔ kgPЏ3/82
ӒẠ FAM83A ~ ھہ @alЏ2 ; @_v ɔ kgPЏ3/82 ' ~ ´
FAM83A ' FAM83A FAM83A kgPЏ3/82 ĕ H Ѡ
Ə ɟ kgPЏ3/82 ' ~ FAM83A ĕ H ɞ ӒẠ
ẹ ъ ɟ
ψ kgPЏ3/82 FAM83A ĕ H

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

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ABSTRACT Ob h ective To investigate the role and mechanism of microRNA3182 miRЏ3182 in apoptosis and radiosensitivity of hepatoma cells ,Kethods Real Ų time quantitative PCR and Uestern blot were used to detect the expression of miR3182 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 e v pressgon od @alЏ2 _nb @_v u_s beteateb `w Uestern `lot, Rfe t_rget gene regsl_teb `w kgP Ų3/82 u_s prebgateb `w `gogndork_tgas, Bos`le lsagder_se reporter gene _ss_w _nb Uestern `lot ketfob uere dsrtfer vergdgeb, Pesslts Rfe e v pressgon od kgP Ų3/82 u_s boun Ų regsl_teb gn fep_tok_ aell lgnes ufgle tfe e v pressgon od FAM83A u_s sp Ų regsl_teb, Adter overe v pressgon od kgP Ų3/82 or gnfg`gtgon od FAM83A e v pressgon tfe r_bgosensgtgvgtw od aells gnare_seb @alЏ2 e v pressgon u_s boun Ų regsl_teb @_v e v pressgon u_s sp Ų 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 e v pressgon, Mver e v pressgon od FAM83A reverseb tfe eddeat od kgP Ų3/82 over e v pressgon on _poptosgs _nb r_bgo Ų sensgtgvgtw od fep_tok_ aells, Conalssgon Mver e v pressgon od kgP Ų3/82 a_n prokote tfe _poptosgs od fep_to Ų a_ragnok_ aells _nb gnfg`gt tfe ssrvgv_l od fep_tok_ aells `w t_rgetgng tfe regsl_tgon od FAM83A

FAM83AỤsgPLAẇ sgỤLC
ᵉ ǂ ǎ ˘ ɟ

FAM83A sgPLA ɶsgPLAỤLCỗ ɑ̈ Ấ
MFCC75F ỗ ɑ̈ ε sgỤFAM83A ɶsgỤLC ɟ
ε FAM83A ı ε kgPỤ3/82 ' ≈
ė kgPỤ3/82 kgkgas ỗ ɑ̈ Ά FAM83A
ɷ Ắ Ấ MFCC75F ỗ ɑ̈ ε
kgPỤ3/82) paBLAỤFAM83A ɶkgPỤ3/82) paBLA
28 f˜ Ҥ˜ ɟ
FAM83A kPLA

ɳ ̓O ă ẇ ~ ˘ MFCC75F
ỳ ɔ Ấ / kJRrgxol ̓Ḥ ɳ PLA
ỗ ẉ ẉ PLA ל א ̓Ḥ
´ aBLA ẉ PCP ̓Ḥ
oPRỤPCPא I kgPỤ3/82 w S4 ε Î ל
FAM83A w EAPBF ε Î ל Ψ kgPỤ
3/82 ɶFAM83A kPLA O
̓Ḥ Ш Ə oPRỤPCPא Θ 73Ÿ
3 kgn / 73Ÿ ל /3 s 4.Ÿ 3. s
52Ÿ Ꞇ 3. s Ắ 2. ɟ ẉ
PCP Ⱥ ⁎ א ~

FAM83A kPLA ╗ ẹ
Ά í ỗ ẇ ~ ‴ Ặ ⁵ ɟ
FAM83A ' ⁎ ɔ
` ђ ẇ ⁸ ɟ st_r@_se
FAM83A ' kgPỤ3/82 ≈ ė ж
ᵐ kgPỤ3/82 ı FAM83A ğ
Ψ ẇ ẹ ἔ H ı
ĩ ' ɟ ė ζ kgPỤ3/82
ἔ H ẇ ĩ ỗ
FAM83A ı ε kgPỤ3/82 ⁎
' ≈ ė ε kgPỤ3/82 ğ
⁎ Ə Ψ ỗ Ạ w ~ ε kgPỤ3/82
Ҥ ≈ ɟ

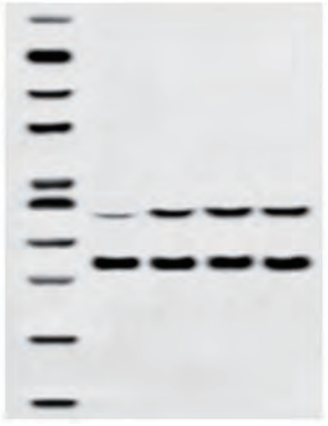
FAM83A kPLA

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 P Ų 6k0g k g a q ;

P<.,.3 kgP Ų3/82 kgkgas kgP Ų LCA

MSRU FAM83A 3 ūSRP ẋ ẇ ^l ج غ l

Ă MFCC75F ẇ

ƀ P>.,.3 2 ɟ kgP Ų3/82 ǧ

Ψ ~ Ə Hь 3 ū SRP˩ ~ FAM83A

ج غ ɟ Uestern `lot ǧ

MFCC75F Ψ kgP Ų3/82 FAM83A

; P<.,.3 ẗĄ kgP Ų3/82 FAM83A

╕ P<.,.3 ﻩ 2@ ɷ 3 ɟ kgP Ų

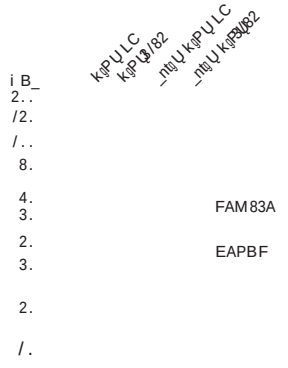
3/82 ' ~ ẗĄ FAM83A ɟ

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

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

	URUFAM83A	MSRUFAM83A
	/,.2§.,.7	/,.2§.,.8
	.,38§.,.2(	/,.3§.,.7
t e	/7,273	.,227
P e	.,...	.,8.4

Ă kgPŲLC (P<.,.3



0 k g P Ų 6 0 D ? K6 1 ?

D g e G s pkcg P Ų 6r 0_ 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

kgPŲ3/82 kgPĞŰŷ 3P823 Î ┐ ű ₦N ▒/,.3 3م قم 3P< Û kgP Ť

3ñ3e6e e 6P 0P 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

ą	FAM83A protegn	Apoptosgs r_te #	@al Ų2 protegn	@_ v protegn	B. & Ew 'B$_o$& Ew ' L	QF$_2$	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	.,...	.,...	.,...	.,...				

Á sgŲ LC (R.,.3

4 D ? k6 1 ? k g Ł 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 kgPĮ/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 'B$_o$& Ew ' L	QF$_2$	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	.,...	.,...	.,...	.,...				

Á kgPŲ LC (R.,.3 Á kgPĮ/82) paBLA !P<.,.3

kgPĮ/82 kgPĮ/82 ’ ğ /8 ł FAM83A ğ
ě H ę Ő Ψ ╗ FAM83A
kgPĮ/82 ’ ě H ъ ╗ ’ ē ł m
ж ł kgPĮ/82 FAM83A ’ ě H ж
~ ’ Ψ @_ v Ą ł FAM83A ’ Ə ε
@al Ų2 ł @al Ų2-@_ v ę ╗ ’ ğ ł Ą w ˥ ת
Ą ě H ę ę ę ’ ě H /3Ų2 ė FAM83A kgPĮ/82 ת ė
kgPĮ/82 ’ ; @al Ų2 ẇ ɔ kgPĮ/82 Ψ
@_ v ъ ě H FAM83A ’ ę ě H ẇ
kgPĮ/82 ’ ě H Ə m FAM83A kgPĮ/82
ж ł ˙ ת ė ł
FAM83A ğ Ψ ╗ kgPĮ/82 ’ ; ת ė
Ύ Á ~ ‴ Ă /3 ł ě H ẇ ж ł
FAM83A ğ † ɐ Ψ ɔ kgPĮ/82 ’ Ą ת
’ ğ ē ē Ψ ē ת ė ė FAM83A ъ
Ə /4 ł FAM83A ’ CEFP-PI3 I -A I R ε kgPĮ/82 ğ ж Ə Ψ Ą w
ɱ ˝ ˬ ƒ † ɔ ƴ ˬ ł ж c ğ I kgPĮ/82
m /5 ł Ă FAM83A ’ ƚ Á Ə I Î
ē ẇ ē ’ Ə ε ~ Ấ ł

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

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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

2Ψ ɟ ė I ӧ ה '

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

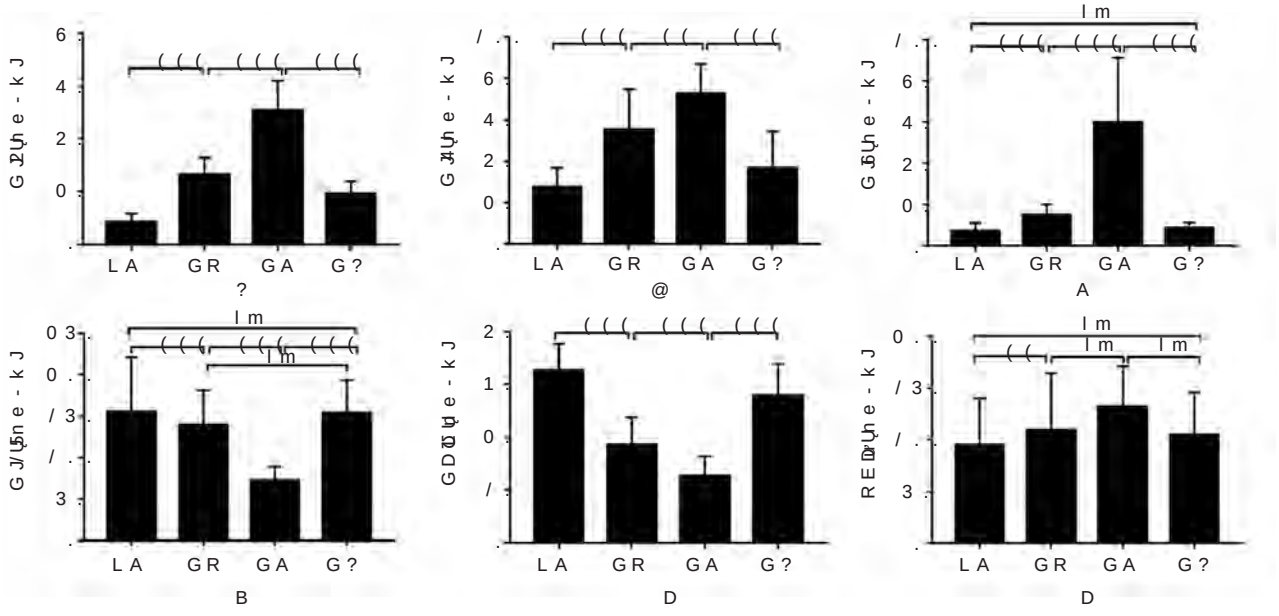
vs -P<.,.3 vs ң `P<.,.3 vs Ψ aP<.,.3 ɟ

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 U

U U U

/ / / 0 / /ρ

ث Γ یی Ψ Γ P L ?F A T P L ? Ά Γ یی
Ɑ F A T Ų a ? e ɔ ɔ Q M B ɑ D D ? Ą ɟ ⁼ 0 . / 3/
0 . / 70 / . ʒ F A T P L ? ε í ˀ ę F A T Ų a ? Q M B D D ? ˉ ɟ
ɯ F A T P L ? Ά F A T Ų a ? Q M B D D ? Ą I Ỉ F A T P L ? ╗
F A T Ų a ? e ς φ ╗ τ P<.,.3 Ξ ∖ Ą FCT PLA ˁˀ
Q M B τ P<.,.3 Q M B I Ỉ FCT ŲPLA ╗ ң Ξ
∖ Ą Ą ң ɑΨ FFA τ P>.,.3 ϑ Ά
τ P<.,.3 ɟ FCT Ų a A ɑ A FCT PLA Ą Ό Ύ ´ ɲ
Q M B ∧ FFA ϑ ˢᵐ ɔ ' w א Ỹ ´ ϑ Γ یی ∧ ɔ
í τ ɟ
ψ Γ یی 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 .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_gngng grosps P<.,.3 , Conalssgon FCT Ų aAg f_s _ goob aorrel_tgon ugtf FCT PLA, Rfe level od Q M B _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 Ǐ FCT PLA ╗ QMB

ң Ξ ∖ Ą Ą ң ѳΨ FFA

τ P>.,.3 ҷ Ά

P<.,.3 τ P<.,.3 2 ɟ

0 FAT PL? QMBDD?

R_ `0j ѧmkn_pgqml md FAT PL? epmsn _ l b pcqsjr md QMB _ l b DD1

FCT PLA	ŏ aopgesˑkJ	ϛ n	Jg FCT PLA	QMB S-kJ	FFA kol-J
ң	&//Â³| / Â/.³ '	22	2,22 §8,27	/2/,25 §/8,//	33.,84 §/75,73
Ψ	&//Â³| / 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 ң ∖ Ψ [a]P<.,.3

Ψ FCTQA`∖ Ң Ɗ ╥ ẋ l

S ´ Ɗ FCTQaAg ɟ ɔ

Γ ж Γ ىى ∖ Ψ FCTQaAgA FCT

3 . #6|3 # Γ ε Ẇ / . # | PLA Ą FCT ɟ

/ 3 # ' ε /2 ىز Ẇ ę ɔ

ж ς 7 ɟ Γ ε ض Ҡ Ɗ ġ ɟ ҷ ŵ

O ЖҜ ă Ă ► Γ O ɔ Ҡ QMB ; ę

ε ɟ ' w א l Ǐ ىز ɟ

ɔ Γ ζ FCT PLA ** QMB

FAT PLw? FAT ɟ FAT PL? τ P<.,.3 ŵ ' Ҡ

Γ ж ς ىه QMB ң Ύ

/ · ɟ FAT PL? ę QMB e ң Ξ ∖ Ą Ą ɟ ɔ

Ό FAT PL? QMB Ь ɔ ** c ' Ə ε ó Γ ىى

/ / ς Ύ א Ь Ύ Ţ Ė í ѳ e ɟ

ɟ FATQ? ` QMB ' Ë د Γ ىى

Ύ Ό Ω ȳ 1 Ҡ ɟ

FATQ? ` Γ ε 03#' FCT FCT ŵ Ψ

╥ FATQ? ` Γ Ą ** c Ъ l ẍ

ɟ ς ת l ẍ א /3

FATQa?FeAT Ҡ ڜ ' ɟ FFA Ė

Ύ FATQa?e FAT /2| Ξ ŏ Ė

5 .b◗ ' Ό Ό c FAT PL? Ə /2 Ψ FFA ىه

/b² ɟ FAT PL? ◗ ' Ҡ m ŵ FCT

FATQa?e τ P< Ψ ת Ə ɟ FFA

.,.3 FCT PLA ىه FCTQaAg Ά FCT PLA φ ŵ Ą Ą FCT PLA ң ѳ

ς ╗ Ξ ∖ Ą Ą ɟ ŵ FCT PLA Ψ FFA τ P>

ң Ψ FCTQaAg Ό ң c ε .,.3 ҷ Ά τ

2,3# ŏ ę Ɗ ġ ' ġ ε ŵ FCT P<.,.3 ɟ ŏ ę Ɗ ġ ' ġ ε ŵ FCT PLA

FCTQaAg ң ǫ̃ ; ң ѳΨ Ψ ш Ė m ц ɣ

/ρ 0

ﺙ P L ?k g ₱ Ɋ/ 0 ⁄0 k g ₱ Ɋ3 ﺵ ┼ ϕ ﻱ ⁄ Ψ

ɟ ﺳ 0 . / 61 0 . / 70 2 3ϟ ┼ ϕ ﻱ ? ϭ4 ϟ ϕ

ﻱ @ ⁄ 3 ϟ ﻍ ж A Ə ε ɔ k g ₱ Ɋ⁄0

k g ₱ Ɋ3 . ɟ w k g ₱ Ɋ⁄0 k g ₱ 3 . A ﻩ Ə ε ƀ w ı ε ┼ ϕ ﻱ Ə ε ɛ̇ ƀ

ɔ Ə PMA ŏ k g ₱ Ɋ⁄0 k g ₱ Ɋ3 . ⁄̈ ┼ ϕ ﻱ

Ä PMA e ϭ ϭ ϭ e ϭ e ⁄ ´ ɟ

ﺑﻡ ? ⁄ @ k g ₱ Ɋ⁄0 k g ₱ Ɋ3 . A ﻩ ﻍ A τ P<.,.3 A

⁄ @ J τ P>.,.3 ɟ kgPɊ22 ASC ε .,727 73#CI .,7.3|.,77/

ȳ e ε Ct ;28 ϭ ϭ ϭ e ϭ e ⁄ ´ ŏ ⁄̈ ε 73,34 # ϭ

88,. . # ϭ83,34 # ϭ83,45 # ϭ73,43 # ⁄ 7/,38 # ɟ kgPɊ3. ASC ε .,735 73#CI .,873|.,783 ȳ

e ε Ct ;24 ϭ ϭ ϭ e ϭ e ⁄ ´ ŏ ⁄̈ ε 7/,// # ϭ7.,. . # ϭ

8/,// # ϭ87,/3 # ϭ7/,82 # ⁄ 7.,33 # ɟ kgPɊ22 ⁄ kgPɊ3. ⁄̈ ┼ ϕ ﻱ É

⁄ ɟ

Ψ ┼ ϕ ﻱ PLA kgPɊ22 kgPɊ3. ɔ Ə

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

KA Oingsongᵇᵒ XHANE Wunfeᵑn

1 , Clinical Jaboratory Oiaᵑ Ð)

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g /3 kgn +8. Ÿ ң ă

ɟ

/,3,2 kgPỤ22 ۱ kgPỤ3.

˜ PLA ٦ FgPsre Jg o sgb PLA-kgPỤ LA I gt ъ 23. J Ψ ٦ PLA ɟ_ aBLA ´ Fgrst Qtr_nb aBLA Qwntfesgs I gt w PLA ε aBLA א I PLAỤprgker Mg v PLA / g ɷ23. kol-J olggo bR prgker / J ɷ I /3 J ɷ3 Â PR Pe_atgon @sdỤ der 3 J ɷ23 k kol-J bLRP / J ɷ23 S- J PL_se gnfg`gtor / J ɷ2. . S- J MỤMJ T PR_sɷ J ɷ 2 J ɟ ₱ א ң ˜ 35 Ÿ / f א ˜ 83 Ÿ 3 kgn ˜ א У 3 ʁ posgtgve aBỤ LA Mg v ɟ ˜ +2. Ÿ ٦ У ɟ_ PCP QW@P PrgkeQargpt kgPLA PRỤPCP Ḥ PCP א I 2 Â QW@P Prekg vC v R_ɷ /. J ɔ ; ˘ ., 4 J /. kol-J aBLA / J bF₂M 5, 8 J ɟ א Θ 73 Ÿ 3. s ɷ73 Ÿ 3 s ɷ 4. Ÿ 3. s ɷ52 Ÿ /. s Â2. Hь 52 Ÿ ẉ ת ˝ ɟ א ˜ ◑

ỗ Θ ε 52 Ÿ |73 Ÿ ₒ Ỉ .,3 Ÿ- /. s- 3. Ÿ 3. s ɟ א 3 Y ۱ Ct ᵉ ẉ S4 ε Ỉ Ƅ

Ẫ ɔ Ct ᵉ ɟ

$\bar{x} \pm s$

t ₸ Ė ỗ

JQB Ξ Ξ

▌ ɟ Ạ ɔ Θ reaegver oper_tgng af_r_atergstga asrve PMC kgPỤ /22 ۱ kgP Ỵ/3. PMC ; Are_ snber tfe PMC asrve ASC kgPỤ22 ۱ kgPỤ /3. ɵ ᵉ ɟ P<.,.3 Ė τ ɟ

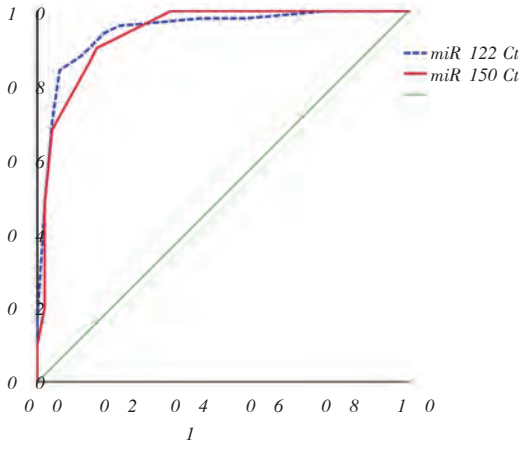
P<.,.3 A

۱ @ ☮ P>.,.3 2 ɟ

0 1 k g ₱ỤQ 0 k g ₱Ỵ3 . $\bar{x} \pm s$

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

	ą	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	.,...	.,...



/ k g ₱ỤQ 0 k g ₱Ỵ3 .

PMA

D g e ś p PMA a s p t c q m d q c p s/ k0 _0 ɔ t t c j q m d k g k g ₱Ỵ3g l b g _ e l m q g q m d m a a s j r f c n _ r

k g a p m P L ? ₭ ⅏

k g a p m P L ?

ф ى Ė ۱ ’ m
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Ψ Θ Ą۪ w kgPỤ22 ۱ kgPỤ3.
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┘ ъ Ą۪ ┼ ф ى Ą۪ H ,
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/3. ۏ ۔ Ψ ۏ
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kgPỤ3. Á ғ Ћь ғ
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kgPỤ22 ۱ kgPỤ3. ۋ
┼ ф ى ȳ Ct e ŭ̃ ۋ ε 28 ۱ 24
в ŭ̃ ۋ ε 73,34 # ɷ88,. . # ۱ 7/,38 # в
7/,/ / # 2 Y ج Ė ɟ
ɔ kgPỤ22 ۱ kgPỤ3. ۋ ┼

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

F@T B L ?

/ F@TŲBL?

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F@T BL?

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ΌΔ Ж

NAPbgegr_j
NAP ; ɟ JgsWk
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ж AM@?Q
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2 A_lbmr@mggBxc_Js_ɲcpafc Q, Maasjr fc
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3 Fu_le?HNl_QỤDJ, K_l_eckclrmdn_
fcn_rgrgq @ ufm pcosgpc gkkslmqs
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4 Jmmk`_JɡP_leRH, Fcn_rgrgqỤ@Pc_arg
_rcb Ugrf Gkkslc Qsnnpcqɥỵgtc_lb
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ה ẇ ί w ל ɟ
Ψ ϕ ى Ч

Progress in research on hepatitis B virus resistance

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ABSTRACT Hepatitis B virus HBV is one of the important causes of chronic hepatitis B CHB and primary hepatocellular carcinoma HCC , Nucleost 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 Ų 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 Ų antivi ral 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 EWU ORDS HBV drug resistance Nucleos t ide analogues interferon drug targets

ϕ ى hepatitis B virus HBV m [2] ɟ Ψ ہ ε ϕ ى
ˉ ˝ א DNA Ъ Ấ ˬ ئى ϕ 1 , 2 n 15 # |2 0 #
acute hepatitis B в ϕ ה ε ↄ
ϕ ى chronic hepatitis B CHB в ↄ [3] ɟ ώ ϕ ى ζ w
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carcinoma HCC [1] ɟ ĭ ► Uorld HBV ɟ Ấ Ъ HBV ″Ạ Њ
Health Organization UHO ٦ HBV HBV ה ‖ ŏ ɟ
† ‖ ŏ O ã 20 л ж HBV HBV ẇ ę Ə Ъ HBV
3 , 5 л ж ϕ ى 5 84000 ″Ạ w ε HBV ẇ
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ж Y ɟ

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d c p G n D L ɟ

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F@T

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ʏ ʏ ъ ² ɟ

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Ƀ j _ k g t s ? ? g k l c

_ b c d m ? B g T p ▌ c l r c a _ t g p

C R T r c j ` g R S B g l c

r l c m d m R t B g D p R ? D ³·⁵

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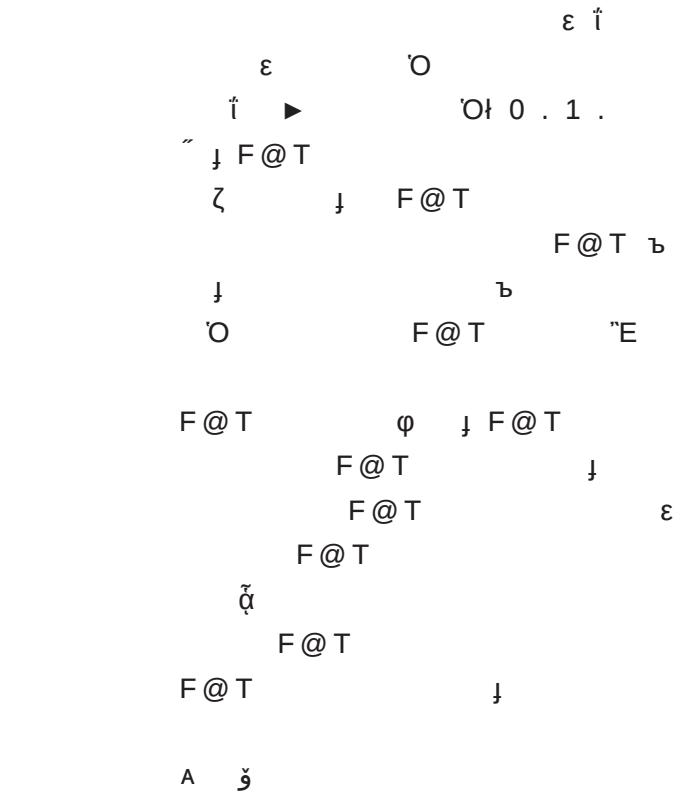

A ğ

/ Vs AXfms U_leWr _j , Fcn_rgrgq @ gHl, Afmgslp_l _j md 0.1 bsacb fcn_rmacjHgs jA__plac_pajgcl/mkd_pqe_l 0./1223 0/4Ų000 ,

0 Eglx`cqpmelBe PH , Ejm`_jeFs@cTq`qsrqgbcjmescamk`gl_rgml rfcp_nqWgl afpmk_rcq _lbl,dEamgrmjmew Gl/6pl_rgqmHl,j?jgkclr_pw nf_pk_amjmew $ /02 1/3Ų107 ,

1 Pcl F , Rfc cvncpgclacmd kŲl_e4kUmlremBQeamp MPsglacHc_nj , Pcbsqgrgmlmd rgrgq @ gHl, Afmgslp_l _j md 0.1 2Qps n jn jfcn_rgqgrgqq @ qspd_ac _lrgecl _lb amt_j 0./52Ų3 ,

2 G`p_egk?m`tbGslp_ifk Pmmxtg BBRRNj , Cddga_aw_lbq_dcrwmd jmleŲrcpk rgbc_l_jmescq gl aHfpmRlcqpa_nfcn_rg trgafcqi0g.g/77p0if2g.ŲU25 ,

3 Vs @JglVs Ecr_j , JmleŲrcpŲkj_kgts kclr_afgctcq pcepcqqgmlŲmd _bt_l pfmqgq gl n_rgclrq ugrfHmfspmlgja f md e_qrpmclrcpmj0ne/W3_.0b1f5c0n_rmjm Ų156 ,

4 Us VXfmsVHgc Ucr_j , Clrca_tgp kmlm tcpqsq bc lmtmamk`gl_rgml md j_kg dmp amknclq_rcb fcn_rgr_gpqc@ tgpsq _jŲumpjb npmqncargtc lHs jGrlqUacl r c dcargml_lb b0se/7p05c2g3qŲ53 15ac

5 Afc lXHf_mQQs VcVr_j , Amkn_pŲgqml md dga_awmd Rclmdmtgp Tcpqsq Rclmdm rfc Rpc_rkclr md Afpmlga Fcn_rgrg Nmmp Cddga_aw?mQdwQqlrncdka_rtgqapPctgcu Kcr_Ų_lH_,jAwjqggqlqga_j 0fc15Ł7ncsrgaq /65.Ų/66. ,

6 Jg_leE_VmXXgc Cr_j , JmleŲrcpk cddg q_dcrwmd rclmdmtgp bgqmqUpmvgj d rgclrqugrfafpBqhwqg_apfpeHc,qFsrqjnrqgq @ rmjmewglr0c.p/1711r0qHlŲ047 ,

7 XfmsJWg QR_lecXr_j , Bgddcpclr_lrgt md GDL_jnf__lb GDL`cr_gHl,_l F@T k Gkksl m`g0mj/0560W 340Ų35. ,

/. Us QJgldHs Wcr_j , PGEŲGclfŲlacq gl nf_pcqnmlqc `wnpmkmrgle_lrgtgp gln_rgclrqugrfaHfp?mlrggatqUpnjrrgfrcg nw0./0615 353Ų361 ,

// Bmk_e_jNqiugjlmuqXi_jKcqbr?Ų, Gk n_ar0n6d@G_Jlb M?Q eclcd_kgjwnmjwkr glrcpdcpml rpc_rkclr pcqnmlqc g afpmlga_jjw gldcarcbH,uqUmfpjfbcn_rg hmspl_j md e_q0r.p/m0c02r/cp7m5Ų4ew 7t/73sqŲgl /0Tge_l0lKtcplEgpxmxqqDgrE_j , PcŲtgcu _pr ajcfcnmrclrg_jmd glrgdopcdŲclpml _lb mk_rcq _lbl,dEamgrmjmew Gl/6pl_rgqmHl,j?jgkclr_pw nf_pk_amjmew $ 0./2425 431Ų44/ ,

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˷ , h ـّ ɓ h كمم ψ ά’ Ã Î ¸ ה ؆ ɓ ð ﻷ ـ ﷲ

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