

2020 8 12 8 72

Volume 12 Number 8 August 2020

&('3

7 & ('

5i+Q3ñ3ô

+y î3ñ3ô

•e6>3ñ3ô

U•1 UŽ &('3 7 & (' U•) &U'„ UŽ
'JHV•\$F UŽ &YQSFTTJPO PG &('3 BOE 7 &(UQ&„U EŽOT JO UJT TVFT



1
1
i 5

0Y n 1 α

0Y L

Z Ž T "

\$ " " (

%

)

\$ # "

=

!

" X g e [a ` Y W " " W X S _ [^ k b W d e a ` S ^ [I W V _ W V
f [a ` X [` " W d b d [` f e f S d Y W f W V U a U] f S [^ _ g z W d S W k

" ! @ S f g d W ? W S [U 4 W d [W [e Z < a g d 4 d S [^ f d X B S ` U
< a g d ` S ^ a X : S W _ S f a ^ a Y k + "

% % (3 E :

3 E : 9 < E :) "

. ; ` f W d ` S f [a ` S ^ < a g d ` S ^ a
h [W i e F Z W 3 _ W d [U S ` < a g d ` S ^ a 4 [5 a ^ [` [U S

? W V [U 5 [S ` W W d 9 W ` W f g W d S b l a X 5 S ` U W d

(3 E 5 A 3 E :

3 E : 9

分子诊断与治疗杂志

<AGD@3> A8? A>75G>3D 6;39@AEF;5E 3@6 F: 7D3BK

\$\$ * # \$ *)\$ 4[a`fZ'k Ha'g_ W#\$ @g_ TVd* 3gYgef \$\$ "\$

) + # # f f0

分子诊断与治疗杂志

2020 8 12 8

+ *)

\$ # # * # %

? S d X S `

7(5 0%&

F # 7 U S V Z Wd [`

U [d U D @ 3

5 = ?U4F ` ;

_ [\$ ([(

D 6 l

> b \$ 5 3# &)

Z e 5@B4 H 5 3 7

3

E 3 F#4

F 9 8# F d WY

3] 4 (b

"

"

"

" # &

" # *

" \$ \$

" \$ (

" %"

" %&

" %+

" & &

" &)

" ' \$

" ' (

? ; 8 _ D @ 3 8

5 D B B 5 F ; 5 G

; < ; > ; # "

B 3 B B X 3 d W W 5 9 B > 9 8

F 7 ! \$ Z ; 8 @ ; # "

5 6 & B 5 F Z e 5 D B

7 9 8 8 7 9 8

B 6 # H [_ W T

? B B 6 6 D B 3 8

_ [8 * \$ ' 8 O X B 7

5 K Q # ; 9 8

#

3 6 # E 6 8 e ; 5 3 ?

" ("

" (&

v

" (+

") %

"))

" * \$

" * (

" + "

" + '

" + +

" %

" *

\$

'

+

\$ &

\$ +

.....

<AGD@3> A 8
? A >75G>3D 6;39@AEF;5E 3@6 F: 7D3BK

Monthly Volume 12 Number 8 August 2020

5A@F7@FE

COMMENTS

- Research advances of germline predisposition factors of myeloid neoplasms
NIE Daijing WANG Fang ZHOU Xiaosu LIU Ming LI Manyang LIU Hongxing 987

ORIGINAL ARTICLES

- Establishment of industry standards for fetal chromosome aneuploidy including trisomy 21 trisomy 18 and trisomy 13 Next Generation Sequencing
ZHANG Wenxin YU Ting SUN Nan CHEN Yangyi GAO Fei HUANG Jie QU Shoufang 991
- Preimplantation genetic diagnosis of Marfan syndrome using next generation sequencing
HE Tianwen LU Jian CHEN Chuangqi LIU Dun DING Hongke DONG Yunqiao DU Li YIN Aihua 995
- The value of T cadherin expression in predicting the prognosis of gastric cancer after radical operation
LI Lixin CAI Cui Fang LI Wenxiang SHI Lei PU Jing 1001
- Establishment the protocol of CD34⁺ cell percentage and absolute counting by E6 flow cytometer
FU Xiaoying ZHANG Xiading LIU Mengtong YU Yue CHEN Shiyang PENG Dong KUANG Yaxian LIU Sixi CHEN Yunsheng 1005
- Expression and significance of serum TK1 and E cadherin in children with acute lymphoblastic leukemia
XING Dongwen ZHANG Yuzhuan LIN Jian LIN Lufei 1010
- Expression level and clinical significance of circRNA in cancer tissues and serum of patients with non small cell lung cancer
YANG Guangquan ZHANG Qianshi FAN Xigang WU Fei 1014
- Study on the value of combined diagnosis of acute myocardial infarction by CK MB cTnl coronary angiography and electrocardiogram
CHANG Lin CHANG Peiyun LIU Juan 1018
- Correlation of miR 126 and miR 96 with platelet activation and short term prognosis in patients with acute myocardial infarction
LIU Hanyi DU Xiaojie WANG Jinqiang FENG Guiwen 1022
- Study on the diagnosis and prediction of hypertension with atrial fibrillation by RDW
QIU Cunxin 1026
- The expression and significance of serum Lp PLA2 and CD147 in patients with carotid atherosclerosis
TAN Hong ZHU Hongxia ZHANG Keshuai 1030
- Relationship between hs CRP NF B VCAM1 and the condition and prognosis of ischemic cerebrovascular disease
LI Zhanzeng REN Yingqiao WU Shuling LU Yanhui GUO Jia 1034
- Expression of prealbumin and procalcitonin in neonatal hyperbilirubinemia and its correlation with myocardial enzyme spectrum
WANG Lingzhi JIA Wenting ZHANG Maomiao 1039
- Application of serum inhibin A combined with placental growth factor in prenatal screening of Down s syndrome in early pregnancy
HUANG Xuezheng CHEN Qianlan CAI Jinmei SUN Lili 1044
- Analysis of the relationship between SATB1 expression and chemotherapy resistance and prognosis in nasopharyngeal carcinoma
YANG Heqiang LIU Wenfeng HU Yue 1047

Predictive value of TGF- β 1 and Treg cell count in umbilical cord blood for bronchopulmonary dysplasia in preterm infants	
LIN Qingqing TAN Huihan WU Yongfang ZHU Wei HUANG Ying	1052
Evaluation value of axon growth inhibitory factor A and nuclear factor κ B p65 on the condition and prognosis of patients with acute hypertensive cerebral hemorrhage	
YIN Yanxia SHANG Wenjun GUO Hua GAO Zhen SUN Xue	1056
Expression of CCL18 HIF-1 and MIF mRNA in human gliomas and the value of prognostic assessment	
LV Chao SUN Huiyuan YAN Junfei	1060
The application value of CRP and PCT combined with pulmonary infection score in the diagnosis and prognosis of pulmonary infection in ICU	
HUANG Yang ZHANG Lei GUO Wei	1064
Correlation between serum levels of IL-6 IL-8 and IL-10 and coronary artery lesions in children with Mycoplasma pneumoniae infection and Kawasaki disease	
GUO Xuan SONG Yao Abreti Abuduhar	1069
Application value of combined detection of serum PAPP-A free hCG and PLGF in the diagnosis of Down Syndrome in early pregnancy	
JIA Guangzhu WANG Henghui WANG Li YE Yuanhua	1073
Changes of Th1/Th2 and related cytokines IFN	

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' 13 # 6 4 g z f

#

ž (# +) # & & %
\$ ž " (' \$ " #
%ž # " " #) (
& ž # " " #) (# " " " % +

7 _ Se[f^S d ^ [g 2 b] g ž WV g ž U `

` Wj f Y W` Wd S f [@ 9 Ee Wc g W` U [` Y

? @ 9 B e

? @ 9 B e

\$ &

? @ e \$ &

? @ 9 B e

? @ 9 B e

? @ 9 B

? @ 9 B e

? 6 E 3 ? > & . # ' & (? @ 9 B e

\$ &

? @ 9 B e

? @ e

\$

2

? @ 9 B e

? @ 9 B e

3 ? >

)

3 ? >

,

%

3 ? >

& (

.

3 ? >

? 6 E +

3 ? >

S ^ ^ a Y W` W [U Z W_ S f a b a [W f [U e f W_ U W ^ ^ f d S ` e b ^ S `

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' i 3 # 6 Y a z f

\$ & #)

6 @ 3 7 F E

7 F H

F : 5

? 6 E ! 3 ? >

4

? @ 9 B e

[` Z W d [f W V T a ` W _ S d d a # ? X 8 S E [^ g d W e k ` V d a _ W e
4 ^ a a _ 4 ^ a a _ e k ` 4 V E d k a _ W
f W ^ a _ W d W T [a ^ F a 4 Y 6 k V [e a d V W d e

? 6 E ! 3 ? > \$

&

\$ " (& .

+ .

\$ # . ? 6 E !

3 ? >

) " .

? 6 E ! 3 ? >

\$ + # *

? 6 E !

3 ? >

? @ e

3 ? >

+ \$ "

3 ^ ^ a : E 5 F

+

; 4 ? 8 E

8 S ` U a ` [S ` W _ [S

8 3 E Z i S U Z _ S ` 6 [S 6 [S _ Y a ` V 4 ^ S U]

X S ` e W h W d W

U a ` Y W ` [f S ^ E 5 W g f d a b 8 W 3 [S

\$ ' . % " . 8 3

\$ & \$ # 8 3

(" " p * "?" 6 E ! 3 ? >

' "

& " . 8 3

? 6 E & "

\$ " .

3 ? >

&

\$ \$ 8 3

\$ % . & p ' .

@ p ° _ , ! } @ 9 E b S ` W ^ 7 E

? 6 E ! 3 ? > & \$ &

? @ è

s ' s (

\$ " # +

%

% + & ' & (

s ' .

? @ e

%

' %

(" (#

5 ? ? >

3 ? > \$ (

\$ " # (

\$ (

3 ? >

\$)

6

\$ " #)

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' 13 6 8 9 0 f

\$ # # * # %

\$ # #

\$ # # * # %

4 [a W ^ W U & f " d " a " ` E W c

F \$ # F # * F # %

% # %

#

\$ " # (# ' 8 ' 5 " % " "

ž

" " " ' "

\$ ž

' \$ % * " *

7 _ S [g ' e Z a g # X S ž U 2 _ 7 _ S [Z g ' S ' \$ # \$ (ž U a _

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' I 3 # \$ Y @ a z f

S ` V b d a h [V W S T S e [e X a d b d a V g U f d W Y [e f d S f
_ S d] W f [` Y e g b W d h [e [a ` S ` V _ S ` S Y W _ W ` f ž

KEY WARDS @ a ` [` h S e [h W b d W ` S Z 8 á _ Y a V e a W f S ^ U S W y g b ^ Y a [V k

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' 13 # 6 9 a z f

1z5

X S e f c

4 l 3

d W S V

d W S V

\$ # 276
& % ž ' . 6 @ 3

A

U # c%

) " . %" .

B

? T
U # c%

' * \$ # ?) " .

\$ #

%

*

" \$ " & " (" * " # " "

(# \$ # ? % " .

\$ #

%

*

(

275

* # % \$

\$ #

* # %

\$ # *

\$ "? T

*

3

& ž) + * # %

" ž + % \$ #

ž # ž %) %

*

\$ #

F\$ #F# * F# %

' (

* # %

6 @ 3

? S d X S `

\$ # \$ % % # \$ % # \$ # \$

? S d X S `

\$ " # (# "

? S d X S `
E S ` Y W d

\$? # " "

E @ B

U \$ & # 9 0 3

' % \$

? S d X S `

? S d X S `

? S d X S `

BdM_ b`S` fSf[a` YWV[U V[SY` ae[e aX? SdS` ek` Vda_ Wge[Y` VJf YWVdSf[a`
eWgWU[Y

: 7 F[S i W \$ > G < [\$ S 5 : 7 @ 5 Z g % S > ; Y G [6 % g 6 ; @ 9 : a # \$ Y 6 AW @ 9 K g ` % c d [G S a [f
K ; @ 3 [\$ Z g S

ž ? WV [U S ^ 9 W` Wf [U e 5 W` f Wd a X 9 g S` Y 9 VgaS` Y Y I 9 ZgaSg` Y S 5aZ [V ZS [^ V d W` : a e b [f S
' # # & & \$? S f Wd` S ^ S` V 5 Z [^ V d W` ? Wf S T a ^ [U 9 W S Wf [9 ZgaSg W > S T a d S f a d k a X
V a ` \$ Z [` S # # & & \$ D W b d a V g U f [h W U W` f Wd a X 9 g S` Y V a 9 g S I 1 1 L W a g S` V 5 Z [^ V d W`
9 g S` Y 5aZ [Y' \$ # # & & \$

ABSTRACT Objective To explore the value and advantage of next generation sequencing in preim
plantation genetic diagnosis of Marfan syndrome. Methods A Marfan syndrome family was screened for the
FBN1 gene mutation site by exon capture sequencing in the medical genetics center of Guangdong Women and
Children Hospital in October 2016. The screening results were verified by Sanger sequencing. V f Z W _ g f S
f [a ` e [f W i S e [V W` f [X [W V ž F Z W U a V [` Y d W Y [a ` S ` V W j a ` [` f d a ` \ g ` U f [a `
S ` # " Z [Y Z V W` e [f k U ^ a e W ^ k ^ [`] W V E @ B i W d W` e g W ^ W W a f W V W S e b f a Z W _ a d b Z
Y W` Wf [U ^ [`] S Y W _ S d] W d e [` \$ f _ Z d W g b e a f d e W S X f S Z W V a i ` e f d W S _

Results There was a pathogenic mutation of the

% a X f ' Z W S e f a U k e f e a X

\$ " # (# ' 8 ' 5 ") " %

ž ' # # & & \$

\$ ž ' # # & & \$

% ž ' # # & & \$

7 _ \$ [^ S # \$ \$ Z U a _

? S d X S ` e K?`8VEd a _ W

#

? 8 E X [T # [^ ^ [` ž

" ž " \$ ž p % , \$ ' , % ' .

' " \$ (? 8 E

? 8 E)

? 8 E

` Wj f Y W ` Wd S f [@ E e Wc g W 2 U [` Y

b d W [_ b ^ S f S [a ` Y W ` Wf [U

V [Y ` B @ e

* # ? 8 E

H Wd [f B 5 D 3 4 %) % " 3 4 ;

E S ` Y Wd

? [E Wc ; ^ ^ g _ [` S

@ 9 E

1 ž

1 ž 1

6 @ 3

e [` Y ^ W ` g U ^ Wa f [E @ B b a ^ k _ a d b Z [e _ e # \$ # \$ 7 6 F 3

B 9 6

? 8 E

\$ _ >

6 @ 3

1

6 B \$ +

1 ž

\$ % \$

1 ž 2

? S d X S `

\$

\$

\$

E S ` Y Wd

% %

#

A ^ [(Y a

9 # B # \$ " # &

#

3 4 %) % "

3 4 %) % "

S #

E Wc

\$ " # (# "

? S `

@ 9 E

B 9 6

B 9 6

1 ž 3

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F \$ W \$ ' 1 3 # 6 9 a z f

E @ B

; A @ 3 ? B > ; E 7 C F ? 6 7 E ; 9 @ 7 D

6 @ 3

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' I 3 # 6 Y @ p z f

274

		@9 E		E S ` Y Wd				
	B 5 D			6' %		\$		
E S ` Y Wd	@9 E		6(\$		\$			Y Wd
	@9 E							

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F \$ W \$ ' 13 # 6 4 0 f

& _ _

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$! # 3 6 9 a z f

\$ % & &

F U S V Z W d [` \$ " # (# \$ " #) # # + * > a Y [e f [U # + * () % % ž * & # % # (ž . # (4 a d d _ S ` F U S V Z W d [` O U _ 4 a d d _ S ` ` p F U S V Z W d [" ` > a Y [e f [U 4 a d d _ S ` ` F U S V Z W d [` O U _ 4 a d d _ S ` ` p F U S V Z W d [" ` ž " " . F U S V Z W d [` 4 a d d _ S ` `

F Z W h S ^ g W a x . F U S V Z W d [U _ 4 a d d _ S ` ` p b d W [U [Y f Z W b d a Y a e [e a X Y S e f d [U U S ` U W S X F W d S V [U S ^ a b W S f [a ` > ; > [[# 5 3 ; 5 g [X S ` I W ` j ` E S ; Y > W [G < [` Y # 1 9 " q 1 " H j W B () B B A D A B A B A A q a (U W + A F , H E y ` e 5 0 ' 6 ' C e i b q n a @ % P ! ! 7 " Q M " @ D F Q % W O B 9 U C E " q Y

* # +) " ' & \$ # ž) % " " & (\$ ž) % " " & (% ž) % " " & (& ž) % " " & (7 _ & [[% ' a % # (2 % ž U a _

1Z

4 ? ; > [Y Z f
\$ E b W W V 5 F

4 a d d _ S `) ^

%&

J

ž ' . p

& ž) .

p p

i We f Wd ` T ^ a f

F U S V Z Wd [`

(

B H 6 8

F U S V

Z Wd [` S U f [`

9 W ^ B d a

1

F U S V Z Wd [`

1Z

F U S V Z Wd [`

\$ " # (# \$ " #) #

+ *

F U S V Z Wd [`

&

U ' ° P

+ *

" "

+ * % \$ p * # & # ž (% & % &

T a V k _ S e e 4 ? ; \$ W j \$ & ! _

\$ \$ ž \$ & % # ! _ % & # (&

& % (*

*)

J

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' i 3 # 6 Y a z f

% J 2z3
4

% 4 a d d _ S ` F U S V Z W d [`

1z4 \$ 4 a d d _ S ` ` `
E B E # E + ž " F U S V Z W d [`
F Yi T %

2

2z1

+ * ()
% % ž * & , # % #
((ž , # (

2z2

4 a d d _ S ` F U S V Z W d [`
O U _ 4 a d d _ S ` ` p F U S V
Z W d [: ' " ž " " , #

3

U, OFY, TAB 3 Sh B O A P % "" e.ò B O O (0+

⌘ " ⌘ "*"

f Z W i Z [f W T ^ a a V U W ^ ^ U a g ` f S ` V _ a ` a ` g l
b W d U W ` f S Y W d W e g ^ f e a X f Z W b W d [b Z W d S ^ T ^ a a V a d T a F W W S d d a i e f W _ U W ^ ^
b W d U W ` f S Y W S ` V S T e a % U W U a e g [` f d Z W d l g W d l e b a Z W d S ^ T ^ a a V e f W _ U W ^ ^ e S ` V T a `
S d W S ^ e a Z [Y Z C o n c l u s i o n ` T h e a b s o l u t e c o u n t i n g r e s u l t s o f 3 0 + h e m a t o p o i e t i c s t e m c e l l s
c a l c u l a t e d b y t h e X ^ a i V [d W U f h a X g _ Z W W a W f U k f a _ W f W d S U W d W W g S e T W W S e S d W ^ [S T ^ W
T S e [e X a d U S ^ U g ^ S % U W W ^ Z W ` g _ Z T W W d d a S X S b ^ S ` f T W X a d W Z W _ S f a b a [W f [U e f W _
KEY W ARDS 3 ' a Y W ` W [U Z W _ S f a b a [W f [U 3 e f W a _ U W W ^ U W W S ` e a d ^ S ` f S f [a `
5 k f a _ W T d k ^ g f W 5 a g ` f [` Y

S ^ ^ a Y W ` W Q U # * ? E 6 (&
Z W _ S f a b a [W f [U e f W _ S U W a ^ f B 5 F e b ^ S ; ` d S f [a `

&
5 6 % & 1 2
9 5 E 8
' (\$ " * " 5 6 % &
5 6 % & # " Y !] Y ! V \$ ' .
. \$. 5 6 % & ' .
" z # . 9 5 E 8
5 6 % &
? @ 5 O ' > # ' !] Y
+ + ' 5 6 % & O \$ # ' !] Y
+

; : E 3 9 7 f W d ` S f [a ` S ^ E a U [W k a X : W _ S f a b a W d
S b k S ` V 9 d S X f ; T E : Y 3 [9 7 W W d [` Y
+ + (1 2 3 1
4 6 ; E : 3 9 7 6 @ 3 # _ >
B d a 5 A G @ F ' # _ >
4 d [5 k f W 7 # # \$
5 6 % & \$ p \$ '
1 \$ p *
1 2 1 2
5 6 ' 8 ; F 5 > ! ; # B # " >
\$ " # + # \$ " # + # \$ 5 6 ' 8 ; F 5 > ! 5 % & B # " >

* + : E 5 F # ' ! > . ' @ % # ' ! >
4 a ` W _ S d d a i f d S ? E b ^ S ` f @ f [# a ' ! > # "
B W d [b Z W d S ^ T ^ a a V e f W _ U W ^ # ^ " >
f d S ` e b ^ B 4 E 5 F [a ` G _ T [^ [U S ^
U a d V T ^ a a V f d S 5 4 B ^ S ` f S f [a ` # ' #)
& + \$ p # () & " " >

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' 13 # 6 9 a z f

'_ [`

*

4 d [5 k f W 7

2

? D 8 ^ a i

2 1

7 (

; E : 3 9 7

1 7 4

5 6 % &

) 0 4 P 3 6 t 3 6

E B E # E + ž " 9 d S b Z B S V ž B " d [e _

~ Y i T

B W S d e a `

\$ " \$ "*" 4 d [5 n b i (3
\$ * < ? a ^ 6 [S Y ` F Z W \$ ' 1 3 # 6 Y @ z f

B 7 5 0 % & 8 ; F 5 5 6 & ' 4 d [5 k f W 5

*

+ + & E g f Z W d ^ S ` Y E : 3 9

5 0 % & B 5 6 & ' 8 ; E 5 5 8 E &

5 6 & '

F # 7 U S V Z Wd [`

\$

7 U S V Z Wd [` 3 > > # F # 7
\$ " #)# \$ " # +% 3 > > #) \$
%" F # 7 U S V Z Wd [` F #
7 U S V Z Wd [` F #
7 U S V Z Wd [` 3 > > F # 7 U S V Z Wd [`
I 4 5 3 > > F # 7 U S V Z Wd [`
F # I 4 5 7 U S V Z Wd [5 4
3 > > F # 7 U S V Z Wd [`

\$ " # * * # ' & \$ * %
ž ') # # + +
\$ ž ') # # + +
7 _ S*[+^%" & * * \$ 2 c c ž U a _

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' i 3 # 6 Y g a z f

3 U g f W ^ W g] W _ [S

3 >

3 U g f W ^ k _ b Z a T ^ S e f [U ^ W g] W _ [S

3 U g f W _ k W ^ a [3 W > W g] W _ [S

3 > >

3

3 >

7 WS V Z Wd [`

' 7 U S V Z Wd [`

(

* + 3 >

3 > 3 > > 3 ? > 3 > >

3 > 3 > >

4 F I 4 5

"

F #

F #

\$ F

% F

9 #

9 #

E

E ! \$ 9

6 @ 3

7 U S V Z Wd [`

&

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' i 3 # 6 Y g a z f

3 > > F #
7 U S V Z W d [` 3 > >

3 > >

3 Y S [E S ` ? S V Z g] S B Z d a ` a b a g ^ a e 3 F ž 3 g f a _ S f W V
E U d W W ` [` Y E k e f W _ X a d 3 U g f W ? k W ^ a Y W ` a g e > W g] W _ [S 6 W f W U f [a `
[` 4 ^ a a V ? [U d a e 0 a ; b [7 U 7 ; E _ k S e f W W _) e S < ? S T S E ž
< * & S & T 4 Z T E B [N , T 2 0 0 7 , F 4 @ T A 0 ' \$ U F a D e y 0 ĩ p 0 # Õ \

U [d U D @ 3

@ E 5 > 5 D @ 3 U [d U D @ 3
 # " @ E 5 > 5
 U [d U D @ 3 & (@ E 5 > 5 & (
 U [d U D @ 3 D A 5 U [d U D @ B 5 > 5 3 G 5
 U [d U D @ 3
 U [d U D @ 3 # * # # #) (&
 U [d U D @ 3 @ E 5 > 5 @ E 5 > 5 U [d U D @ 3
 D A 5
 U [d U D @ 3 @ E 5 > 5 * " ž & % . ' * ž) 3 G 5 " ž) ' \$ @ E 5 > 5
 U [d U D @ 3 U [d U D @ B 5 > 5 U [d U D @ 3
 D @ 3 D A 5

7j b d e f a ` m W S ` V U [[U S ^ e Y [X U S ` W a X U [d U D @ 3 [U S ` U W d f [e e g W e S ` V
 e W d g _ a X b S f [W f e i [f Z ` a ` e _ S ^ U W ^ g ` Y U S ` U W d
 K 3 @ 9 9 g S ` Y c g S ` L : 3 @ 9 C [S 8 3 e @ Z J [[Y I S G 8 W [
 6 W b S d f _ W ` f a 6 W k ` S U a ` B a W k e ` W W k S S ^ E [U Z 5 8 [` (\$ * " " "

ABSTRACT **Objective** To explore the expression level and clinical significance of circular RNA
 U [d U D @ 3 a _ U S ` U W d f [e e g W e S ` V e W d g _ [` b S f [e W 5 f z M e t h o d s Z ` a ` e _ S ^ ^ U W ^ ^
 The pathological tissue specimens of NSCLC patients were collected. circRNAs with significant differential
 expression in cancer tissues and adjacent tissues were screened out. Volcano plot was drawn. U ^ g e f W d S ` S ^ k
 e [e i S e b W d X a d _ W e Z 5 F > Z W b e S W d S W a W S ^ S ` Z k h a Z W U f a W W d i a W d W d U a g ^ b ^ W U f
 W V X a d U [d U D @ 3 V W f W U f [a ` ž F Z W V [S Y ` a e f [U h S ^ g W a X e W d g _ U [d U D @ 3 a ` @
 S ` V f Z W S d W S g ` 3 / G d i f S e W d U d a n d W W V ž F Z W d W ^ S f [a ` e Z [b T W f i W W ` e W d g _ U [d U
 S ` V U ^ [` [U S ^ U Z S d S U F e S u t s [a t o t a l o f 1 8 1 S i r c R N A s W i t h s i g n i f i c a n t d i f f e r e n t i a l e x
 pression in cancer tissues and adjacent tissues were identified. U ^ g W d X Y g b d W Y g ^ S f W V W j b d W e e [a ` e S ` ^
 (& X V a i ` d W Y g ^ S f W V ž W j b d W e e [a ` e ž F Z W d W e g ^ f e a X h a ^ U S ` a Y d S b Z S ` V U
 ^ k W j b d W e e W V U [d U D @ 3 U S ` U ^ W S d ^ k V [e f [` Y g [e Z @ E 5 > 5 U S ` U W d f [e e g W e X
 b d W e e [a ` ^ W h W ^ e [` @ E 5 > 5 b S f [e W Y f e X 5 k W W W e [Y ` [X [U S ` f U a d d W ^ S f [a ` i

(B) &
 (# * " " "

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' 1 3 # 6 Y a z f

S ` V f Z W 3 G 5 H S) G W d u s e a There are significant differences in the expression of circRNA in NSCLC cancer tissues and adjacent tissues. Serum circRNA has a good diagnostic value for NSCLC S ` V U [d U D @ 3 _ S k T W d W ^ S f W V f a V [e W S e W b d a Y d W e e [a ` ž

KEY WORDS @ a ` e _ S ^ ^ U W ^ 5 [^ d U g Y ^ S S D U W d f E [W e g _ A e U g d h W

^ g ` Y U @ E 5 W B # @ a ` e _ S ^ ^ U W ^ ^

\$

%

&

@ E 5 > 5

@ E 5 > 5

D @ 3 U [d U D @ 3

1

1 ž 1

\$ " # + # \$ " # + # \$

' (@ E 5 > 5

"

: 7

) " .

' U _

3 4 5

"

)

%

(\$ ž # %

5 = ? 4 F ` ;

\$ %

5 = ? 4 ; U F ` ;
\$ " #)# \$ " # *# "

* \$

* # () " % % \$

ž \$ % (" " "

\$ ž \$ % (" " "

% ž \$ % (" " "

7 _ S [[^ g Z g S S i \$ 7 k % ž U a _

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F \$ W \$ ' 13 # 6 4 2 f

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' I 3 # \$ @ a z f

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' 13 6 8 9 0 f

"

#

\$

%

&

'

3 ? ;

U F ` ; F 5 ;

U F ` ;

5 = ? 4

5 =

5 = ? 4

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' I 3 # \$ @ a z f

_ [D \$ ([D (

\$

 _ [D \$ ([D (3 ? ;
\$ " # *# \$ " # ++ # \$ (3 ? ;
* +3 ? ; #^\$ (

ž
\$ ž

& (# " " "
& ' " " " "

E \$ " # + " # " " &

7 _ \$ [i ^ X # (% ž U a _

z E b W S d _ S ` S ` S ^ k e [e e Z a i W S B Z S F F Z W [` U [V W ` U W a X 5 6
S ` V [` U [V W ` U W ` X K ? e 3 5 9 e s f W Y S f [h W ^ # 0 5 d d W a S f W V h W f Z U d d W ^ S f W V i [f Z _ [
+ (z Conclusion The levels of miR126 and miR 96 in peripheral blood of patients with AMI are
significantly increased S ` V f Z W k Z S h W S Y a a V U a d d W ^ S f [a ` i [f Z b ^ S f W ^ W f S U f [h S f [a
i Z [U Z U S ` T W g e W V S e S V [X X W d W ` f [S ^ V [S Y ` a e [e _ S d] W d X a d 3 ? ; S ` V Y g [V V

KEY WORDS 3 U g f W _ k a U S d V [_ S ^ [` X S d U f [a ` Y i T
B 3 5 # B 3 8

3 U g f W _ k a U S d V [S ^ [` X S d U f [a ` Y i T
3 ? ; F S T # ^ W ^ [` [U S Y d a g l e a X Y i T
3 ? ;

? [U d a D F
@ 3 e _ [D @ 3 e !) # ! ' % ! + " z " "" "z + * "
D @ 3 & + z # % z % * z # \$ z) "& z ' "" # (#)
+ (4 ? ;] Y f _ \$ # z # z) # \$ # z # z & # \$ z & # " # (
\$ [D (\$ " # ' z *) # ' # (z * ' " z " %) z * & *
_ [D (# * # & z \$ * # \$ # % z & * " z " \$ z * ()
% # % # " z % \$ # " # z \$ & ' z " & (z * % "
D @ 3 # \$ [[# \$ (# * z) % * * z + + " z " "" & + & *
' # # z + # # % # & z (# ' z % % (z ' (\$

& _ [D @ 3 e
3 ? ;

3 ? ; _ [D (_ [# \$ (1 z 2
1 z 2 1

* " " p "+" & _ >
% z \$, # +
1 \$ \$ _ > _ [D @ 3 e
1 z 1 _ [# \$ [[D (

\$ " # * # \$ " # ++ # \$ (\$ _ > & # ' _ [`
3 ? ; & " " d ! _ [` D @ 3
) # ' ' & + z # % z % * 3 _ T [a ` F D ^ | a ^

* + 3 ? ; _ [D _ [D U 6 @ 3
' " % + ' " z z " \$ _ [D U 6 @ 3 # " >
\$ z) & 4 a V k _ S e e
[` V W } ; # > U 6 @ 3 G (

3 4) ' " B " 5 D \$ _ [D @ 3 e
3 ? ; % + ' # " _ [`
@ W i k a d] Z W S d f S & e " + ' # " e (" \$ " e) \$ # " e
e a U [@ K : @ ` (\$ ^ f _ [# \$ [[D

. % Z B 5 ; + (# _ >
E S ` f S 5 d g l
5 6 \$ b T ! S
3 ? ; B 3 5 #

3 f f g ` W @ j F 5   \$ B 3 5 #
_ >

B 3 8

1 2 2

_ [D \$   [D (_ [D \$ (_ [D \$ (_ [D (_ [D (

1 2 3

% #
? 3 5 7

1 2 3

_ [D \$   [D (_ [D
\$   [D (5   \$ B 3 5 # B 3 8 + "V
? 3 5 7 _ [D \$   [D (
5   \$ B 3 5 # B 3 8 + "V ? 3 5 7

1 2 4

E B E \$ \$ z "

Yi T

F

E b WS d _ S `

2 2 4

_ [D \$   [D (+ "V ? 3 5 7

_ [D \$ (_ [D (+ "V ? 3 5 7

_ [D \$ (_ [D (

2

2 2 5 miR 126 _ [D (+ "V ? 3 5 7

E b WS d _ S ` + "V ? 3 5 7 _ [D

2 2 1

_ [D \$   [D (_ [D \$ (_ [D (

\$ (_ [D (

\$

3

_ [D @ 3 e
D @ 3

_ [D @ 3 e 3 ? ;

2 2 2

_ [D \$   [D (_ [D \$ (_ [D (5   \$ B 3 5 #

3 ? ; 3 ? ; _ [D \$ (

B 3 8

_ [D \$ (_ [D (%

+ 3 ? ; _ [D \$ (3 ? ;

2 2 3

miR 126 _ [D (E b WS d _ S ` 5   \$ B 3 5 # B 3 8 _ [D
\$ (_ [D (

_ [D \$ (3 ? ;

_ [D \$ (

_ [D @ 3

&

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' 1 3 # 6 Y a z f

' _ [D \$ ([D (+ " V ? 3 5 7 .
F S T ^ W ` U [V W ` U W a X S _ k S e U [W S t f S f [W ` f e # \$ { f Z V _ + [(X W W W W e f _ [D

_ [D \$ (	# # ž # +	" " ž " "	" " ž " "	\$ \$ ž % *	% % ž ')
_ [D \$ (	) ž # &	\$ & ž ) (	\$ & ž ) (	# \$ ž % *	* # + ž " &
F					(ž ' * (
					" ž " # "
_ [D (	' ( ž \$ '	# # ž \$ '	% % ž) '	# # ž \$ '	# " # \$ ž ' "
_ [D (	" " ž " "	# \$ ž #)	" " ž " "	" " ž " "	# \$ ž #)
F					% ž + " *
					" ž " & *

" _ [D (_ [D \$ ([D (3 ? ;
D @ 3 # * % [D * % B 5 ;
3 ? ; + " V ? 3 5 7
_ [D (3 ? ;
_ [D \$ ([D (_ [D (_ [D \$ (B S d S Z g 3 ? ;
_ [D (3 ? ;
_ [D (3 ? ;
^ W h S V W ` Y _ [D (3 ? ; _ [D \$ ([D (3 ? ;

3 ? ;
% B 3 5 # 9 B ; ; T ! ; ; ; S
9 B ; ; T ! ; ; ; S
B 3 5 #
5 6 \$ b
B 3 8
B 3 5 # 5 6 \$ B 3 8
_ [D @ 3 e

_ D @ 3
&
_ [D (\$ ž (_ [D (3 ? ; # ' _ [D \$ (

ž ? [U d a D @ 3
< ž \$ " # \$ * + # (' + # ((# ž
\$ G T Z [D a U] W ` e f W S Y Z W 5 S ^ ž I [V W e b d W S V _ [U
d ` S V k e d W Y g ^ S f [a ` [` _ V g ` e f W S t e W W e d W e S W W V
S ^ f W d S f [+ d > ž [7 g d [D @ W S g d # 3 8 e U [# " \$ (# " & # ž
% L Z S ` Y L Z S ` Y L Z S ` W f < S ^ # W j a b d W e e [a ` [e e g b
b d W e e W V T k Y _ + (U e W d M [[S _ T [d d S [` _ [U d a h S e U
f Z W ^ [S < ž U k W 5 W d W T 4 ^ a a V \$ 8 ' # 3 8 i ' ? W f S T
* " + * \$ \$ ž
& ž _ [# D \$ (< ž \$ " # & * () * & * * ' " ž ' ž ? ž * ž \$ " # \$ % (\$ & \$ ž
(5 S U U S _ a 7 2 3 _ S ` B ? ž B Z S d _ S U a ^ a Y [U f Z W d k a d] Z W S d f S e e a U [S f [a < ž U 5 3 e e W e f Z W S d : W S d f \$ 8 ' S # (#) '] ' < X S [: W S d f 8 S # () ^ ? ž

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' i 3 6 Y a z f

S ` V b ^ S k S ` S U f [h W d a ^ W [` W S d ^ k b d W h W ` f [a ` S ` V U a ` f d a ^ a X
KEY WORDS : k b W d f W f d [S ^ X [D W W [T ^ ^ a S a f V [L a W ^ ^ V B e S d [a g [e b d W V Y U Z [a `

3 f d [S ^ X [3 B d [^ ^ S f [a `

#

7 e e W ` f [S ^ Z k b W d f W ` e [a `

3 8

\$

7 : 3 8

7 : 3 8

% 7 :

3 8

&

D W V T ^ a a V U W ^ ^ V [D e f d [T g f [a ` i [V f Z

D 6 I

D 6 I

D 6 I

= " • 7 : d i = b) d i W 0 p P € @ ú Á f U ' D 6 I

3 8

1

1 z I

\$ " # *% \$ " \$ "% 7 :

\$ " * % + p) & (" z z (x ' #

\$ \$ * (

	#	Yi T	F
!	(" ž (+ž %)	' + ž ((ž%ž #	# ž %* (" ž # ()
	* %!"	% \$!(	" ž # ' % " ž (+ (
	# ' # " ž & +	# ## (ž + \$	# ž (+ # " ž # + %
	+ (ž \$ +	) # " ž)	# ž \$ (# " ž \$ (\$
	% & \$ % ž) *	# % \$ " ž " "	" ž % (& " ž ' & (
I 4 5 > # ! >	& + % & ž \$)	# + \$ + ž \$ %	" ž ' # ' " ž &) %
@ > # ! >	(ž) # " ž #	(ž) # ' ž Z \$ (	" ž \$) + " ž) * #
> > # ! >	& ž * # % ž + ' # ž)" % ž %)	& ž % ž ž ' #	# ž & + & " ž # %)
D 6 I .	# % ž # ž ' ž ' # ž % ž % ž ' ž +	\$ ž " # ž % ž ' \$	* ž (* # . " ž " ' "
3 E FG ! >	\$ & ž # % ž ((\$ # ž # % ž ' \$	# ž (' (" ž " + +	
3 > FG ! >	\$ + ž # \$ ž) + # * ž + ž) ž (	' ž) \$ (. " ž " ' "	
E 5 d _ a ^ ! >	) * ž \$ % ž " * (' ž \$ # ž & +	% ž) + ' . " ž " ' "	
F 5 _ _ a ^ ! >	% ž (#) ž ž ') \$ ž)" & ž ' (ž #) &	. " ž " ' "	
F 9 _ _ a ^ ! >	# ž & (ž ž + ' # ž (" # ž %	# ž " +) " ž \$) &	
: 6 > _ 5 _ a ^ ! >	# ž # & ž % + # ž # ' ž ž & \$	" ž # () " ž * ()	
> 6 > _ 5 _ a ^ ! >	\$ ž # # % ž # ' # ž # * ž ' &	" ž * + * " ž %) "	
> 3 6 U _	& ž % & ž \$ * % ž &) ž % #	\$ " ž ") * . " ž " ' "	
> H 7 8	& * ž % ž & & ' + ž & ž ' ž \$	# * ž ' ' % . " ž " ' "	
G 3 _ _ a ^ ! >	% % ' ž * (* " ž ž ' \$)) ž (' & \$ ž # *	& ž)) # . " ž " ' "	
3 5 7 ; ! 3 D 4	# + # % ž \$ + * # \$ ž % #	" ž " % * " ž * & (
	% + \$) ž \$) # ## (ž + \$	\$ ž (\$ # " ž # ' "	

	3	4	5
!	(" ž '\$ ž \$ (	( \$ ž (' ž ž %	(% ž (# * ž
	' & ! #	#) # ! #	# # !
	* * ž % %	& # & ž \$ +	% # ' ž) +
	' ' ž \$ #	\$) ž # &	\$ # " ž ' %
	\$ % \$ % ž + (	( \$ # ž & %	' \$ (ž % \$
	% # % \$ ž \$ +	# " % ' ž) #	* & \$ ž # #
I 4 5 > # ! >	(ž * # (ž Z \$ ' (ž & # ' ž # +	(ž \$ # * ž # *	(ž \$ # * ž # *
@ > # ! >	& ž ' #) ž ž %	' ž " \$ * ž ' ' ' ž) \$ & ž (	' ž) \$ & ž (
> > # ! >	# ž * " (ž ž & # # ž ' " * ž % +	# ž % % ž % &	# ž % % ž % &
D 6 I .	# % ž # ž) # + # & ž '\$ ž % ž ' # ' ž ' (ž % ž)	# ' ž ' (ž % ž)	# ' ž ' (ž % ž)
3 E FG ! >	\$ % ž # \$ ž * ' \$ ' ž # % ž ((\$) ž # & ž %	" ž # ž #	ž) ' z ž) (ž) '
3 > FG ! >	\$) ž # ' (ž ' * % " ž # ž (') & ž #) + ž (\$ * # ž \$ * % ž % &		
E 5 d _ a ^ ! >	% ž (# # ž # * % ž) # ' ž Z \$ \$		
F 5 _ _ a ^ ! >	# ž ' " # ž ') # ž % ž ž \$		
F 9 _ _ a ^ ! >	# ž # ' ž ž & # # ž " * ž % +		
: 6 > _ 5 _ a ^ ! >	\$ ž " # ž ž + (\$ ž \$ ' ž ' *		
> 6 > _ 5 _ a ^ ! >	& ž \$ (ž Z \$ (& ž & # ž \$ &		
> 3 6 U _	& + ž % ž # ' &) ž \$ % ž (
> H 7 8	% \$ ' ž) \$ % ž Z (+ % &) ž * * \$ ž # (
G 3 _ _ a ^ ! >	# \$ # \$ ž ' " & # & ž \$ +		
3 5 7 ; ! 3 D 4	\$ (\$) ž " *) \$ ' ž " "		

2ž4 RDW 7: 3 8 DA 5 # ž \$ 0 % I # % ž % .
D 6 I DA 5 3 8) " ž + . &) ž # .
3 5 G " ž (% # " ž ' # + p " ž) % ##

E
> " ž + \$ * " ž \$ (# \$ ž ž
D 6 I # ž " (+ " ž % * ' \$ ž # #
3 > F Ž" ž # & % " ž # " ' # ž " '
E 5 d Ž\$ ž) % (\$ ž * + \$ \$ ž) \$
F 5 Ž" ž \$ % ' " ž # % * ž *
> 3 6 " ž \$) + " ž # # ' # ž
> H 7 8 Ž" ž ') \$ " ž \$ ") \$ ž
G 3 " ž ' ' * " ž # \$ '

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' I 3 # 6 9 a z f

\$ " # % \$ \$ ' " & +

ž F Z W D A 5 U g d h W e Z a i W V f Z S f f Z W U a _ \$ \$ ` W V 5 6 7 8 W S f [a ` a X e W d g _ >
U Z S ` Y ` V ` a [X ` & f Z W 3 G 5 a X U S d a f [V S i f Z Z [W b Z a i e S e W d a f Z [W d l f Z S c g f W W 3 G 5 h S ^ g W a X >
B > \$ S ` V # 5 6 \$ ^ a C o n c l u s i o n Serum Lp P L A and C D 1 4 7 in patients with carotid atherosclerotic
plaque are significantly increasedž The combined detection of Lp 2 P a n d C D 1 4 7 is helpful to assess the
stability of plaquež

KEY WORDS > [b a b d a f W [` S e e a U \$ 5 6 W V 5 6 7 8 W S f [a ` a X e W d g _ > U b ^ S c g W

& !

#

\$ %

3 \$

> [b a b d a f W [` S e e a U \$ 5 6 W V 5 6 7 8 W S f [a ` a X e W d g _ > U b ^ S c g W

& 5 6 # &)

5 6 # &)

? ? B

> b B \$ > 5 6 # &)

F > E 6 f
D A 5 B W S d e a `

2

271 > b B \$ > 5 3 # &)
> b B \$ > 5 3 # &)

> b B \$ > 5 3 # &)
\$

272 > b B \$ > 3
5 # &)
> b
5 6

⌘ " ⌘ "*" * *

Z e 5@B 4 H 5 3 ?#

\$ # #

5 Z e 5 D B @ 8 4 #
H 5 3 ?# ; 5 6 \$ " # *# \$ " # +

* ; 5 6 * \$ 3 5 ; F ; 3 % (

Z e 5@B 4 H 5 3 ?#

; 5 6 %

Z e 5@B 4 H 5 3 ?#

Z e 5@B 4 H 5 3 ?#

@ P

\$ " # + # (# "

ž " (% " " "

\$ ž " (% " " "

7 _ S [↑ k# (l%ž2U a _

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W S ` I 3 # 6 Y g a z f

@8 4 S ` V H 5 # ? Wh W ^ e a X b S f [W ` f e i [f Z V [X X W d W ` f b d
i W d W U a _ b S d ` W W S T X W X W d V S W S # S U W ^ S ` ? W [W d U g d h W i S e R e s u l t s W V X a d e g d h [h S ^ S `
The serum levels of hs CRP @8 4 S ` V H 5 # ? f Z W a T e W d h S f [a ` Y d a g b i W d W Z [Y Z W d f Z S ` f Z
f d a ^ Y d a g b i Z W ` f Z W k i W d V S W _ f [Z f W W V X X a W d Z W W U W e S [e f e S ^ S f [e f [U S ^ ^ k e [Y ` [
F Z W ^ W h W ^ e a X e a g _ S Z W H 5 # ? ` 3 5 ; b S f [W ` f e i W d W Z [Y Z W d f Z S ` f Z a e W [` F ;
S ` V f Z W V [X X W d W ` U W i S e e f S z f [W d g _ U S @ 8 4 H 5 # ? # U X a [_ U T S [` f W V V [X X W d W `

f [S ^ V [S Y ` e e B e 6 X B S ^ @ W 8 4 3 G 5 h S z g W e 5 D B 3 G 5 z h C H 5 3 V ?
3 G 5 h S ^ z g W e W d g _ Z e F Z W Z [Y Z W d f Z S ` f Z a e W [` 3 5 ; b S f [W ` f e i W d W Z [Y Z W d f Z S ` f Z a e W [` F ;
f Z W e W h W d [f k a X f Z W Z W Z W S z W j b d W e e [@ 8 4 S ` e W H 5 # ? B e b S D e f [h W
^ k U a d d W ^ S f W V i [f Z f Z W e W h W d W d f g k _ a z X e B Z W S B [V e W S e W h W ^ e a X e g d h [

h a d e i W d W ^ a i W d f Z S ` f Z a e W T W X a d W % V 6 W 6 f a _ X W f d W S S f V _ Z W W f e W X W d W [U W W S X f W d
i S e e f S f [e f [U S ^ ^ k F e Z W e g k h U S S f d S f W a X b S f [@ W 4 f S e i V [H 5 3 Z [Y Z e W d g _ Z e 5 D
W j b d W e e [a ` i S e ^ a i W d f Z S ` f Z S f v a f X W a v i [W X W d W e U W a ` S b S e f f [S W [f e e f [U S ^ ^ k e [Y

z Conclusion Serum hs CRP @8 4 H 5 3 ? # ^ W h W ^ e S d W U ^ a e W ^ k d W ^ S f W V f a f Z W a ` e W f S ` V
a X ; 5 6 V f Z W [` U d W S e W [` 3 5 ; b S f [W ` f e i W d W Z [Y Z W d f Z S ` f Z a e W [` F ;
W h S ^ g S f [a ` U S ` T W _ S V W T S e W V a ` f Z W W j b d W e e [a ` a X f Z W S T a h W e W d g _ X S U f
KEY WORDS : k b W d e W ` e [f [h W 5 @ g d W S W S f d [f h d S b e a H 5 3 W d g _ U S @ 8 4 H 5 3 V ?
e [a ` _ a # W e g Z W _ [U U W d W T d a h S e U g ^ S d V [e
S b k

; e U Z W _ [U U W d W T d a h S e U g ^ S d V [e

W S e W 6

' "

; 5 6 3 U g f W

U W d W T d S ^ 3 5 ; X S d U f [a ` F d S `

e [W ` f [e U Z W _ 3 U S f f S U]

\$

; 5 6

%

@ 8 4

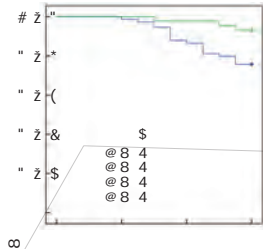
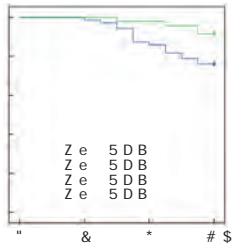
&

H 5 3 ?

5

Z e 5 D B

š # C



∞
⊙

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' I 3 # 6 \$ @ a z f

f Z W V [X X W d W ` U W i S e e f S f [z e f f Z W S W Y ` [X [U S ` f
a X ` W a ` S f S ^ Z k b W d T [^ [d g T [` W _ [S i S e e [Y ` [X [U S ` f ^ k U a d d W ^ S f W V i [f Z
ž 3 X f W d X g d f Z W d U a ` f d a ^ ^ [` Y X a d T a [f d Z W d i X W U M S z a f d e [e g U Z S S e W M e f W f [a ` S
S ` V [_ b d a b W d Z X W W W Y d W W a X ` W a ` S f S ^ Z k b W d T [^ [d g T [` W _ [S i S e e f [^ ^ e
b W d [b Z W d S ^ T ^ a a V B 3 S ` W B W f ` S W S W ^ Z k b W d T [5 ^ [5 d = g T P 4 W Z _ S W S > 6 :
` W Y S f [h W U a d d W ^ S f [a ` i U I F B Â C O S P Ö P Z B Q p D B 3 b a Ö Y B 3
O S O " S I Z] S ' O • E f j a C E E O Â O M O T E E P S P % Ö y B W J C P Â Ö T ! E P E P B Â ö , H G F D B M O B S F

1z3 B 3 B 5 F B 5 F
B 3 B 5 F %
B 3 B 5 F

> 6 : 5 = 5 = ? 4 B 3
B 5 F
1z4

E B E \$ \$ ž "

Yi T

> a Y [e f [U B W S d e a ` 2z3 B 3 B 5 F
B 3 B 5 F

&

2

2z1 B 3 B 5 F B 5 F
B 3 \$

2z4

B 3 B 5 F

2z5

> 6 : 5 = 5 = ? 4

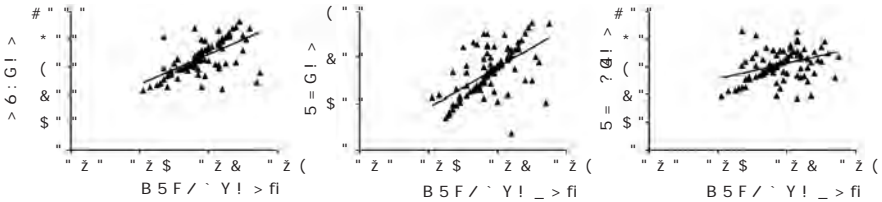
2z2 B 3 B 5 F
B 3 B 5 F > 6 : 5 = 5 = ? 4
(

F S T ^ W g ^ f [b ^ W ^ [` W S d e f W b i [e W d W Y d W e e [a ` S ` S ^ k e [e

	# \$ ž \$ # & # ž & " (	+ ž ' (. " ž " " #
B 3	" ž (# # " ž " ' \$	" ž) # % * ž \$ & . % ž " " #
B 5 F	" ž ' % + " ž " & #	" ž ' + * + ž " % # ž " " #

> G1 ^
5 = G1 ^
5 = ? G1 ^
" ' " # " " # " " \$ " " " ' " # " " # " " \$ " " " ' " # " " # " " \$ " "
B 3 / _ Y ! > fi B 3 / _ Y ! > fi B 3 / _ Y ! > fi

B 3 > 6 : 5 = 5 = ? 4
8 [Y g d W d d W ^ S f [a ` T W f i W W ` b W d [b Z W d S ^ T ^ a a V B 3 S ` V > 6 :



\$ B 5 F > 6 : 5 = 5 = ? 4
8 [Y g d W d d W ^ S f [a ` T W f i W W ` b W d [b Z W d S ^ T ^ a a V B 5 F S ` V

ž 9 B 6 G 9 # 3
E 5 A # # 3 4 5 \$
< ž \$ " # # " %
\$ ' % " ž
\$ I S ` Y < ?? S a 9 B Z S a : < ž F Z W U Z S ` Y W e a X T [^ [d g T [` [` ` Wa ` S f S ^ Z k b W d T [^ [d g T [` W _ [S S ` V f Z W U ^ [` [U S ^ e f g V k a X e W U a ` V S d k f Z d a _ T a U k f a b W ` [S S ` V Z U S Z [Y ` g & S f [a ` S T ` a d _ S ^ [f k
4 [d f Z : W S ^ f S Z ' # W & W # f (k % ž
% ž B 3 9 F
< ž \$ " # \$ +
+ # ") (# ") + ž
& ž
< ž \$ " # \$ & ' % & ' % (ž
' ž B 5 F Z e 5 D B
< ž
\$ " # \$ ++) # " + + # # " # ž
(ž
< ž \$ " # # &
* # # ' % # # ' ' ž
))

3

\$ " #)(\$ " # +(3 6 E # # p# % 6 E # + "

\$ " # #) " 4(\$

' \$ * & # '

7 _ & D ^ (# \$ (# (& 2 c c ž U a _

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F B W \$ ' 13 6 Y g a z f

6 a i è e k ` V d a _ W

6 [S Y ` e f [U e k e f V

^ S T a d f a ` [\$ W e # * # # " % + (!

ž ' # 6 E

B > 9 B 3 B B X d W W 5 9

6 E

I S ^ ^ S U 3 g f a 6 7 >

\$

8 ; # \$ % '

3 B d W Y ` S ` U k d W B S B W B d a f W [` 3

B W d] [` 7 ^ _ W d

X d W W Z g _ S ` U Z + a (d [!

B > 9 & () " \$ % B B 3

a ` [U Y a ` S V a f d a X d W W W f 9 S e g T g ([+ * + X d W W 5 9 (* " (%

1ž3

%

6 E

; Z B > 9 B 3 B B X B W W 5 9

3 ; ` Z [T [` 3

6 E D A 5

; Z 3

6 E

; Z 3

&

1ž4

B ^ S U W ` f S ^ Y B a i 9 B Z X S U f a d

E B E \$ # ž "

Y i T

; Z 3 t B > 9 B B B X B B W W

Z 5 9

6 E

2

1

2ž1

1ž1

#

\$ " #) (\$ " # + (

6 E # # p # % t (# + "

6 E

p # % t (

* p

& %

6 E

1ž2

2ž2

; Z B > 9 B 3 B B X d W W

; Z X d W W 5 9

Z 5 9

p # % t (% _ >

B > 9 B 3 B B 3

ž \$ " ; Z 3 7 > ; E 3

m

m

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W S ' I 3 # 6 Y @ p z f

2Z3

6 E

DA 5

% #

DA 5

%

6 E DA 5

F S T % W A U g d h W S ` S ^ k e [e a X f Z W V [S Y ` a e [e a X X W f S ^ 6 E [` f Z W X [d e f f d [_ W e

B 3 B B	3 Ł X d 5 W W	) \$ ž (\$ \$!"	+ % + % !" "	* % ž # '(# † "
; Z	3 Ł B > 9 8 Ł B 3 B B 5 9 Ł X d W W % & !"	+ ' + '# !" "	+ & ž #) # † "	
F		# & ž " (*	" ž % ' '	# # ž ' (&
		." ž " " #	" ž ' ' \$	" ž " " #

ž "

; Z \$! 4

" ž *

" ž (

" ž &

" ž \$

" " ž \$ " ž & " ž (" ž * # ž "

#

6 E DA 5

8 [Y # d W 5 U g d h W S ` S ^ k e [e a X f Z W V [S Y ` a e [e a X X W f S ^ 6 E [` f Z W X [d e f f d [_ W e f W d T k f Z W V a g T ^ W e U d W W ` [` Y S ` V f Z W c g S V d g b ^ W e U d W W ` [` Y

3

6 E \$ #

6 a i ` \$ #

((" .

) 6 E

B 3 B B 3 Ł X Z d 5 W W 4 @ F 6 E

* (. + p \$. + 4

B 3 B B 3 Ł X Z d 5 W W 4 # " 6 E

; Z B 3 > 9 8

; B B > 9 8 6 E

; Z 3

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' 13 # 6 8 0 z f

V 0ÖUP

\$ " # * & & "

+ x!•a •+ (89 @

D

f Z Wd W i S e S e [Y ` [X [U S ` F Z W [X g S W d f W ` f U S W [h W W j b d W e e [a ` ^ W h W ^ e a X
žConclusion The expression of SATB in

NPC tissues is up regulatedžThe high expression of SATB make tumor cells resistant to cisplatin and pacl
itaxel i Z [U Z Z S e S ` S V h W d e W W X X W U f a ` f Z W b d a Y ` a e [e ž

KEY WORDS @S e a b Z S d k ` Y W S 3 F # 5 Z W _ a f _ Z W d g Y k W e [e f S ` U W

` S e a b Z S d k ` Y W S ^ 5 U S d U [` a _ S

@B 5

% " # @B 5

@B 5

3 F

e b W U [S ^ 3 F d [U Z e W c g W ` U W T [` V [` Y b d a

f W E 3 F # 4

\$ % & E 3 F # 4

@B 5 E 3 F # 4

E 3 F # 4

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' i 3 # 6 Y a z f

\$ &

@ B 5

ł ł ł
@ B 5
E 3 F#4 5 S e b S e W S e
b S e W

' E 3 F#4
5 S e b S e W
E 3 F#4
E 3 F#4

B Y b

B Y b 3 4 5
3 F B

E 3 F#4
B Y b E 3 F#4 B Y b

E 3 F#4 @ B 5
@ B 5
E 3 F#4 @ B 5
E 3 F#4
@ B 5

U ? k U ž \$ 3 < ž
\$ " # % + & & ') & ' + ž

\$ F a d] [^ v e w ` w f 9 f a [d @ ` a W S S ^ ž D W S d d S ` Y W _ W ` f
a X f Z W 5 Z d a _ S f [` A d Y S ` [I W d E b W U [S ^ 3 F d [U Z 4 [` V [` Y B d a f W [`
9 W ` W 3 F#4 D W e g ^ f [` % X d a \$ _ S # 6 5 Z d a
_ a e a _ S ^ F d S ` e ^ a U S f [a ` [` 3 U g f W ? k W ^ a [V > W g] W _ [S

F 9 8 # F d WY

4 B 6 # F 9 8 # F F d WY
 \$ " # (& \$ " # +* # * (4 B 6
 %# * 4 B 6
 F 9 8 # F d WY E b WS d _ S ` F 9 8 # F d WY
 4 B 6 F 9 8 # 4 B 6 0 4 B 6 0 4 B 6
 F d WY 4 B 6 0 4 B 6 0 4 B 6
 E b WS d _ S ` F 9 8 # 4 B 6 F d WY 4 B 6
 F 9 8 # F d WY 4 B 6 F 9 8 #
 F d WY 4 B 6
 # F

BdW[Uf[hWhS`gWaXF98 # S` V F dW UW^ Uag` f [g_ T [U^ UadV T^aaV Xad
 Tda` LZabg^_a` Sdk Vkeb^Se[S [bdWU_ [X` fe
 >:@C [Yc [YF 3 @ : g [IZ S K a ` Y XLS ` GYI W[G 3 @ 9 K [` Y
 6 Wb S d f _ W` f a XJ@V@a_` V` f a Z@a:Y` d W [\$ S Wg \ [5Z` [%\$ # " " (

ABSTRACT Objective To investigate the predictive value of transforming growth factor F 9 8
 # S` V d WY g ^ S F d WU aFg U W^ (^ g _ T [^ [GUSX U d d U a` U Z a b g ^ _ 4 B 6 d k V k e b ^ S e [S
 [` b d Wf Wd Methods 86 preterm infants with BPD who were diagnosed and treated in the hospital
 from April 2016 to August 2019 were selected and included in the study group. 82 healthy preterm infants who
 were born during the same period were selected as the control group. The TGF-1 and Treg cell count in UCB
 were compared between children with different degrees of BPD in the study group. U a _ b S d W V T W f i W W ` f Z W
 e f g V k Y d a g b S ` V f Z W U a ` f d a ^ Y d a g b z E b WS d _ S ` S ` S ^ k e [e i S e b W d X a d _ W V
 T ^ a a V # 9 F d WY U W ^ ^ U a g ` f S ` V e Results The order of TGF-1 levels in children
 with different degrees of BPD from high to low was as follows: Wh Wd W_ 4 B 6 / W d S f W [4 B 6 4 B 6
 i Z [^ W f Z W a d V W d a X F d WY U W ^ ^ U a g ` _ f [X W a _ B a V [W d S f a W W a B d i V S e S e X a ^ ^ a i e
 4 B 6 z E b WS d _ S ` S ` S ^ k e [e # Z W h W W i f S S f a z [W f [9 B W ^ k U a d d W ^ S f W V i [f Z f Z V
 4 B 6 S ` V f Z W F d WY U W ^ ^ U a g ` f i S e ` W Y S f [h W ^ k U a z C o n t r o l W V i [f Z f Z W e W h W
 Cord blood TGF-1 and the number of Treg cells can be used as predictors of BPD in premature infants. z E l e v a t
 ed TGF-1 levels and decrease in the number of Treg cells may increase the risk of BPD.
 KEY WORDS F d S ` e X a d _ [` Y W f a i g f _ Z T X S U U S D W a g V S t f ^ a a B a W f U W d ^ ^
 [` X S d a ` U Z a b g ^ _ a ` S d k V k e b ^ S e [S

\$ '
 % (# " " (
 7 _ S [g S ` \$ Y k # \$ 2 e [` S z U a _

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' i 3 # 6 Y g a z f

T d a ` U Z a b g ^ _ a ` S d k V k e b ^ S

e [4 B 6

#

4 B 6

\$ *

& " .

\$

4 B 6

4 B 6

%

4 B 6

f d S ` e X a d _ [` Y # Y d a i f Z X S U f a d

F 9 8 #

4 B 6

&

F

D W Y g ^ S f a d k W Y U W ^ ^ e

F 9 8 #

4 B 6

1

1 ž

\$ " # (& \$ " # +*

* (4 B 6

4 B 6 * # 4 B 6 (%

4 B 6 & \$ % # *

* %

,Â?y 365`h,HĐ Gg A Â7C •%•3- 2ÑP'O Ru Â7C •BE'Q #t1(ĐâS R,s! âYpØ@"^AU" @R @'E@UfÉÀ P

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' I 3 # 6 Y @ a z f

4 B 6 0 4 B 6
%

É'a•ÔvÒærv 24 ÓÔGmíÁ 9's#Lfa40DYP • L Â tlcD0Ô 5 (4 (U!aF# F\$+tb Qs9B@ ð * # \$() ý• \$ U'í# 5 ()P L Â t7cD0Ô 5 f2

3] 4 b

\$ %

3 @ a Y a 3] 4 b @ 8] (4' b

3: 5: \$ " #) & \$ " # +) # " *

3: 5: # " *

@ a Y a @ 8] (4' b @ a Y a @ 8] (4' b 3: 5:

% @ a Y a @ 8] (4' b @ a Y a @ 8] (4' b @ a Y a @ 8] (4' b

3: 5: @ a Y a

3 @ 8] (4' b @ a Y a @ 8] (4' b

3: 5: 9 A E @ a Y a @ 8] (4' b

@ a Y a @ 8] (4' b 3: 5: 3 G 5 " z * & \$

@ a Y a @ 8] (4' b 3 G 5 " z) + z)) \$) \$ z) % .

* * z " " @ a Y a @ 8] (4' b

3: 5: @ a Y a @ 8] (4' b

3] 4 b

7hS'gSf[a` hS'gWaXSj a` Ydai fZ [Z[T[fack XsUfad 3 S` V` gUWSd XsUfad] 4 b(' a` fZWUa` V[f[a` S` V bdaY` ae[e aX bSf[Wfe i [fZ SUGfWZkbWfWf[hWUdWdS^ ZW adZSYW

K:@KSj[S E: 3@9I W` 9G`A : g 9 3 A L Z` W`G@ J#g W

z = S [X W` Y 5 W` f d S ^ : a e b [f S ^ E g \$ Y X M S V Y S 5` Z f [W & 9 e [" h S V F 6 d W U S S f d _ f W` f 3 d W S _ W` f a X D W` S ^ F d S Z` W e 8 [^ e f S X [X d ` ^ [S f W V : a e b [L Z S V ^ Y a I X Z W Z S W` Y I Z a g G` [h W d e [5 Z [` & S " " % z > S T a d S f a d k a X ? W V [U S ^ 5 a ^ ^ L V Z W W Y X K Z W Z g S Z Y [I ` Z S a g G` [h W d e [f k & ' " " ' \$

ABSTRACT Objective To explore the evaluation value of axonal growth inhibitory factor. A a Y a 8 S` V` g U ^ W S d (X 8 f] (4' b) 4 f b Z W U a` V [f [a` S` V b d a Y` a e [e a X b S f [W` f e i [f Z S U d W T d S ^ Z W 3 a 5 d W S h o d W 108 cases of AHCH patients admitted to our hospital from April 2017 to < ul>2019 were selected as the research group. # " Z W S ^ f Z k b W a b ^ W i W d W d S` V a _ ^ k e W ^ W U f W V S e Y d a g b V g d [` Y f Z W e S _ W b W d [a V z F Z W (W h W b S e f a X W e W e g d ` e V [M a [X S W d W @ 8] 4 b

+ \$ # " \$ % # " # \$ &

z &) ' " " "

\$ z & ' " " ' \$

% z & ' " " ' \$

7 _ S [S # Y i # X % z U a _

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' i 3 # 6 Y a z f

[` f Z W f i a Y d a g b e S ` V f Z W d W e W U S ` V f f S `
SVBUT0qS@

. Yi T
F S T # ^ W a _ b S d [e a ` a X f i a Y d a g b e a X Y W
Yi T

F

! &'(!% ' " !* " ž &)" "ž & + %
(%ž \$ ž # & \$ ž '%ž) # # ž & &' \$ž # ' #
] Y ((ž \$ ž # # %ž ž ž 'ž # ž + "" \$ž " ' +

(\$') ž & #() (\$ ž " & ž & "*" #ž & * *
& (& \$ ž ' + & # %) ž + (

\$ ' \$ %ž # '\$ " # * ž ' \$ ž) "" \$ž & " \$
&# \$ ž + (# " + ž \$ (" ž) ' " ž % *)
\$ " # * ž ' \$ # (# & ž * # ž ' %ž & ('

275 @aYa@8](4' b 3: 5:

(*

@aYa@8](4' b
3: 5: DA 5
3 G 5 " ž * &' \$, " ž) ' + p " ž * "/'
) ž * (") \$ ž) %
* * ž " " . \$

\$ C [= > # %
@8] 4 (b' @8](4' b
@8](4' b
3: 5: DA 5
@8](4' b 3: 5:

@aYa 3 3: 5:
@aYa 3

& @aYa 3
#'

I S ` Y 8 4 (

@aYa 3
#)

276

@aYa@8](4' bDA 5

* \$

@aYa 3

@aYa@8](4' b
F ' ž " * (" ž " \$ & %

@aYa 3 3: 5:
@8](4' b

#•TR3x•D0

3: 5:3: 5:

U'

3

##

&Z #)

#) @8](4' b @8] 4

b (' F

\$ " \$ "**

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' 13#6Ygaf

f Z W ? E F a X Z g _ S ` T d S [` % % z [& a s _ \$ z Z W W W b d W e s [e a ` a X

f Z W V [X X W d W ` U W i S e e f S f [e f [U S ^ ^ k e [Y ` [X [U S ` f
f Z W U a _ T [` S f [a ` a X S ` V
i Z [U Z i S e Y d W S f W d f i Z S f Z S S k e W [è Y ^ W h f [W e k f a X
* " ž) " . S ` V S e * b ' W U [Q r i c U s [o m k a X S ` V
S ` V f Z W W j b d W e e [a ` ^ W h W ^ [e U ^ a e W ^ k d W ^ S f W V f a f Z W V W Y d W W a X _ S ^ [Y `
f [S ^ T [a _ S d] W d f a b d W V S U f b d a h [v e W [e W S ` W [e y W h [l a S e X a d U ^ [` [U S ^ f S d Y W
KEY WORDS 5 5 Z W _ a [` W ^ : [k y b S a j V [S [` V # g U [S T U ^ d W X S Z S f W d _ [Y d S f [a ` [` Z [T
[f a d k X S U S a d T d S [? W V [[S a _ S g d h [h S ^ f [_ W

: g _ S ` T d S [: ` 4 Y 9 ^ [a _ S

: 4 9 1 ž

: 4 9

F D ; L A >

D @ 3

#

D @ 3

* 5 5 U Z W _ a] # ` * 5 W ^ # * Y S ` 5 V

E g b W d e U d [b f U 6 @ S B 5 D

" > E K 4 D 9 d W W ` ? S e f W d ? [j

5 5 # *

\$

? S U d a b Z S Y W _ [Y d S f [a ` [` Z [T [

f a d k X ? S ; U 8 f a d

F

: k b a j [S [` V g U [T ^ W

X S U # a d #

: ; #

%

1

1 ž

\$ " # %) \$ " # () # \$ &

: 4 9

("

Z

((' * ' # ž " ž) #

&

(% ')

& + ž * ž % &

\$ " \$ "*" # \$ *

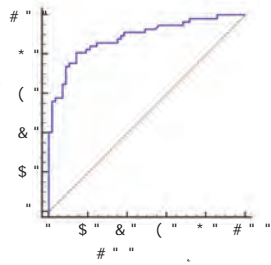
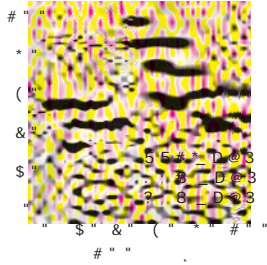
\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W S ' 1 3 6 Y a z f

' _ D@3 DA5

F S T'^ WA 5 U g d h W b d W V [U f [a ` h S ^ g W a X W S U Z _ D@3

3 G 5

5 5 # * _ D@3	" ž * " +	) ž ' %' #) ž) #	* & ž \$ #	(* ž & \$. " ž " " #
: ; 8 _ D@3	" ž) ' "	' ž & * + % ž # #	(% ž # () * ž + ' . " ž " " #	
? ; 8 _ D@3	" ž)))	(ž % # ' " ž ()	# ž + %) % ž (* . " ž " " #	
	" ž * * (	# \$ ž % ("	* " ž) " * ' ž + (. " ž " " #	



\$

? E F

8 [Y \$ d W W b d W V [U f [h W h S ^ g W a X

\$) .

: 4 9

5 5 # *

5 5 # *

F

5 5 # *

)

5 5 # *

5 5 # *

5 5 # *

5 5 # *

: 4 9

: 4 9

? ; 8

+

? ; 8 : 4 9

Fú EG¼1mT X

.'

5 D BB 5 F

; 5 G

5 5 D B B 5 F 5 B ; E
; 5 G \$ " # ((\$ " # + # " ; 5 G
\$ \$ & '))
5 D BB 5 F 5 B ; E 5 D BB 5 F 5 B ; E 5 D BB 5 F 5 B ; E
\$ ^ V 5 D BB 5 F 5 B ; E
= S b ^ S ` ? W [W d 5 D BB 5 F 5 B ; E
B W S d e a ` 5 D BB 5 F 5 B ; E D A 5
5 D BB 5 F 5 B ; E 3 G 5
3 G 5 " ž *) # 5 D BB 5 F 5 B ; E
5 D BB 5 F 5 B ; E ; 5 G 5 D BB 5 F
5 B ; E 5 D B B 5 F

B 5 F S ` V 5 B ; E e U a d W e i W d W b a e z [F Z W W A K 5 U a g d d h W e S Z a W V W V f Z S f e W
d g _ 5 D B 5 F ^ W 6 W V e 5 B ; E e U a d W e Z S V Z [Y Z W d 3 G 5 h S ^ g W e X a W e f Z W V [S Y ` a e [e a X
b W U [S ^ ^ k U a _ T [Z W U V Z S V ` f a Z e W Z [Y Z W e * f e 3 W G 5 h S B 5 G W a W 6 W V e 5 B ; E
e U a d W e a X V W S V b S f [W ` f e i W d W Z [Y Z W W V Z X X W d W e U W a i X S e g e d f h S f h [[e f Y [W S f ^ ^ W ` e f [e
z E W d g _ B 5 D B ^ W 5 W ^ E e U a d W e i W d W e [Y ` [X [U S ` f ^ k U a d d W ^ S f W V i [f Z f Z
i [f Z ; 5 G b g ^ _ a ` S d k [E X W U f [B 5 D B ^ W 6 W V e 5 B ; E e U a d W e e Z a i W V e [Y ` [X [U S ` f V
W ` U W e [` f Z W e g d h [h S ^ e f S f g e a X Z [Y Z d [e z C o n c l u s i o n h T h e g e S ^ e S ` V ^ a i d [e]
r u m C R P B 5 F ^ W 6 W V e 5 B ; E e U a d W e a X b S f [W ` f e i [f Z b g ^ _ a ` S d k [` X W U f [a ` [` ;
S ` V S d W e [Y ` [X [U S ` f ^ k d W ^ S f W V f a f Z W b d a Y ` a e [e z 5 a _ T [` W V V W f W U f [a `
S T S e [e X a d W S d ^ k f d W S f _ W ` f S ` V b d a Y ` a e f [U W h S ^ g S f [a ` z
KEY WORDS > W g] a f d [B 5 D B ^ W 6 W V e 5 B ; E e U a d W e a X b S f [W ` f e i [f Z b g ^ _ a ` S d k [` X W U f [a ` [` ;
6 [S Y ` B 5 D B ^ W 6 W V e 5 B ; E e U a d W e a X b S f [W ` f e i [f Z b g ^ _ a ` S d k [` X W U f [a ` [` ;

; ` f W ` e [h W 5 S d W G ` [f

\$

\$ p %
% 5 5 d W S U f [a `
b d a f 5 W [B ` B d a U S ^ B 5 F a ` [`

& ` 5 ^ [` [U B g ^ _ a ` S d k ; ` `
X W U f [a 5 E ; U E a d W ()
5 D B 5 F

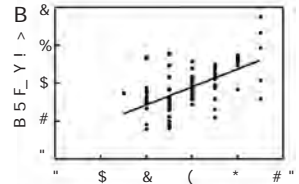
5 B ; E ; 5 G

1 E E E Bqđ±c-' } t' †HÕyR ^M°2PÅP

v # " (v(\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F \$ W \$ ' 13 # \$ Y a g z f

5 D BB 5 F5 B ; E # 272 5 D BB 5 F 5 B ; E B W S d e a ` 5 D BB 5 F 5 B ; E

Yi T F S T # ^ Wa _ b S d [e a ` a X Y W ` W d S a ^ g a b X T W f a i # W W ` f Z W



F # ! \$ '\$! " & \$! ' " ž " # '\$ + # & & ' ž \$ ž % (ž # ž) ž (ž ' " " ž ' * & \$ \$ ž \$ ž % ž % ž \$ ž & \$ " ž & & # (("] Y f _ # \$ & ž & \$ " \$ ' ž +) # ' % % ž % % * % (ž % (ž \$ " " ž * * \$ 8 [Y g 5 W d d W ^ S f [a ` T W f i W W ` e W d g _ 5 D B I B

\$ \$ (ž (# (\$ " ž) * ž ' ") ž & ' (% (ž () ' (ž & + " ž # #) ž) % % 5 D B _ Y ! > # & ž & ž \$ \$ ž & # ž) \$ & ž " . + % " " # B 5 F Y ! _ > % ž * # \$ Z ' % ž) " ž Z \$ \$ ' ž " . + # " " # 5 B ; E * ž # \$ % Z ') & ž * #) ž # # # ž \$ \$ ž " " # * " ž " " . * ' ž) # . \$

\$ 5 D BB 5 F 5 B ; E F S T \$ ^ W [S Y ` a e f [U h S ^ g W a X e W d g _ 5 D B I B 5 F ^ W h W ^ S ` V 5 B ; E e

3 G 5	5 D B " ž) + %	(ž \$ ' (O + ž \$ Y ! >	(& ž & & + " ž + # . " ž " " #
B 5 F	" ž * # )	) ž " (\$ O \$ ž \$ Y ! _ >	) ' ž ' (* & ž & \$. " ž " " #
5 B ; E	" ž * # (	) ž +) (O (ž " "	(* ž * +)) ž + \$. " ž " " #
	" ž *) #	# " ž \$ # ' ž	* " ž " " * ' ž) # . " ž " " #

274 5 B ; E \$ * V & ' ; 5 G # * F S T % ^ Wa _ b S d [e a ` a X e W d [g _ [B U B S B ^ ^ W S h f V S ^ S ` V 5 B ; e e U a d W a X b S f [W ` Y i e T i [f Z V [X X

5 D BB 5 F 5 B ; E % (\$ \$ ž \$ \$ \$) ž) * # " %) ž " ' & \$) ž) * ž " # \$ + + " # # & " ž) * & & & ž & &

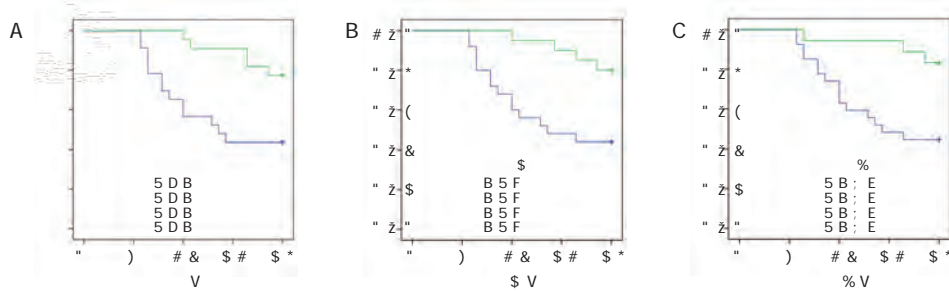
5 D BB 5 F 5 B ; E ; 5 G &) V * \$ + ž (# % \$ ((ž () ž " " ž " # & # +) " ž %) % % ž % % ž " " ž " # &

276 5 D BB 5 F 5 B ; E = S b ^ S ` ? W [W d + % % ž % # %) \$ ž \$ \$ \$ ž ' % ž " # # # * ((ž (') \$) ž) (ž ' % ž " # # 5 D B _ Y ! > \$ " ž " " # # ' (ž % ž #) \$ ž) . " " ž " " # B 5 F Y ! _ > & ž (# % ž # % ž \$ ž Z ' & ž " . * " ž " " # 5 B ; E + ž # (ž Z) & ž % ž Z % \$ ž %) * ž " " #

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' 1 3 6 9 a z f

& 5 D B B 5 F 5 B ; E
F S T & ^ W W ^ S f [a ` e Z [b T W f B i 5 W W ^ W h W W g _ 5 D B
5 B ; E e U a d W S ` V b d a Y ` a e [e ; 5 G

	E	E
5 D B	" ž * " & # & ž " . ' ž " " #	ž # % ž % # # " " #
B 5 F	" ž * # (# ' ž # . \$ % " " #	% (. +
5 D B	" ž * ') #) ž & . & # " " #	# " # #



3 5 D B 4 B 5 F 5 5 B ; E
\$ 5 D B B 5 F 5 B ; E
8 [Y \$ d 5 D B B 5 F 5 B ; E a X E g d h [h S ^ U g d h W
5 D B B 5 F ; 5 G
" ž " (* _ p ! ž > \$ B 5 F
5 D B B 5 F
5 B ; E
\$; 5 G #) 5 D B
5 D B ; 5 G B 5 F
% 5 D B B 5 F 5 B ; E
; 5 G D A 5
5 D B
B 5 F # # (5
& B 5 F ; 5 G 5 D B B 5 F
5 B ; E
' #
B 5 F % p ž B 5 F
(

\$, ^ h S d W l B S V d a S S d ? E d f 2 U Z W l ? 9 S d U ^ 2 S ?
W f S ^ ž B d W h W ` f [a ` a X H W ` f [F \$ f V a d 3 e < e ž a U [S f W V B ` W g _ # 3 / # [S ' (' (# ž
? g ^ f [_ a V S ^ 3 b b d a S U Z B a X W g Z W E b S ` L W a ž ; 5 G ž
B d a Y d 5 _ 5 d [f 5 S S " W # 2 (W # * # # * * ž < ž
% ž B 5 F e 5 I D 4 5 @ 7 G F \$ " # # + + #)) * #) * # ž
< ž \$ " # % + # ' & ') ž # \$ 9 a g ^ S @ f V c B d W l d S d 5 S W \$ S ^ ž 7 S d ^ k ; ` X ^ S _ _ S
& ž B F % B 5 F 4 [a _ S d] W d e S e B d W V [U f [h W 8 S U f a d e X a d
< ž S X f W d 5 a ^ a d W U f S 3 E d S a e U b W W U f g d h Y W W d k Z a d f E
\$ " # # + # (& + # ' & + & ž < ž E g d Y > S d W W S ` f # # + & & (& ' " ž
' ž e F D B ; 5 F 3 > 4 # % ž B 5 F D B
< ž \$ " # \$ + # # & " \$ # & " & ž
\$ " # ' \$ () & () ' " ž # & > [g > l @ S ` Y @ g S ` B W f S ^ ž 5 a _ b S d [e a ` a X b ^ S
(B S l a e B ß d l S k [a l `] W d W f ? S ^ ž 6 [e f [` U f 5 W g ^ g W b d W ^ e a X b d a U S ^ U [f a ` [` T W f i W W ` [
E a g d U W e a X : % S b a j > [W g] ` a 3 d [W W G @ W W W F a W S e W X ^ S d W [` b S f [W ` f e i [f Z S e k e f W _ [U
5 a a d V [` S f W 4 S U f W d [S ^ ; ` V g U W V @ W g f d V i S Z S ^ S F D S e W g d V S \$ # 2 / # S ^ ? [
Y d S f < [ž a < ; _ _ \$ " # # + # & # % " & # % # ' ž > [g > @ %) E 1
) ž < ž
\$ " # \$ + # (\$ & & " & & ž
* ž
< ž \$ " # % ((\$ +) # ") ž
+ ž
< ž \$ " # 8) % & % ' (% ' * ž
" ž 5 B ; E ; 5 G

; < ; >*

; > # "

\$ v

? B = 6 (; < *

; > # " ; # " 5 3 > \$ " # ((\$ " # (

* (? B = 6 %' ? B

5 3 > 5 3 > ; < ; > ; # " 5 3 >

> a Y [e f [U ? B = 6 5 3 > E b W S d _ S `

? B = 6 ; < ; > 5 3 > ; < ; >

5 3 > ; # "

? B

5 3 > (5 3 > ; < ; > 5 3 >

; # "

5 3 > > a Y [e f [U

; < ; > ? B = 6 5 3 > ; # "

E b W S d _ S ` ? B = 6 ; < ; > 5 3 > ; # "

5 3 > ; < ; > ; # "

? B = 6 5 3 > ; < ; > ; # " ? B

= 6 5 3 >

; < ; > ; # "

5addWSf[a`TVWVW eWg_`VWVeaX;> (;> * S`V;> #` S`V Uada`Sdk SdVWk

V[a`e[UZ[VdW i [fZ? kUab`Se_`Sb`Wg_`a`[SW`XWV[a`S`V=Si SeS][V[eVW

9GA J gS` E A @9 K`S3aT d Wf [3`T g V g Z S d

ž B WV [S f d [U W S V d e W d 3 X X [^ [S f W V : a e b [f S G`d g X d [` ` \ [5 S ` Y S W V [U S ^ G ` [h W d e

* % " " \$ ž B WV [S f d [U ; ` f B W V d [S f W f S Z W W C f d e f 3 X X [^ [S f W V : a e b [f S ^ a X J [` ` \ [S

G ` [h W d e g f l [` ` \ [5 S ` [Y * % " " ' &

ABSTRACT Objective To investigate the correlation between levels of serum interleukin 6 and interleukin 8 in children with MP infection and KD

Methods The clinical data of 86 children with MP infection and KD were analyzed retrospectively. The levels of interleukin 6 and interleukin 8 were measured by enzyme-linked immunosorbent assay (ELISA). The correlation between interleukin 6 and interleukin 8 was analyzed by Pearson correlation coefficient.

Results The levels of interleukin 6 and interleukin 8 were significantly higher in the KD group than in the MP group (P < 0.05). There was a positive correlation between interleukin 6 and interleukin 8 (r = 0.75, P < 0.001).

Conclusion The levels of interleukin 6 and interleukin 8 are elevated in children with KD. Interleukin 6 and interleukin 8 are positively correlated.

; * S ` V # " > Wh W ^ e S ` V a U U g d d W ` U W a X 5 3 > [` U Z [^ V d W ` i [f Z ?
= 6 Results Serum IL 6 and IL 8 levels and the incidence rate of CAL in the disease group were significantly

higher than those in the control group Z [^ # V ^ Wh W ^ e i W d W e [Y ` [X [U S ` f ^ k ^ a i W d f Z S ` f Z S f [` ž F Z W d W i S e ` a e [Y ` [X [U S Y W a / d X Y W S W [W W p X Y W [V W d W U f [a ` [` f Z W V [e ž F Z W b d a b a d f [a ` a X U Z [(k W S W e ` a a f # S a W h W W d [f Z S 3 > Y d a g b i W d W e [Y ` [X [U S ` f ^ k ^ a i W d f Z S ` i f Z [a e W [W h W Z W (S a X V e W S Y e W e a i g b [X [U S ` f ^ k Z [Y Z W d f Z S ` f Z a e W [` f Z W 4 d h S 3 S Y W a g b [e f [U d W Y d W W e g a ` S ` S ^ k e [e e Z a i ; > (S ` V * ^ Wh W ^ e i W d W Z [Y Z d [e] X S U f a d e X a d 5 3 > T g f # Z S e V S d W ` i [f Z ? B [` X W b d a f W U f [h W X Z S B b W S d _ S ` U a d d W i S W V [h Z S S ` S Z W e W (W Z e # e W d g _ ; > U Z [^ V d W ` i [f Z ? B [` X W U f [a ` S ` V = 6 i W d W e [Y ` [X [U S ` f ^ k b a e [f [h W ^ k U a d i Z [^ W # ; ^ Wh W ^ i S e e [Y ` [X [U S ` f ^ k ` W Y S f [h W ^ k U a d d W ^ S f W V i [f Z f Z W

Conclusion Serum IL 6 ; * S ` V # " > Wh W ^ e S d W U ^ a e W ^ k d W ^ S f W V f a f Z W a U U g d d W ` U W a X 5 3 [` X W U f [a ` S ` V = 6 ž ; f [e ` W U W e e S d k f a b S k _ a d W S f f W (f f a ` f a k a g ` Y U Z [^ V d

S ` V # " > Wh W Z e U Z _ S k b d a h [V W d W X W d W ` U W X a d W S d ^ k U a ` f d a ^ a X 5 3 > [` U Z [^ V KEY WORDS ? k U a b ^ S e _ S b ` W g _ a S i [S a S [] [X W U f W S e W " 5 a d a ` S d k S d f W d k ^ W e [a `

S d f W d k ^ W e [a `

= S i S e S] [= V 6 [e W S e W ? B = 6 % ' ? B & + %) ' ž ž # (ž " % ? B (ž # + 5 a d a ` S d k S d 5 3 W d k ^ W e [a # ž e " % # + # (' ž ž % 5 3 > # ž " # ? B ' ž z # ž " & # \$ = 6 (? k U a b ^ S e _ S b ? W g _ a ` [S W (= 6 5 3 > % = 6 5 3 > = 6 = 6 = 6 = 6 (; ` f W d ^ W g [[ž * ; ` f W d ^ W g] [` # " ; ` f W d # W g # [` & ' = 6 = 6

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' 13 # 6 9 a z f

\$ p '

? : |

) " # \$ %

/ # t\$ t% ! >

" " . # p % 5 3 >

" 5 3 >

? B

= 6

5 3 > ; \

F

4

; \

5 3 >

('g , 0 4 D , %

0 0 0 0 0 0

2 4 ; \ ; > * ; > # " 5 3 >

E b W S d _ S ` ? B = 6

; \ ; > * 5 3 >

; > # " 5 3 >

3

= 6

" . & p . 5 3 > = 6

* + 5 3 >

"

? B = 6 5 3 >

= 6 5 3 >

##

= 6

\$

; \ ; > *

5 3 > = 6 5 3 > F

; > # " F

; > # " = 6

5 3 > # %

? B

? B = 6

? B = 6 5 3 >

\$) ž + # . # &

= 6 5 3 >

& \$ ž * (.

? B

= 6 5 3 > = 6

5 3 > # ' .

5 3 >

B 3 B BX3d WW 5 9B > 9 8

\$ \$ \$ %

Z 5 9 B > 9 8 3 B 3 B B 3 B X d WW
(\$ " # +(\$ " (\$ " #)

B 3 B BX3d WWb 5 98 6=

ž \$ " #)#l+E# fi
\$ ž \$ ((") #
%ž \$)) # " "
\$ ((") #
7 _ \$ [Wk S g " 7 2 (ž U a _

S ` V f Z W V [X X W d W ` U W i S e e f S z f I [Z W [U S W U l g # \$ Y i X k a n [S a S g a M V
W d W V Z [Y Z W [V W] W U f [a ` d S f W a X B S W B G _ t f 8 d d Z W W W e B U d S W V Z [Y Z W d f Z S `

f Z S f a X V a g T B W B B U 3 W W Z W W S ` V f Z W V [X X W d W ` U W i S e e f S z f \$ e V [U S ^ ^ k e [Y ` [X [X
i Z W ` f Z W X S ^ e W b a e [f [S h W d S f W W i W S a W e W f a S ` e d S f W a X e W d g _ f d [b ^ W e U d W W ` [` Y
f Z S f a X e W d g _ V a g T ^ W e U d W W ` [` Y z * I ` Z V S + " V Z f V Z W W f S W U e f W l a a e d S f [W i W S d e S e W f a X e e W
d g _ f d [b ^ W e U d W W ` [` Y i S e Z [Y Z W d S Z S ` f Z W S / f [X X W d W W g U W i a S g e t e W S e f U [d e W W] U S Y ^ I
U S ` f z Conclusion The serum PAPPAX d W W 5 9 S ` V B > 9 8 a X b d W Y ` S e f e k a _ W ` i [f Z 6 a i `

V d a _ W S d W e [Y ` [X [U S ` f ^ k S T ` a d _ S ^ U a _ b S d W W i [f Z ` a d _ S ^ b d W Y ` S ` f i a _
X d W W 5 9 S ` V B > 9 8 U S ` [` U d W S e W f e Z W U d W W W W U f [Y a [` d W S d W a k b d a W Y ` S ` U k S ` V d W W
X S ^ e W b a e [f [h W d S f W z F Z W [V W ` f [X [U S f [a ` S ` V V [S Y ` a e [e a X X W f g e W e Z S e

KEY WORDS B 3 B B B d W W 5 B > 9 B a i ` e k ` V d a _ W

6 a i ` e k ` V d a _ W 1
6 a i ` 1 Z I
\$ " #) (\$ " # + (\$ " (

3 b d W Y ` S ` U k S e e a U [S f W V b ^ S e _ S
b d a f W B [3 B B 3 B # # # % # * p & '
8 d W W T W f S Z g _ S ` U Z a d W W [U Y a ` S V a f d a b Z [` Z 5 9

6 E

\$ b ^ S U W ` f S ^
Y d a i f Z B S Q J S a d

B > 9 8

& B 3 B B X d W W %
Z 5 9 B > 9 8 " p (z %

#

Y i T
F S T # ^ S V a _ b S d [e a ` a X Y W ` W S d a v g S t W f i W W ` f Z W

		] Y			
% \$ z %) z #	* (z & z) ' z % ' & z (+ # z %	\$ % z + z) z ' "	# " " z " "		
% \$ z % z) z + *	z & z % # ' ' z (# z)	\$ % z f # (z \$ "	# " " z " "		
" \$ " #	" z * " + " z # + '	" z # ') z	z		
" z * & #	" z & # + " z * & '	" z *) (z	z		

1 Z

1 Z 1 z

B Wd] [2Z

7 ^ Wd

\$) "

1Z2

B > 9 8

B 3 B B 3 Ł 8 d W W Ł B > 9 8

%

ž ' >

B 3 B B 3 Ł 8 d W W

% ' " d ! _ \$ _ [`

ž \$ "

F

%

&

\$ (

" ž '

Z

' " ">

1Z3

4

B 3 B B 8 d W W 5 9 > 9 8

_ g f [b ^ W e a X ? f a Z ? W _ W V [S `

^ [X W U k U ^ W

2Z3

\$) "

1Z4

E B E # E * ž "

' ' * '

F

Yi T

* " + " '

? A ?

? S ` `

I Z [f ` Wk

2

2Z1

? A ?

B 3 B B 3 B > 9 8 ? A ?

8 d W W 5 9 ? A ?

\$

" p # %

6 E @ F # % @ F 6 E @ F 6 E ## @ F

\$

@ F

%

) * " 6 E

6 E

B 3 B B 3

\$ *

& Z 5 9

' .

B 3 B B 3 Ł 8 d W W

(B > 9 8

B > 9 8

' p \$ (#) B > 9 8 \$ * p % " B > 9 8

6 E

* p # % B 3 B B 3 Ł 8 d W W

B > 9 8 % .

ž # " B 3 B

B 3 8 d W W 5 9 B > 9 8 6 E

\$) "

B 3 B B 3 Ł 8 d W W Ł B > 9 8

B 3 B B 3 Ł 8 d W W

' . * .

* " . + " .

B 3 B B 3 Ł 8 d W W Ł B > 9 8

6 E

B 3 B B 3

X d W W

F # ! \$ Z

; 8 @ ; # "

\$ #
F # F # ! F \$ F Z
; 8 @ # "; # " i %0 Ub 5
\$ " B 5 7 3
F# F\$ F% @ 7 7
5 a d 5 5 @ 2 U•=m#2

7 5 a d 8 @ S ` V # " W f i W W ` f Z W f # a Y d a z g @ 7 S f W
5 a d i W d W Z [# S W S f V S ` V ; 8 @ # " Y d S V g S ^ ^ k f V Z W U d W S X W W W ` U W i S e e f S f [e f [U S ^
e [Y ` [X [U S z @ 7 7 S ` V 5 a d [` f Z W e f g V k Y d a g b i W d W ^ a i W Z W Z S ` f Z a e W [` f Z
V [X X W d W ` U W i S e e f S f [e z [F U Z S W ^ W h e W ^ e ` d / X # [8 W d W Z [Y Z W d f Z S ` f Z a e W [` f Z W
U a ` f d a f X W a / g X X W d W ` U W i S e e f S f [z e f f Z [W d S W i ^ S e e [a ` e [X [U S [U S ` f V [X X W d W ` U W
F S ` V # F ! S Z W h W ^ e T W f i W W ` f Z W f i a ` B S a f g W e f f S Z W f f i a Y # a f g B e
F # ! \$ Y d S V g S ^ ^ k V W U d W S E S V ` V # F ! S [Z ` f Z W e f g V k Y d a g b i W d W Z [Y Z W d f Z S ` f Z a e
U a ` f d a f X W a / g X X W d W ` U W i S e e f S f [z e f f Z [W S U f k h e W b W d X k U S X f f Z W X [d e f e f S Y W
[` f Z W e f g V k Y d a g b i S e e Z a d f W d ` f V Z S Z W Z [S X X [W d f W Z W W a ` S f e d e a f ^ S Y d a g h U S ^ ^ k e [
z F Z W d W i S e ` a e [Y ` [X [U S ` f V [X X W d W ` U W [` 3 b Y S d z e B a W W T W f i W W ` f Z W f
[` U [V W ` U W a X b a e f b S d f g _ X W h W d S ` V b a e f b S d f g _ Z W _ a d d Z S Y W [` f Z W e f g V
Y d a g b V f Z W V [X X W d W ` U W i S e e f S f Z C o n c l u s i o n s T h e e n t i m e n t s u p p o r t
during childbirth and painless childbirth can reduce the stress response during childbirth [` f \$ [\$ Z F Z
T S ^ S [U W d a h W f Z W [_ _ g ` W e f S d a g _ e a f X W f f Z W b S d S Y d W e W W a g X W S Z a n d a U U g d d W ` U W
a X S V h W d e W d W S U f [a ` e S X f W d U Z [^ V T [d f Z z
KEY WORDS F : W ^ b W > k # U Z a : U W ^ f b W W > S E Z Z S U R S W ^ W e e f W d X W d a `

; 8 @

1z4 F# F\$ @77 5 a d
' 3 b Y S d F%
\$ & ' " _ > @77 5 a d F\$ F#
\$ & # " % 0%* F% @77 5 a d

1z5 2z3 F # ! \$ Z
E B E#E) ž " F# F # F \$ F # ! \$ Z
Yi T F\$ F% F # F \$
E > @ F # ! \$ Z F#
F F\$ F% F # F \$ F # ! \$ Z

2 F# ; 8 @ ; ># "
F\$; 8 @ ; ># " F#
2z1 F% ; 8 @ ; ># " F\$

4 ? ; F\$ F%
; 8 @ ; ># "
Yi \$ Y %
2z4 3 b Y S d

3 b Y S d
&
2z5
2z2 F# @77 5 a d
F\$ @77 5 a d

v # " *v"

\$ " \$ ** # \$ * < ? a ^ 6 [S Y ` F \$ W \$ ' 13# \$ Y @ g z f

% F # F \$ F # ! \$ Z Y i T
F S T % W a _ b S d [e a F \$ X F # ! \$ Z Y d a g Y i T

; 8 b Y ! _ >	F#	# + z z (z \$ &	# + z '\$ % & +	" z & \$ +	" z % % (
	F\$	# & z % z \$ #	# \$ z % % &	% z " " *	" z " " \$
	F%	# " z \$ \$ U (	* z \$ & # \$	% z) % +	" z " " "
		* z & # (	# \$ z \$ &		
		" z " " "	" z " " "		
; # " b Y ! _ >	F#	% + z (& \$ & &	& " z (\$ z)	" z ( + (	" z) ' (
	F\$	% # z ' (z \$ %	\$ (z ' * # \$ &	& z * \$ %	" z " " "
	F%	\$ ' z & \$ \$ U %	# * z & \$ z &	# % z (+ &	" z " " "
		(z + & \$	# " z * + (
		" z " " "	" z " " "		
F # ,	F#	+ z (% & z \$ \$	+ z % \$ z # (	" % " +	" z (\$ #
	F\$	(z) \$ ' z &	& z) # (z &	' z # + +	" z " " "
	F%	& z # (z \$ U &	% z # \$ z \$)	(z %) '	" z " " "
		# # z ' \$ &	# & z &) (
		" z " " "	" z " " "		
F \$,	F#	& z % # z) &	& z % (z z '	" z # ' %	" z ' (#
	F\$	% z # \$ z % #	\$ z * # \$ z % &	\$ z & * "	" z " ")
	F%	\$ z # & z \$ U &	\$ z # # z ' "	\$ z ' \$)	" z " " (
		' z + * &	* z & \$ +		
		" z " " "	" z " " "		
F # ! \$ Z	F#	\$ z % & z \$ (	\$ z % & z (&	" z # *)	" z ') &
	F\$	\$ z # \$ z # (	# z (' z z (\$	\$ z ' % \$	" z " " (
	F%	# z) " & z U (	# z % (z z #	\$ z) ' &	" z " " %
		(z ' # +	+ z & # (
		" z " " "	" z " " "		

S F# T F\$

& 3 b Y S d Y i T (F # ! \$ Z
F S T ^ W a _ b S d [e a ` a X T [d f Z b d a U W e e S ` V 3 b Y S d F # ! \$ Z
\$ Y d a g Y i T

3 b Y S d F # ! \$ Z F \$

* \$ z '\$) z & (z # % z) z \$ % z (+ & & (z z) &
\$ \$ (z (\$ z %) & z & z) % z (' % \$ z % z % z z * %
z & (\$ " z) # & " z % \$ + " z ') \$
" z " " " " z # % (" z " (% z % * %

@ 77 5 a d

F S T ^ W a _ b S d [e a ` a X S V h W d e W d W S U F [a ` e S X f W d V W ^ [h W d k [` #"
\$ Y d a g b e

F # F \$

F	#) \$ * z %	' * z %	F # ! \$ Z
	\$ + & * z %	# % \$ # z)	; 8 @ F # ; > # " F \$
	' z " ) (	& z # * %	### \$; 8 @
	" z " \$ &	" z " & #	

3

F Z 5 & t
F Z F # F \$

F # ! \$ Z

F # ! \$ Z

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$! # 3 b Y S d

% & ; 8 @ ; # " ' ž F < ž \$ " # %) + # ' \$ \$ * \$ # \$ * & ž (ž F < ž \$ " # +) % # * (# + " ž 3 b Y S d) E S [f @ E] S e Z [E Z [3 S W F S # ž F Z #] S ` V d W Y g ^ S f a d k F U W ^ ^ b S z d S V [< Y D W b ; b_d W Y ` S _ g ` a \$ " # (" % (" # (" # ž * ž < ž \$ " # # + # & % % * % & \$ ž + ž < ž \$ " # #) \$ * " * % ž # " ž < ž \$ " # % % \$ # &) # ' " ž # # ž F # Z \$ Z

3 I [I [3 D _ S V [6 B ` S [W f E S ^ ž 5 k U ^ a e b a d [` W 3 ; _ < ž \$ " # & " b d a h W e B d W Y ` S ` U k A g f U a _ W e [` I a _ W ` I [, f , Z , D W U g d d W ` f B d W Y ` S ` U k > a e e S ` ! 7 \$ W / S f S f a W W f W ^ ^ B Z k e [a ^ 9 a ` Y E B Z [I 4 S ` Y W f S ^ ž 3 e e a U [S # f ! [\$ a Z ` T W f i W W \$ " # \$ % & " # + " # % + " &) ž [_ _ g ` W [_ T S ^ S ` U W S ` V a T W e [f k [` i a _ W \$ 3 Z _ S V [3 T V a ^ _ a Z S _ _ S W Z S W S W f ? S E ž 7 X b a ^ k U k e f [U a h S d k k e W U V d a 7 _ S W # % U d [` a ^ X W U f a X ; ` f d S h W ` a g e # ; S _ V S F > Z a Y b ž a g ^ [` a ` F Z +) # & ž U k f W e S ` V ; _ b d a h W _ W ` f a X B d W Y ` S ` U k A g f U a _ W [` D W U g d d W ` f B d W Y ` S ` U k B > a < e e 4 [a _ W V B Z S \$! _ \$) U a f Z W d F Z ^ F B < ž + \$ # " + ' # # " \$ ž \$ " # \$ +) # \$ # (& " # (& & ž % ž # & ž F # ! \$ Z < ž \$ " # \$ + # # # " \$ ' # " \$ + ž < ž \$ " " \$ ') (" % (" ' ž & : W ` d [c g S V T 3 d k [W ^ D a V [W W f B S ^ ž @ a ` b Z \$ d S H W ^ W _ [` e 3] _ k T @ a I D a e e ` W d f B S ^ ž A j [V S f [h W U a ^ a Y [U S ^ ; ` f W d h W ` f [a ` e 6 g d] ` Y 5 Z [^ V T [d f z . X a d , B S [` , D W ^ [W X [W f S k V @ W g d a W ` V a U d [` W B E D f S d W e a e _ B \$ W V S _ W f W d e @ W i T a d ` e T k 6 [X < ž W @ W W g f ? a V W e 5 a ` f d a ^ e W V F d [S e g S d e # B & S W f \$ (& \$ ž

& ž \$ " # < ž \$ " # + (() & * ' ' " + ž ' ž < ž \$ " # %) * # # % # (ž (ž : g # ^ D Z a 3 < ž \$ " # % & # \$ # \$) & # \$ * " ž) < [` E B Z [` E Z g ` W W f S ^ ž 3 e f d a U k \$ f " W V W d [h W V 5 5 > d W [` X a d # U W W V [; S f W V Z k b a j [U d W e b a ` e W e [` Y ^ [a T ^ S e f a _ S T k e f [_ g Q e [` Y ^ [a T ^ S e f a _ S S e f a _ S \$ x d ` 0 D)

5 6 (& B 5 F Z e 5 D B

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' 13 # 6 9 a z f

' ž * ' ' .

\$'0\$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' I 3 # 6 Y 0 0 z f

F S T # ^ W a _ b S d [e a ` a X T S e W ^ [` Y M V S f S a X W S U Z Y d a g b e

C f " M " A
! F ž " Q > # " ! >

) ! & * ž # " ž % (" ž "' \$ ž ' & & (\$ # "

% # ! " &) ž # " ž " ' " ž "' & ž ' ' #) % \$ # \$ ' %

& ! " & (ž # " + ž \$ # " ž (" # ž ' *

F " ž ") " \$ ž \$ ' & + ž *) (ž

" ž + ((" ž # ") . " ž " " # " ž +) +

^s ž 8 [e Z W d

3 >
J [S ` Y`

3 >

% 5 4 &

9 8 U

&

5 4 & 5 4 &

`

5 4 &

5 4 & 3 >
(

5 4 &

5 4 &

5 4 & 0

' z % * "

U g f a X X

B 5 F

7 9 8 7 9 8

H 7 9 8 . " 7 9 8 D \$ " # &# \$ " # '# + *
 7 9 8 7 9 8 7 9 8 7 9 8
 7 9 8 7 9 8 7 9 8 7 9 8
 7 9 8 7 9 8 7 9 8 D H 7 9 8
 7 9 8 7 9 8

7j b d W e [a ` a X 7 9 8 D S ` V H 7 9 8 [S e f d a U k f W f g _ a d f [e e g W e S ` V f Z W [d U a d d W ^ S f [U a d d W ^ S f [a ` i [f Z b S f Z a ^ a Y [U S ^ Y d S W W

L: 3 @ 9 5 Z [K G 3 @ < [B S 7 @ 9 9 S J ; Y 7 K g S ` E k G < y > ; G C [K G Y 3 @ J [S > ; d g \$ a k g
 6 W b S d f _ W ` f a X @ [W S j d Y k e S g d S a W W f [d f S S ^ ^ E a g f 5 Z Z S ` [Y e g W S Z f [& \$ " " " *

ABSTRACT Objective To explore the expression of epidermal growth factor receptor 7 9 8 D S ` V
 h S e U g ^ S d W ` V a f Z W H 7 9 8 Y S e i f d a U k f W f g _ a d f [e e g W e S ` V f Z W [d U a d d W ^ S f [U a d d W ^ S f [a ` i [f Z b S f Z a ^ a Y [U S ^ Y d S W W
 Methods A total of 98 patients with astrocyte tumors who were admitted to the hospital from < anuary
 2014 to < anuary 2015 and 50 normal brain tissue specimens \$ Z W U a ` f d i a W d W d V a g d a ^ ^ W V z F Z W W j b d W e e [a ` ^ W h W ^ e a X 7 9 8 D S ` V H 7 9 8 [` U S ` U W S i V f [S e U e g W e ` a X d e S g d Y [[U e S e g W e U S [` e V [` a a d _ S ^ T f [e e g W e i W d W V W f W U f W V T k [_ _ g ` a Z [e f a U Z W _ [U S ^ e f S [` [` Y z F Z W U a d d W ^ S ` V H 7 9 8 b d a f W [` e S ` V U ^ [` [U S ^ Results At the positive expression level and S e ` S ^ k l W V z expression levels of EGFR and VEGF proteins in the astrocyte tumor tissues were significantly higher than those in the adjacent normal tissues and the normal brain tissues z F Z W d W i W d W ` a e [Y ` [X [U S ` f V [X X W d W ` U W e [` b a e [f [h W W j b d W e e [a ` d S f W e a X 7 9 8 D S ` V H 7 9 8 b d a f W [` e ` a d _ S ^ T d S [` f z e F e Z g W W j b d W e e [a ` ^ W h W ^ e a X 7 9 8 D S ` V H 7 9 8 b d a f W [` e S d W _ S ^ [Y ` f S g _ U a k d f e g _ a W Y d S V W S ` V V W Y d W W a X [` h S e [a ` z a F X S e d f W i a U k f [U f g _ a d b S S b a e [f [h W U a d d W ^ S f [a ` T W f i W W ` 7 9 8 D S ` V H 7 9 8 z Conclusion W e e [a ` [` f g _ a d f [e e g W e S ` V f Z W [d U a d d W ^ S f [U a d d W ^ S f [a ` i [f Z b S f Z a ^ a Y [U S ^ Y d S W W
 The high expression of EGFR and VEGF proteins in tumor tissues of patients with astrocyte tumor may promote the progression of the disease course z

KEY WORDS 3 e f d a U k f W f [g V a d d _ S ^ Y d a i f Z H S S U f g a S d W U W h a f a d W ^ [S ^ Y d a i f Z X S U f a d

\$ " # # ' C
 & # " " " *

7 _ S [S a k g z ^ [2 U e g z W V g z U `

⌘ " ⌘ "*" * *

3

7 9 8 D

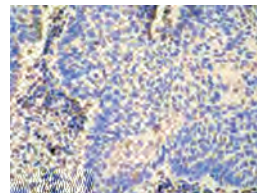
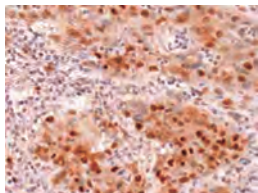
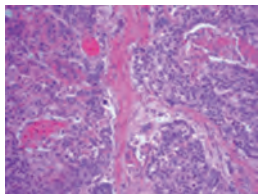
+ 7 9 8 D

H 7 9 8 9 8

"

H 7 9 8

⌘ " ⌘ "*" # \$ *



\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W S ' I 3 # 6 Y a g z f

% L S ` Y >5[g 3[4Wf S ^(! E P%3 F I ; E F [` Z [T [f [a `
d Wh Wd e We [a ` [I [` Y d S V [S f [a ` [` V g U W V 7 ? F S ` V d S V [a d We [e f S ` U W
[` We a b Z S Y W S ^ e c g < S _ A g U a U S S d e W f a _ S
) # # \$ \$ * # # \$ % * z
& F e g f e g _ S [W f [@ S] S e Z [W f S S K ^ # W j 6 b d We e [a `
S f f g _ a d [` h S e [h W X d a ` f [e S e e a U [S f W V i [f Z 7 ? F S ` V b a a d b d a Y
` a e [e [` We a b Z S Y W S ^ e e g S S _ S a g U e W d W U ^ [U S d U [` a _ S
\$ " # #) " (# # # # \$) z
' L Z S ` Y 5 z W e U A W X U a f S e Y W f z `
\$ " # #) (U z Y 4 _
' 3 ` o

g WUf # " #) # * e (

L ž ž ` < < L # " # " & #) e < <

' ! ' ! ' ' 2 #

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F \$ W \$ ' 13 # 6 Y a z f

\$ " # (% K
\$ % ' " " "

7 _ \$ [] ^ | S ` 2

\$ " \$ "

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W S ' i 3 # 6 Y a z f v # " +v)

#

F S T # ^ W a _ b S d [e a ` a X U ^ [` [U S ^ f s d W S g b W ` f W X X W U f T W f i W W ` f Z V

	# \$ \$ " ž " "	\$ + & * ž % %	#) \$ * ž % %	\$ % ž % %	' * + (ž ((
F	% ' ž " "	# & \$ % ž % %	\$ + & * ž % %	# & \$ % ž % %	& () (ž ((
	ž	ž	ž	ž	() ž \$ \$
	ž	ž	ž	ž	" ž " " "

272

F @ 8 ; ˆ

273

F @ 8 ; ˆ

\$

%

\$ F @ 8 ; ˆ

Yi T

F S T \$ ^ W a _ b S d [e a ` a X V F (W S b d W e e [a ` ^ W h W ^ e

274

T W f i W W Y d r a z W e T W X a d W S ` V i \$ X f W d f d W S f _ W ` f

F @ 8 b Y ! _ > ; ˆ b Y ! _ >

& (ž ((. \$

#

#

% ' ž " '# .

#

#

" ž % ˆ ž) & ž & \$ ž * +) ž + ˆ & \$ (# ž " ž % #
 % # ž % ž \$ ##) ž \$ ž % #) ž % ž % ž \$ ž % & *
 # ž % " " \$ # ž + & \$ " ž # % & % # ž # & "
 " ž # + (" ž " " " " ž * + % " ž " " "

F

%

Yi T

F S T % W _ b d a h W _ W ` f a X e k _ b f \$ d a g b e / S e X f W e T i d W S z f W _ W ` f

V	V	V	V
\$ ž & ' ž ž) #	& ž (# - ž ž) #	& ž % % ž & +	& ž (" ' ž ž \$ ')
(ž % - ž ž & "	) ž - \$ (ž ž ' #	(ž * \$) ž ž * ')	(ž) ") ž ž %
%) ž & ' \$	+ ž ' + *	(ž * " %	% + ž ((&
" ž " " "	" ž " " "	" ž " " "	" ž " " "

3

##

\$

\$

)

%

* +

&

"

')

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' ! 3 # 6 Y a z f

? B B 6 65 D BB 3 8

5 D B

B 3 8



? B B

6

6

6 5

5 B 3 ž U

\$ " #) " (\$ # &

&) % " ' *

7 _ \$ [\ S a ' Z Z \$ % ž U a _

Conclusions Children with MPP are in a state of hyper
coagulability and inflammatory reactionžThe detection of D DD B3 8 B S ` V b ^ S f W^ Wf b S d S _ Wf Wd e Z S e S ` W
g S f [a ` h S ^ g W X a d f Z W V [e W S e Wž

KEY WORDS E W Wd W b ` Wg k b a p S S e W S d 6 5 V [d W S d f [B W S d W f Wf S U f [h S f
[` Y X S B U f S a f d W ^ Wf b S d S _ Wf Wd

? k U a b ^ S e _ S b ` Wg _ a ` [S W
b ` Wg _ a B B S

? B B 1ž

\$? ? B % \$ _ ^

6 6 D B

#

B 3 B 3 8

? ? B

? g ^ f [e] S ` E] k

% & ? B B 6 6 V [6 W 6 5

5 d W S U f [5 D B b d a f W [`

B ^ S f W ^ Wf S U f [

h S f [` Y B X S S U f a d

1ž

6 6

E B E \$ # ž "

5 D B B 3 8 ? B B

Y i T

? B B

? B

E > @ c

? B B

F

6 6 D B 3 8

? ? B

2

1

2ž

6 6 D B 3 8

1ž

\$ " # *% \$ " # + # \$

6 6 D B 3 8

? B B # % +

& &

B > B 5 F

\$ p # % (ž \$ ž * \$ * # (6 6 D B 3 8

\$ \$ ž % ž "] Y \$ % B > B 5 F B 6 I U •

+ ' \$ p # % (ž \$ ž &

' * %) \$ \$ ž \$ (ž] Y

% " % p # #

(ž \$ ž % # * # \$

? B B

(? B ; Y ?

O# * "

? ? B

\$ " # '

\$ " # '

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F B W \$ ' i 3 6 Y a z f

\$? B B 6 6 D B Y i T
F S T \$ ^ W a _ b S d [e a 5 D B X S 6 ` V 6 b ^ S f W ^ W f b S d S _ W f W d e [` S U g f W e f S Y W a X e W h W d W ? I
Y i T

Y ! > 5 D B _ Y ! > B > F # ' ! > B 3 8 Y ! _ > B 6 I . ? B H X ^ B 5 F .
+ # * \$ \$ " z z) # z # \$ z z ' # + % % \$ z # # ' z % \$ z ' + # " z # \$ & (+ z & * z z * " z " " z z ' %
\$ \$ " # z (# z z " (z # & z z % \$) (% # z &) z # (z z * & # " z # & (z + z ") z z (" z # * z z ' (
z) " " # z " \$) * z (\$ ' # (z ' & \$ " z % # % z " z ((+ z % z ' & '
" z " " " " z % # " " z " " " " z " " " " z) ' (" z ' ") " z " " #

% ? B B 6 6 D B .

Y ! > 5 D B _ Y ! > B > F # ' ! > B 3 8 / ` Y ! B 6 f i . ? B H X ^ B 5 F .
(& # \$ \$ * + z z # & z # \$ z z ' # * (% % z) # # z \$ z # + # " z # z % z (+ z & * z z * " z # \$ z ')
)) z + z % # & z \$ z ' \$ ' (' z ' & z & ' z # & z # % # " z # z " + z) " z z # " z \$ z z ' *
(" z (+ " \$ * z # # \$ # " z &) % # \$ z % + (" z ' &) z z \$ () ' z ' & '
" z " " " " z " " " " z " " " " z " " " " z ' * ' " z " \$ & " z " " "

_ [# * '\$ b

D @ 3 # * '\$ b _ [# * '\$ b
B 5 D c B 5 D : G 5 F \$ & ' (%)
E I) * " _ [# * '\$ b 4) : A J)
_ [# * '\$ b : A J) I W e f W d ` 4 ^ a f _ [# * '\$ b
: A J) E I) * " : A J) B ' % \$? ? B \$
? F F F d S ` e i W ^ ^ b U 6 @ 3 A J) _ [D

) \$ # " \$ % # " ' * *
&) # " " "

7 _ \$) ^ ((% & + 2 c c ž U a _

e [Y ` [X [US ` f ^ k e g b b d [We h S W [U W ^ S ` W d a [^ Y d S W d [S a ` [a X T ^ S V V W d U S
U W ^ d W V g U W V f Z W % W H W ? ^ S B a d X a B W [V e f Z W V [X X W d W ` U W e i W d W e f S f [e f [US ^ ^ k e
ž ; ` S V Va [h f W d a W j b d W e e [a ` a X

[` h S e [a ` S ` C o n c l u s i o n S m i R 182ž5p inhibits cell proliferation [` h S e [a ` S ` V
_ [Y d S f [a ` a X T ^ S V V W d U S ` U W d U W ^ ^ e T k f S d Y W f [` Y S ` V d W Y g ^ S f [` Y
KEY WARDS 4 ^ V S V W d U \$ W W d B * \$: ' A J) 4

D @ 3 e [U d a 3 e [D @ 3 e ! _ [D
D @ 3 # %
D @ 3 # * \$ b _ [U d a B @ \$ b
_ [B * '\$ b
& _ [B * '\$ b

_ [B * '\$ b
4) Z a _ W a T x J W 4 W

_ [B * '\$ b
_ [B * '\$ b : A J) 4

_ [@ * \$ ' : b A J) 4

Yi T

F S T # ^ W j b d W e e [a # * e \$ b X S _ (V D) A J 4 a d _ S ^
T ^ S V V W d W b [f Z W ^ [S ^ U W ^ Y T E S ` V T ^ S V V W d U S ` U W d U W ^ ^ e
4 1 W e f W d ` T ^ a f _ [@ * \$ b E I) * "

_ [@ * \$ ' : b A J) 4 _ D @ 3 : A J) 4

: G 5 # z "" "z z# & # z "" "z z# \$ " z \$ ' z z' '
F \$ & " z & (z z' & & z # (z z%' " z)" % z' '
' (%) " z "" "z z') % z "" "z z# # " z (") z z' (
E I) * " " z & # z z' ' ' z "" "z z% + " z "" "z z' *
+ " z & " + % # ' z) ' \$ # ' # z \$ ("
" z " " " " z " " " " z " " " "

A
_ [D U a ` _ [@ * \$ ' b] 6 S ? S] W d _ [D U a ` , b B
) "
% "
+ '
) \$?? B\$
' ' (') 6 S
' % B' %
' % 6 S
& % S U f [` & \$ 6 S

\$ _ [@ * \$ ' E b) * "

Yi T

F S T \$ ^ W X X W U f e a X a h W d W j * \$ d W e e a [` a U W a X ^ _ p [D d S f X W d S S f [V a] * U H W S ^ e i [e a ` [` E I

_ [@ * \$ ' b A 6 , - _ B' % ?? B\$

_ [D U a # z "" "z z' * " z & & z' & z)" # z' # z "" "z z# #%") z# (# ' z z\$) * z \$ z' (z & ' z "" % z') " z (") z z' (
_ [@ * \$ ' % z (" # z z% (" z & \$ z' (" z "" "z z' (" z)") z z' % + z \$ z' z % # * z & z z # ' z \$ " z z' ' " z % z z')
\$ # z \$ % \$ " z * % \$ & z + + \$ ' z ' " % # (z * + \$ # \$ z # " # * z) # + + z & %)
" z " " " " z & # * " z " " " " z " " " " z " " " " z " " " " z " " " " z " " " "

A

% &

275 : A J)4 _ [# * '\$ b E I) * "

B

1 6 S ^ S) Wd - [D Ua` - [# * \$ ' b S` f i - [D Ua` S` f i # - \$ d` b
#) "
% "
+ '
) \$
..
%
: A J)4 & ' 6 S
S U f [' & 6 S

_ [D Ua` _ [# * '\$ b

& * Z) \$ E I) * "

B' % ?? B\$

\$ Z \$

_ [# * '\$ b : A J)4

_ [# * '\$ b b U 6 @ 3

_ [# * '\$ b

b U 6 @ 3 A J)4

: A J)4 B' %

? ? B\$

E I) * "

& *) \$

3 Z : A J) 4 % G F D _ [# * '\$ b

4 Z I W e f W d ` _ T # a f \$ ' : A J)4

\$ _ [# * '\$ ' b : A J)4

8 [Y g d W # * \$ ' b f S d Y W f W V S) ` V d W Y g ^ S f W V : A J 4

& ' "

b d a f W [` W j b d W e e [a `

] 6 S# \$ % & ' "

% Y i T

F S T % W g S ^ ^ g U [X W d S e W d W f a d f W d W j b W d [_ W f

#) "
% "

: A J)4 I F : A J)4 ? G F

_ [D Ua` # Z "" "Z Z# % " Z # "Z Z')

_ [# * '\$ ' b " Z "" "Z Z' (# Z "" "Z Z# %

* Z ' + # \$ Z " % \$

" Z " " " " Z " ' ' +

+

) \$

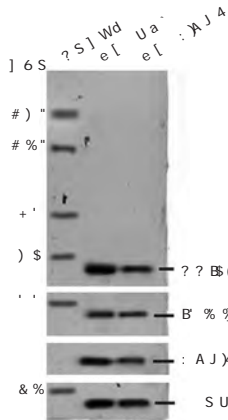
? ? B\$ (6 S

B' % % 6 S

: A J)4 & ' 6 S

S U f [6 S

& %



Z ? S] \$ W d [D % U a` # D \$ b & Z _ # D \$ b t b U 6 @ 3

' Z _ # D \$ ' b t b U 6) @ 3 : A J 4

' E I) * " : A J)4

8 [Y g d W j b d W e e [a) e b d a A J)4 W d S f [a ` S `

_ [Y d S f [a ` d W ^ S f W W ^ b d e a f W [` [` E I

3

_ [D @ 3 e

D @ 3 % G F D

% I W W d ` T ^ e f i) * " : A J)4 B' % P A R % 6 E P A ^ 36#hA266 V ^ OQ1) C U P R L r E

W B T J P ? Y P 0 ? ? B \$ [J P ! B O P

8 [Y g d W e f W d ` T ^ a f S ` S ^ k e W V W j b d W e e [a ` e a X : A J 4

b d a ^ [X W d S f [a d W ^ S f W V y b d S U f W [^ e [` E # I

A 6 + - _ U J W b R R R 4 a b R R R

36y x P A r 6 W 0 E . A @ R % 6 E P A U y % @ % V , M A i A D e

T J @ @ P A i U P 36y x P A ` y % u Q D B % # ? ? , % u Q A i e 4 d 6 E P A D P E P A T 2 @ Y ,

e [U a ` : A J 4

A 6 + - _
\$ & & ' Z *
_ [D U a ` " ž & % z " &) " \$ z ')
_ [* \$ ' b " ž % z " & &) ž ž ' '
_ [* \$ ' b ł b U 6 @ " ž z " ' ž ' " # z ' '
_ [* \$ ' b ł b U 6) @ " 3 ž & # z ' ' (" (ž ž &
ž \$ * # & & ž & ' \$
" ž \$ + * " ž " " "

5 K Q #; 9 B

(#5 K Q # # ; 9 B
\$ " # &# \$ " # ((

('
7 > ; E 3 & # \$ 5 K Q #; 9 B
5 K Q #; 9 B D A 5 5 K Q #
; 9 B 5 K Q #; "9 B (# D³ b Y ! R
& # \$ 5 K Q #) \$ z #) + z) & # % z \$ \$ z 10% Y ! ; - 9 B
\$ O b Y ! R

iq 6g X \ / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [\] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } ~ ¡ ¢ £ ¤ ¥ ¦ § ¨ © ª « ¬ ® ¯ ° ± ² ³ ´ µ ¶ · ¸ ¹ º » ¼ ½ ¾ ¿

\$ " #) * 1 % E

\$ (# " & \$

7 _ S [[g \ [` Y e g Z 2 e [` a e [Y ž U a _

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' 13 # 6 Y a z f

3 G 5 \$ \$ WW] e

S X f Wd e g d Z W f d k W b d W V [U f [h # W W X W W U f S a X Z W D W e f X a d Z W S ^ [` Y V W ^ S k a X b S f [S ^ b ^ S f W S g X d S U f # g S d f V z e i g W W] W S i X B a W 5 f e z g W W W V d S k X f Wd e g 3 0 5 W d # S i W W] e S X f Wd e g 4 W W d k 5 K W D W ^ i S e b a e [f [h W # k W h a W d S / X S W W V [T [Z ^ 0 8 S f W S g X d S U f g d W o c l u s i o n W s e k u z CYR1 and IGF 1 levels in patients with tibial plateau fractures have a high value in predicting delayed healing after surgery` V U S ` T W g e W V S e b a f W ` f [S ^ e W d g _ _ S d] Wd e z KEY WARDS 5K D # ; 9 8 F [T [S ^ X d S U f [g d W W W V \$ U f [a `

#

\$

(#

5 k e f W [(# 5 K d [# U Z % # ; ` e g ^ [` ^ [] W Y d a i f Z # S 0 # a d & 5 K D # ; 9 8 5 K D # ; 9 8

5 K D #

; 9 8

1

1 Z I

\$ " # & # \$ " # ((# # " ' ' (' \$ # p ' ' % * z \$ & # % ' % " 3 A 3 \$ " 4 \$ * 5 #) # # ' & \$ & p (" % + z * z & + \$ + \$ (3 A 3 # * 4 \$ ' 5 # \$ * &) 3 A z \$!

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' I 3 # \$ @ a z f

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$! ' 1 3 6 8 9 a z f

% 5 K Q

5 K Q #
&

5 K Q #

DA 5 5 K Q #

; 9 8 #

; 9 8

' # (
; 9 8

; 9 8

DA 5 ; 9 8

5 K Q #; 9 8

E S d] [# é e k S ; 9 8

5 K Q # 5 K Q #

; 9 8

B6* ...•Q iU 'ÛU 7!•Q #•Q•'ÛU v•Q•w U•W=m•W ÅYU EYU

#

" ; # " D ; 4 6
; 4 6 # ; 4 6
I 7 E % \$ & V
I 7 E ; # " D 3
E S ` Y Wd ; # " D 3
; # " D 3 ; 4 6
" 3

3 Use W a X [X S ` f [W] X S _ _ S f a d k T a i W W [e W S e W V [f W S f g d M S ` S / k e e

K3@9 LZ[I 3 @ 9 > [E ` G @ L [8 X 3 S @ 9 C [` Y 5 X W @ 9 4 S ` 5 : [7 @ Y 4 [c g S ` 6 W b S d f _ W ` f a X ; ` 3 W U g [[B g a b [[e U W S a v e 5 Z W X W W d W 5 Z [` \$ % " ' ' #

ABSTRACT Objective To deepen the understanding of the characteristics of infantile IBD through one case of inflammatory bowel disease 4 6 U S g e W V T k _ g f S # [d 3 e y M e t h o d s A n i n f a n t w a s d i a g n o s e d a s i n f a n t i l e I B D b a s e d o n h i s c l i n i c a l m a n i f e s t a t i o n s a n d c o l o n o s c o p y c h a r a c t e r i z e d . T h e w h o l e e x o m e s e q u e n c i n g 7 E i S e b W d X a d _ W V f a U a ` X [R e s u l t s T h e c h i l d W S V W S [V U S [k W ` U k z a ^ T W Y S ` f a Z S k W S V k [e S 8 X Z W S a T Y [d d W e Z e [h W b W d i e a [d e e f W W g [f ` W W W W ^ W e [a ` e [` f Z W a d S ^ U S h [f k 3 d 4 i b W d \$ S V S / W S W W S U a _ W a ` f a e e f U S a b ` k S e f Z a i ` W V f Z S f S U [d U g ^ S d e ^ a i g ^ U W d S X X W U f W V f Z W W ` f [d W D 3 a Y W ` W V W K W U S F W [E d Z W W W Z e W W c g W ` U [` Y h W d [X [W V f Z W Z W f W d # I ` D 3 a Y W e W g a f X S f f Z W b S d W f Z W a ; X > f Z W U Z [^ V z 3 X f W d U ^ [f W e f [` S ^ ` g f d [f [a ` S ^ e g b b a d f S ` V ^ a i V a e W W b z e a e f W W S e V a f Z W d e k _ b Y d S V g S ^ ^ k X a d _ W V S ` V f C o n c l u s i o n T h e M e z e f o z j g o u s d u W S i o n S W 1 1 O R A g e n e c a u s e i n f a n t i l e I B D .

KEY WORDS ; ` X ^ S _ _ S f a d k ; T ` a X S V ^ f v # k D S e y W W Z W ^ W W j a _ W e W c g W ` U [` Y

[` X ^ S _ _ S f a d k T a i W ^ V [e W S e W

; 4 6

g ^ U W d S f [G h 5 W U a ^ [f [e
5 d a e V [e W S e W ; 4 6 4 6
g ` U ^ S e ; e 4 X [W V ; 4 6



\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' 1 3 # 6 Y a z f

&V

' p (! ' V %) ž '% * ž "

#

% + ž %

#

&") "

Y

F%) ž ': D# (" ! _ [D%'

! _ [I`F &] Y

% (\$

I 4 5 \$ # ž > # * ! > @

" ž (> & ž \$ # 5% ž '# * ! > : 4 # # % Y : ! 5 > F
%' ž) B > F % % \$ * ! >

\$ % ž \$ > 5 D B & Y ! 7 E #

_ _ ! Z ; Y # % ž + > Y \$ ž % >

; Y ' 3 ž Y † 3 @ 5 33 @ 3 # \$

F A D 5 Ł

Ł A 4

; Y 7 %

"

" ž \$ & U _

5 F

&

%

#

" p \$! : B

5 ? H Ž

F 4 Ž

7 4 7 Ž

i Z a ^ W W j a _ W e W

c g W ` W [7 W j ú W ž

5A@+ Oiq%~%f%j~1 4_s%~%S00RDR[R8TcPÁwD[#_3% T8Y8%e% 8RÁ%ú% 6
ý 2zy~m qz...OP

01aw ju

MS~W00 0 g5_Á 0U30X* UÁ 0 0 awS'Á 0~r_ÁV5lá 0e ~7: mh~*R @~0UeWfY0 TS grSh y

UBW8 @+wÁ 0^Á ^ IDÁ 0x1 0! #L~ 3r Gr 1r

<OR;K 6kUHÁ 6 ~0700 u#u0R8u//0R0R0E2 W00_0i 1^ eEgAÁ0 07R.XÁ 0M RUA5^H 1^ 0jic 1^7~Á0 W8g;#L~ 1 IRE2 ANU_0i %' %' 8G...UÁ @
U~K! 6H0 6U_0i 1^ ~C^m 1^7 F IQ e~

SRI 1^ 1-7&ME 02-770 1^ 800 1^

(

; 4 6

H 7 A ; 4 6

) 9 ^ a U] W d

; # " D H 7 A ; 4 6

6

H 7 A ; 4 6 H 7 A ; 4 6

; # " ; >

" D # " D 3 # " D 4

: k S _ e < E z E f S ` V S d V [I W V d W U a d V [` Y a X b

; # " # c \$ % \$ &

` S f g d S ^ Z [e f a d k a X [` X X ^ d a _ s a a d W S a 1 W ^

' ; # " ;

f a B S d [e [Y \$ [# \$ \$ %) % & & z

\$ > a b W I D h e ` e 3 B b ^ W f W f S ^ z B d a e b W U f [h W ;

< 3 = E F 3 F

F @ 8

; # ; (; # \$

; # " D 3

c \$; % # % D 4 \$ # ; # " D

; # " D < 3 #

F K \$; # " D E F 3 F

B E F % 3 F B E F % 3 F

; # " > B E

F @ 8

" = a f ^ S # d I H 7 A

; 4 6 # (; # " ; # " D

% ; # " '

; # " D 3 * ; # " D 4

%

\$; 4 6

; # " ; # " D

H 7 A ; 4 6 # %

; 4 6 # (% ; # "

; # " D # " D 3 # " D 4

H 7 A ; 4 6

; 4 6

H 7 A ; 4 6

&

; 4 6

'

H 7 A ; 4 6

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F 8 W@A ' 13 6 8 9 0 f

\$

8 W@A 7 A E
\$ " # * & \$ " # ++ # # *
' ' 8 W@A 7 A E D A 5 8 W@A
7 A E 8 W@A 7 A E #
8 7 H 8 7 H 7 A E 8 7 H 8 7

ž \$ " ## \$ ' # (
\$ ž \$ % " " " "
7 _ \$ [i U ž # Z X % Z U a _
\$ % " " " "

\$ " \$ "*" # \$ *

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$! 13 6 6 6 6 f

\$ 8 W@A 7 A E "

5 B C M F P O F S B M A v f Y € F † F O ! D° "

b b T 7 A E
& * ž # '%ž # & ' ž "#ž z' %
\$ ž %ž # * # ž '+'ž z(&
\$ ' ž + # + \$ " ž \$ " "
." ž " " # ." ž " " #

Yi T
F S T # ^ W a _ b S d [e a ` a X Y W \$ W d S g W S f S T W f i W W`
Yi T

F

% * ž \$ ž 'z \$ % + ž # ž ž (ž % ž () " * ž & + +
& (% * ž + * \$ # % * ž # * ž " # "" ž + \$ "
) \$(# ž " \$ % & (# ž * \$ ž " # "" ž + \$ "
4 ? ;] Y f _ \$ \$ ž # ž z ž \$ \$ ž # ž # ž ž * ' ") ž % + %
% (% " ž ' ## (\$ + ž " ž ž " % (ž * ' "
* \$ (+ ž & + % +) " ž + # ž ž " % (ž * ' "
8 7 H) \$ ž % ž ž (* & ž # ž ž # ' ž (.) ž " " #
; Y 7 % % \$ ž + '& " ž z (& \$ ž # ') ž '\$ \$ ž) . % ž " " #
G ! _ >

\$

	b b T	7 A E.	
	\$ # ž & ž \$ &	\$ ž)" *žž* #	
	& %ž)' ž ('z +	& ž # %ž' \$	
	) # ž # %žž \$ *	(ž '#)žž &	
	\$ (& ž " # +	+ + ž \$ + +	
	. " ž " " #	. " ž " " #	
	# * ž %žž \$ (	\$ ž "" \$ ž %	
	\$ ' ž (žžž \$	\$ ž (" žžž C	')ž) \$ " # +) ž "
	') ž # # ž % &		"
	\$ ' ' ž)) (
	. " ž " " #		

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' 13 # 6 4 0 z f

\$ " #) \$ " #)# L P % " ' ' " #
B J \$ " \$ " Q " \$ (\$) % Q " " " " " #
" " " # "
7 _ S \ [^ ` # Z 9 \$ 2 e [` S ž U a _

f Z W V [e f d [T g f [a ` a X b S f Z a Y W ` [S U T S f U Z f W W b \$ \$ Z e a Z Y a W ` e [@ [Y ` e a X
T S U f W d [S Z S h W V [X X W d W ` f V W Y d W W e a X S I W e Z S h S V f U Z W f Z a [U z _ W e f ` d ^ W e g e W S ` S U W
U W b Z S ^ a ` e a h \$ U e _ k U [` d W e [e f S ` f 9 d S _ b a e [f [h W T S U f W d [S Z S h W T W W ` X a
KEY WARDS 3 U g f W U W d W T d : S a ` e [b ` [X S S d ^ U f S U a c g 6 d W W d b [` W g f _ [a a ` [S X b S f Z a Y W ` [U
T S U f W d g \$ d W e \$ ` e f [S T S U W W d [g S Y ^ e W d g e Y [e f [h [f k f W e f

: a e b [f S ^ S U c g [d W V b ` W g _ a
` [: S 3 B & * Z
: 3 B
" . \$ p" .
\$ 3 U g f W U W d W T d S ^ [` X S d U f
3 5 ;
: 3 B % 3 5 ; : 3 B

&'

3 5 ; : 3 B
3 5 ; : 3 B

1

1Z1

\$ " # *# \$ " # +\$ \$ " (
3 5 ; : 3 B # \$)
) + (& z % z ()
() \$ # % %
3 5 ; (& * Z

S %* T # }# !>
U J 5 F

1Z2

x

\$ " # * # (' \$ " # + # ")

' (% % ž + & \$ ' \$ % ž % (\$ + #) ž ' * % # \$ * ž +)

\$ # # \$ ž) % # % # ! . ž +) # * # " ž + # + # ! . " \$ # 6 " ž (# a O a a a a 2

«) " i

" " 6 6 [S B "

' + ž " + # " # \$) ž \$) * (% ž (& ' \$ # ž \$ # \$ \$ # ž \$ #

" ž (# \$ % # ž * \$ # # (' # " " ž " # ")

v # # \$ \$ \$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' 13 # 6 Y a g z f

%
F S T % W ` S ^ k e [e a X V d g Y d W e [e f S ` U W a X Y d S _ ` W Y S f [h W T S

	& \$	' # ž * '	%*	(%ž %%	\$ () (ž &)	#)	(\$ ž + (
	& "	& + ž % *	& "	((ž ()	\$) + ž & #	# (	' + ž \$ (
	%&	& # ž + *	%)	(# ž ( )	) \$ " ž ' + "	"	" ž " "
	%#	%* ž \$)	+	# ' ž " "	# \$ %' ž \$ + %	%	# # ž # #
	\$ '	% " ž * (	\$ +	& * ž %%	) \$ " ž ' + "	"	" ž " "
	#)	\$ " ž + +	%#	' # ž ()	# " \$ + ž & #	"	" ž " "
!	# '	# * ž ' \$	%)	(# ž ()	# # % \$ ž %'	'	# * ž ' \$
	+	# # ž # #	%*	(%ž %%	# " \$ + ž & #	'	# * ž ' \$
	(	) ž & #	%*	(%ž %%	# " \$ + ž & #	(	\$ \$ ž \$ \$
	%	%ž) "	%*	(%ž %%	\$ ' ž * *	'	# * ž ' \$
	%	%ž) "	%+	(' ž " "	# & & # ž # *	#)	(\$ ž + (
	\$	\$ ž & )	\$ (	& %ž %%	# \$ %' ž \$ + "	"	" ž " "
	\$	\$ ž &)	\$ %	%* ž %%	# " \$ + ž & #	"	" ž " "
!	\$	\$ ž &)	# #	# * ž %%	# (&) ž " (	\$	) ž & #

&
F S T & ^ W ` S ^ k e [e a X V d g Y d W e [e f S ` U W a X _ S [` Y d S _ b a e [f [h

	\$ &	+ (ž " "	# +	+ ' ž " "	# "	+ " ž + #
	\$ %	+ \$ ž " "	# *	+ " ž " "	# "	+ " ž + #
	# "	& " ž " "	# "	' " ž " "	'	& ' ž & '
	# "	& " ž " "	+	& ' ž " "	&	%(ž % (
	+	%(ž " "	(	% " ž " "	%	\$) ž \$)
	+	%(ž " "	)	%' ž " "	&	%(ž % (
	*	% \$ ž " "	(	% " ž " "	%	\$) ž \$)
!	)	\$ * ž " "	'	\$ ' ž " "	\$	# * ž # *
!	(	\$ & ž " "	'	\$ ' ž " "	%	\$) ž \$)
	'	\$ " ž " "	&	\$ " ž " "	\$	# * ž # *
	"	" ž " "	"	" ž " "	"	" ž " "

: 3 B

!

3 5 ;

: 3 B

: 3 B

%

!

: 3 B

b : : 3 B

' " "

&

)

3 5 ;

'

3 5 ; : 3 B

(

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' i 3 6 Y a z f

e i \$ \$ * ^ a \$ i ' e @ d W W ` [` Y a ` b ` W g _ 1 ` ` ; e U Z W _ [

E Z W ` 5 8 ` Y E : a F W T S ` z ` 5 i o [... C l a j g ` S z & 7 6 8 8 Y S A - 6 S C U a z y u m m g n e s e a s o u r e w a g e j a i k e u s a a c o y u i d m a i n S z
_ g ` [f k S U c g [d W V S V W ` a h [\$ d ' g # a b ` W g _ a ` [S V g d [` Y f Z W
_ g ` [f k a g f T d W S] [D a a y a X W d e f S [_ i S g ` W d W
e b a ` < a W ? 5 ; ` X W U f # #) # e # + (z
\$ > [5 6 g S ` > [g W f S ^ z 3 e e W e e [` Y f Z W d [e] S ` V V [e W S e W
T g d V W ` a X 5 ^ a e f d [V [g _ V [X X [U [^ W [` X W U f [a ` S _ a ` Y b S f [W ` f e i [f Z
Z a e b [f S ^ S U c g [d W V b ` W g _ a ` [S S f S G ` [h W d e [f k : a e b [f S ^ [` 5 W `
f d S ^ 5 z [; ` S X W U f # 8 a ` (\$ # (\$ * z
% < [` U a g K L Z S [W f S ^ z D W X d S U f a d k ? k U a b ^ S e _ S b ` W g
_ a ` [S W b ` W g _ a ` [S i [f Z U a ` U a _ [f S ` f S U g f W U W d W T d S ^ [` X S d U f [a `
[` S U Z [U ^ S e W d W b a d f S ` V < z [7 W W S f g d W d W h [W i
f [_ a W # + *) # % W # " % z
& z ; 5 G
< z \$ " # # + # "
\$ ' & # \$) ' (z
' z
< z \$ " # # + (
+ \$ * & \$ \$ * & & z
(
z
\$ " # + < z \$ " # % '
+ * (* *) + z
) L [I I S ` Y K S ` Y W f S ^ z 5 ^ [[U S ^ 7 X X W U f [h W ` W e e S ` V
E S X W f k A g f U a _ W e a X 7 ` V a h S e U g ^ S d F d W S f _ W ` f X a d 3 U g f W 3 ` f W d [
a d 5 [d U g ^ S f [a ` ; e U Z W _ 5 [W d W T d a] W e U 6 [e ` S
\$ " # 8) & ' (\$ & * \$ ' * z
* z
< z \$ " # % (" *
) \$ \$) \$ (z
+ : S ` F E W S ` ? 8 7 ^ g U] W 6 S ^ z ; _ b S U f a X V W ^ S k [` W S d ^ k

3 6 # E 6 8 e ; 5 3 # ?

\$ %

3 6 # # E 6 8

e ; 5 3 # ?

& \$

* (

3 6 # E 6 8 e ; 5 3 # ?

@ WWd

3 6 #

E 6 8 e ; 5 3 # ?

) % ž * # . + # ž * (, 3 G 5 " ž * * \$ 3 6 # E 6 8 e ; 5 3 # ?

" ž &) ž & + " @ WWd

ž " ž) ž " &) &)

3 6 # E 6 8 e ; 5 3 # ?

#

#

#

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W S ' i 3 # 6 Y g z f

f Z W 3 G 5 a X b a e f a b W d S f [h W [` X W U f [a ` S X f W d \ a [` f V [S Y ` a
i S e S e Z "[z Y * Z f S e W T W e f V [S Y ` a e) f % i z U * @ W V e f [Z f W e h d W k # i X S e U Z W k a B e f X ^ g
[V 3 # 6 E 6 # S ` V e ; # 5 3 S V S e [Y ` [X [U S ` f b a e [f [h W U a d " d W S f & " a " i [f Z Z W S ^ [` Y f
S ` V S ` W Y S f [h W U a d d W ^ S f [a z " i X Z @ W W d z C o n d s l o n A D 1
E 6 # S ` V e ; # 5 3 d W U ^ a e W ^ k d W ^ S f W V f a f Z W a U U g d d W ` U W a X [` X W U f [a ` S X f W d S
F Z W U a _ T [` S f [a ` a X f Z W f Z d W W [` V [U S f a d e Z S e S Z [Y Z S b b ^ [U S f [a ` h S ^ g W
S ` V [e U ^ a e W ^ k d W ^ S f W V f a f Z W Z W S ^ [` Y f [_ W a X f Z W [Z [X W U f e W V b S f [W ` f e S `

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' I 3 # 6 Y @ p z f

\$ " # ' " (\$ % 3 6 #
E 6 8 e ; 5 3 ?

3 6 # E 6 8 e ; 5 3 ?
3 6 # E 6 8 e ; 5 3 ?

% p '

+ ! P Ń U'

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' 1 3 # 6 9 a z f

25

@ WWd

ł
FF/S FS

3 6 #

% ' .

e5 3 ? #

e53 ? # _ D @ 3 e ; 5 3 # ?

(

DA 5 3 6 # E 6 #

e5 3 ? #

%

3 6 # E 6 # e ; 5 3 # ?

3 6 # E 6 # e ; 5 3 # ? @ WWd

3 6 # E 6 # e ; 5 3 # ?

#

ž

< ž

\$" # \$ * (# & (% # & () ž

\$ = [e Z [_ k 6 a S ` S : a g W f E S ^ ž E g e b W U f W V b W d [b d a e
f Z W f [U \ a [` f [` X W U f [a ` S X f W d f a f S ^] ` W W S d f Z d a b ^ S e f k g ` V W d b d a b a
X a ^ i S * ^ \$ S ^ ž E g [a ^ d

5 ; # @ ; 5 5 : D : B H

7b[VW [a`aY[US^S`S'ke[e aX UWh[US^`W[a`e S`V`W` WmWab_ Wf aX UWh[US^`
UdkafZwSbk

53A : gS` > ; G 4 [I 3 @ 9 J [S a V S `

6 Wb S d f _ W ` f a X 4 Wk [` \ S [W U Ya A a Y k W f d [U e S ` S S b k [` f V U a ? W V k U : Sa ^ e G [f S W d e [f k
4 W [\ 5 Z [Y # S " " \$ (

ABSTRACT 5 Wd h [US ^ US ` U Wd [e S U a _ _ a ` i S ↑ U Y ` e S W d f [a g e a d f Z d W S f W W ` e
i a _ W Z W S ^ f Z z F Z W [` U [V W ` U W e d S S] U W d e d z e f [S f _ Z a U e S [a X W S f [k ^ W W a b ^ W
[` U [V W ` U W [e d [e [` Y S ` V k a g ` Y W d z F Z W a U U g d d W ` U W S ` V V W h W ^ a b _ W ` f a X U
f S] W e V W U S V W e X a d _ a e f b S f [W ` f e f a U Z S ` Y W X d a # e f a i [` Y d S e V W W c g S _ a g e [`
U S d U [; 5 S S ` V _ a e f b S f [W ` f e S d W V g W f a Z [: Y Z d B U S g z g V V S T k b S b [^ ^ a _ S h [
b W d e [e f W ` f [` X W U f [[d ` U Z F Z W e W X a d W f Z W [` Y f Z W W b [V W _ [a ^ a Y [US ^ S ` S ^
U W d h [US ^ V [e W S e W e US ` b d a h [V W S T S e [e S ` V d W X W d W ` U W X a d W S d ^ k V [S Y
U d k a f Z W d S b k [e S b Z k e [US ^ f Z W d S d k S _ W f k Z a [V c f g Z a S f W p e W e S W W W X d p W W d S W f
S ` V f Z S i ^ a US ^ V [W U S a e V V e f a d e V W W a W S U Z [[W h W U ^ [` [US ^ f d W S f _ W ` f f Z d a g Y Z
F Z g e Z [e e f g V k g e W e U W d h [US ^ ^ W e [a ` e S e S e f S d f [` Y b a [` f f a S ` S ^ k l W
U W d h [US S ^ W e p a W j d ^ a d W f Z W U ^ [` [US ^ W X X W U f e a X U W d S [U S ^ U d k a f Z W d S b k
f a b d a h [V W W h [V W ` U W S ` V d W X W d W ` U W X a d U ^ [` [US ^ U W d h [US ^ ^ W e [a ` f d W S f

KEY WORDS 5 Wd h [US ^ 5 W d h U W d ^ 7 b V e V [W _ [e a ^ a Y k W ` U W U Z S d S U f W d [e f [U e
5 d k a f Z W d S b k US ^ W X X W U f e

U W d h [US 5 5 U S ` U W d #
s ' %
\$) z '
* ' z " . *) z " .

\$ " # + 8 5 K S K " # + # (# " " " \$ (7 _ S [[g " T % # # \$ # \$ (z U a _

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F Z W \$ ' I 3 # 6 Y @ p z f

? S ` f Z [% d S _ =
Z g _ S ` b S b [^ : ^ B H S h [d g e
' " ž) " ě " .
: B H : B H

p \$ &
: D : B H
: B H

1 HPV

*ò ; : B H

\$ " \$ "*" # \$ * < ? a ^ 6 [S Y ` F 2 W \$ ' 13 # 6 4 0 z f

\$ "
\$ # F 7 ^ f [f 8
F

372

\$ \$

% p y

\$ %

XW:U rWØ \$1λ

C ã É1QÇã ´1Pê Ø1TÛS *ò 7 t=•S C 'Y \ •

\$ " \$ "*"

\$

*\$ * \$ "

UÀ

\$

ËO¹ Ñ .i

KsE€ & 3 } h“ KL(Ý 6 :•5y ... U2 ‡ ç -, ç U"@ »=m"ß*ò ' í"x+± a ·
Á*U ¹,% -A/£ ! KL = ...+± @ G5ù œ 2 a · h“ h“ íO¹ “ a ·8œ“ E,, M“ ¹*L'– œ“ !
3üDô |+± '@ë U' p , g 9 # ¢ 6 3 }@÷ Ú -\ Mi, -p *L'– œ 3 ½ ' / a · < v? A(¹
Á*U+±4) 5 Ë È+± KL !

KL = ... 3 g WMi, 3ñ 3 |% U'g a · ý È @ G ó-› ¹ EL+± í"x : Í U£ .4 Õ Õ íO¹
Mi, +± fE ¹,% h“-A/£ ! OÕ Ý = ... 2 ËO¹ Ñ hOÍ(,7à BLBP=m"ß5i+Q ' /® \$ / 73 ½ Mi,
3ñ+± MK` BEPEQÛDZM4E"30"ß50±U% 550P,KY%ÁSD"ÉZDhõD 0' • %ø + 4\$MÓ?½VdD0•ÒpA%Ð"

B

S

.FEJDBM 3F

BUIPMPHZ

o 0- ø Uÿ

Òl Õ ...² Á õ ¥ > f Ó ò % y o ; ç € x c 8 æ ß ® ; Ò x Ž
p w Ó > f ë & C ß © ; x c 8 æ ú ÷ ó , ' K & C ~ © g T
Ž / 1 (' á l Õ p æ ? • - o - ; ÷ ç H Ž „ • K ? l Õ ...² Á õ ¥ æ
p ß 6 / l Õ p æ Ä Ê æ 7 0 o í 5 o ? \ g l Õ p æ 1 • ì ' K l Õ
p æ ' ù ì ï . l Õ p æ y ' ì " l Õ p æ f p © o ý É í ß 6 o H Ž
p æ l Õ ...² — l Õ õ ¥ 1 " — ë x ó © 1 w ' C ì Ú p { — • 7 µ
\$ ' ' C G g ? # Ž / l Õ p æ ' • 7 ì ' 1 w — ' Y Ž µ g i f í , '
& „ , # = Ä x ! í š „ , X — = Ä # „ ä Š ! O ± § ¾ ;
ò † H p p x Ž • © w 0 o ÿ 7 x Ž • w i R ` 1 0 o 8 í
, ' & p € ÿ ì p w Ä ÿ ì p l ÿ ì p ' ù Y ÿ ì p Ä x Á ÿ ì p o ÿ ì
p - — ÿ — p Ä • ÿ Ž • , í p & ó , ...² ì - ...² ì © » l Õ ...² ì l l
Õ ...² ì • B l Õ ...² ì l Õ V ø ...² ì ...² A h y ì ó , õ ¥ ì © » l Õ õ
¥ ì l l Õ õ ¥ Ž / í

i § l ù • Ê æ â ^ h c y B
= H Š æ l Á
% ò Ê - Š æ l Á

† = ^a § I I U W Q Z Y Z R D C Q U D O L J O F U
Ê - Š æ k , I K N E U ! W J Ø P N