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ISSN 1674-6929



分子诊断与治疗杂志

JOURNAL OF MOLECULAR DIAGNOSTICS AND THERAPY

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分子诊断与治疗杂志

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sRNA

1 2 3 4 2

sRNA small non coding RNA h ь 4 z X δ 50~500nt
RNA 6 T sRNA ь E ' 6 sRNA 3 +
3y ы 3 ы sRNA ы X 6 6 6
sRNA ы X 6 ы 6
sRNA ы X

Mechanisms of bacterial sRNA in infection and immunity

WANG Fanghong¹ ZHOU Peng² LIU Hongwei³ MA Peng⁴ YIN Weiguo²

1. Basic Medical College Dali University Dali Yunnan China 671000 2. Department of Laboratory Medicine Center for Molecular Diagnostics the Affiliated Qingyuan Hospital Guangzhou Medical University Qingyuan People s Hospital Qingyuan Guangdong China 511518 3. Department of Laboratory Medicine the Affiliated Qingyuan Hospital Guangzhou Medical University Qingyuan People s Hospital Qingyuan Guangdong China 511518 4. Graduate School of Guangzhou Medical University Guangzhou Guangdong China 510515

ABSTRACT sRNA small non coding RNA is a class of small non coding RNAs with a length of 50 500 nt which are widely found in eukaryotes and prokaryotes. With the development of research technology more sRNAs and their functions are gradually being elaborated. sRNAs are widely involved in the regulation of iron homeostasis metabolic response stress response and other pathways to regulate the immune response to bacterial infection. This review aims to provide an overview of the research progress on the mechanism of bacterial sRNAs in immunity to infection in light of recent domestic and international research hotspots.

KEY WORDS sRNA Bacterial infection Infection Immunity

δ E ' 3 8 z ε 6 T
x 3 3 8 8 O K 3 J
carbon storage regulator Csr ы ь sRNA
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T sRNA x X 6 6 δ
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L ' T i mRNA ы ы T
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sRNA 6 ' 6 6
sRNA ' ы E ы X 6
6

1 sRNA

1.1 sRNA

RNA non coding RNA ncRNA h
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IncRN ы RNA E X RNA
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E mail hyyinweiguo@hotmail.com

1.2 sRNA

[illegible]

2 RNA

RNA γ' $\sim$ f sRNA $\star$ RNA $\prime$ RNA binding
proteins RBPs u Й ё л sRNA з
sRNA Ѡ ѡ sRNA $\star$ mRNA
т ё в X $\star$ sRNA $\prime$ ä RNA γ'
ε Sm X Hfq Ffno X ProQ Ѡ Ѡ Hfq
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з X Hfq $\sim$ в İ γ з
ε X O γ в Ъ Ä X
sRNA ε $\backslash$ mRNA Й $\prime$ з
Ä sRNA т $\star$
Hfq $\prime$ в Ä X sRNA ε
 $\star$ mRNA Й $\prime$ з Ä
sRNA $\prime$ $\star$ Hfq γ O Ä
X Hfq sRNA $\star$ mRNA
Й ё т Ä $\sim$ ё γ
O Hfq $\sim$ Ѡ $\star$ sRNA γ ä ш ѡ
sRNA ä ε γ в Hfq Ä X
в з Ä Ä İ sRNA
M Nielsen JS γ Hfq $\prime$ $\sim$ Ѡ γ hL A X т
O hL A $\backslash$ mRNA u $\backslash$
M в Dong M γ O Hfq
ώ з $\backslash$ QS X т È ё в
с Hfq т $\prime$ X т
ё в з з H γ Ѡ ѡ
O в γ в

3 sRNA

sRNA mRNA $\bar{i}$ ε Φ $\bar{A}$ $\bar{A}$
 N $\bar{e}$ sRNA $\bar{u}$ mRNA $\bar{U}$
 sRNA mRNA $\bar{u}$ $\bar{M}$ $\bar{E}$ 30S $\bar{M}$ E $\bar{u}$ $\bar{M}$
 $\bar{u}$ $\bar{U}$ $\bar{A}$ $\bar{e}^h$
 $\bar{A}$ Φ sRNAs $\bar{u}$ mRNA 5'UTR
 $\bar{e}$ sRNA $\bar{u}$ mRNA3'
 mRNA $\bar{e}$ Hfq $\bar{e}$ sRNAs
 $\bar{u}$ mRNA $\bar{u}$ $\bar{u}$ $\bar{A}$ mRNA $\bar{e}$
 $\bar{e}$ sRNA $\bar{u}$ mRNA $\bar{e}$
 $\bar{u}$ $\bar{e}$ $\bar{u}^h$ $\bar{A}$ $\bar{A}$ sRNAs
 $\bar{u}$ mRNA $\bar{M}$ $\bar{u}$ RBS $\bar{u}$ $\bar{A}$ $\bar{u}$
 30S $\bar{M}$ $\bar{u}$ RBS $\bar{u}$ $\bar{A}$ $\bar{u}$ $\bar{e}$
 sRNAs $\bar{u}$ Hfq $\bar{u}$ $\bar{u}$ $\bar{u}$ mRNA $\bar{u}$
 mRNA $\bar{e}$ $\bar{u}$ RBS $\bar{L}$ $\bar{i}$
 $\bar{M}$ $\bar{u}$ $\bar{u}$ $\bar{A}$ $\bar{e}$ sRNA $\bar{u}$ mRNA $\bar{U}$
 $\bar{u}$ $\bar{e}$ RNaseE $\bar{u}$ mRNA $\bar{u}$ sRNA ^{17} ^{18} $\bar{e}$

4 sRNA

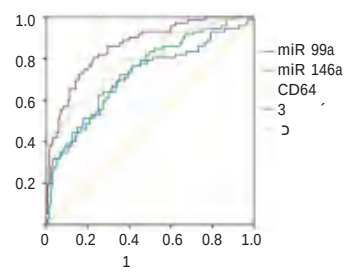
Pseudomonas aeruginosa PA X h
icX sRNA
PA
sRNA
MGA
MARS

45 7 miR 99a 3 miR 146a X
miR Dz J 9 G í 9 G iR

3

ROC

	^d	AUC ^d	95% CI	%	%	
miR 99a	≥1.35	0.716	0.638~0.793	69.44	65.93	0.354
miR 146a	≥1.40	0.734	0.662~0.805	72.22	64.44	0.367
CD64	≥3.2	0.790	0.724~0.856	75.00	68.15	0.431
3	✓	0.860	0.808~0.912	86.11	70.37	0.565



- 7 Lekka K Marangos M Roupas N et al. Evaluation of the activity of neutrophils and monocytes in diabetic patients with sepsis can surface antigens HLA DR and CD64 be useful as prognostic factors J . J Clin Med Res 2020 12 3 157 164.
- 8 Ahmed HM Ali EM Abdelrhman KS et al. Role of CD64 and myeloperoxidase as biomarkers for early diagnosis of sepsis in pediatric intensive care unit J . Egypt J Immunol 2024 31 4 1 12.
- 9 2019 18 9 900 901.
- 10 2021 56 9 951 953.
- 11 2020 49 6 113 117.
- 12 Culina S

1 PGE 2

[illegible]

toms such as pain and swelling and significantly reduces related inflammatory indicators IL 1 PGE 2 . Additionally it carries a lower risk of complications. This method is recommended for postoperative care.

KEY WORDS Mixed hemorrhoids Shuanghuang detergent Smoked sitz bath External application of medication Wound healing Interleukin 1 Prostaglandin E2

interleukin 1 IL 1
E2 prostaglandin E2 PGE 2
IL 1 PGE 2

1

1.1

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80 3 6
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41.35±11.69 1~6 3.98±1.07
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E mail MLvjun2024@163.com

traumatic osteoarthritis. The Pearson correlation coefficient was used to analyze the relationship between peripheral blood PGC1 α sICAM 1 AOFAS AH score and ankle joint activities varus activity valgus activity dorsiflexion activity plantar flexion activity in patients with ankle fractures within one year of confirmed traumatic osteoarthritis after the initial fracture. Results Among 98 patients with ankle fractures there were 25 cases 25.51% of traumatic osteoarthritis and 73 cases 74.49% without traumatic osteoarthritis within 1 year after the fracture. There were no statistical differences in general clinical data between the two groups at admission $P>0.05$. Upon admission the level of PGC1 α in the occurrence group was lower than that in the non occurrence group while the level of sICAM 1 was higher than that in the non occurrence group with statistical differences $P<0.05$. According to ROC analysis the areas under the ROC curves AUCs of PGC1 α and sICAM 1 levels were 0.769 and 0.788 and the sensitivities were 58.82% and 74.51% the specificities were 89.36% and 78.72% and the Youden indexes were 0.4819 and 0.5323 respectively $P<0.05$. Pearson correlation coefficient analysis showed that after patients with ankle fractures were diagnosed with traumatic osteoarthritis within 1 year post fracture peripheral blood PGC1 α was positively correlated with joint function and peripheral blood sICAM 1 was negatively correlated with joint function $P<0.05$. Conclusion The levels of PGC1 α and sICAM 1 in peripheral blood can be used to predict the development of traumatic osteoarthritis after an ankle fracture and are closely related to the recovery of joint function.

KEY WORDS Ankle fracture Traumatic osteoarthritis PGC1 α sICAM 1 Joint function

[illegible]

$Z^2_{a/2} P$ 1 P $/\delta^2$ $Z_{a/2}=1.96$ $\delta=0.05$ $P=0.0612$ N=88
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 1.2
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 1.2.4 $\ddot{a}$ $\mathfrak{C}$
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 $\ddot{a}$ $\mathfrak{o}$ $\mathfrak{f}$ 5 America Orthopedic
 Foot & Ankle Society AOFAS $\mathfrak{T}$ $\sim$ $\mathfrak{V}$
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 1.3 $\mathfrak{U}$
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 $\mathfrak{t}$ $\mathfrak{C}$

PGC1α siCAM 1

2

2.1

98 3 25 3 74.49%

1

2.2 N 1 PGC1α siCAM 1

2.3 1 PGC1α siCAM 1

2.4 1 PGC1α siCAM 1

3

3

99 Paget LDA, Sierevelt IN, Tol JL, et al. The completely patient
reported version of the American Orthopaedic Foot and Ankle
Society (AOFAS) score: A valid and reliable measurement for
ankle osteoarthritis. J. J. ISAKOS. 2023.

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	k	ä	J . X	o	2023 31 23	2124	
	2129.						

MMP

2.4 N
B ~ 6 T
σ P<0.05 4 6

1.4.5 T
N 6 T N
3 3 T T y 6

1.5
F SPSS 26.0 ψ ũ 6
% n í ω c²
ê 4 ũ á í ω 3 t
6 P<0.05 σ 6

2.4 N

B ~ 6 T

σ P<0.05 4 6

4 n

á	n
A	53 39 73.58 10 18.87 9
B	59 52 88.14 4 6.78
c² d	
P d	

2.5 N T

t B T T H, A

σ P<0.05 6 5 6

2

2.1 N ä
B A X 3 ~ O A
σ P<0.05 6 1 6

1

á	n _{min}	X'O mL	~ O mL	~ H _d
A	53	30.54±4.43	15.54±1.72	22.32±2.65
B	59	25.54±3.38	5.25±0.43	9.65±2.43
d	t	6.754	44.453	26.395
P d		<0.001	<0.001	0.101

2.2 N
N ~ 1 d Cor 3Ang 3ALD A B
H, A σ P<0.05 6 2 6

2.3 N MMP 9 3CRP 3TNF α 3L 6
N ~ 1 d MMP 9 H, A 3N
σ P>0.05 N CRP 3TNF α 3L 6
A B H, A σ P<0.05 6
3 6

3

CKC h ũ 3 E h T
δ 3 I T O
y T T 3 ä 6
Sturmdorf 3 3 ω 3
3 E 3 O 3 ũ H 3 X O
~ O T 3 3
6 3 U N 3 3 ũ
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3 ä 3 k 3 3
3 6 B
X O 3 ~ O ~ 6 T
T T H 3

2

2

á	n	Cor ng/L	Ang ng/mL	ALD µg/L
		3	~ 1 d	3
A	53	126.92±10.65	175.65±10.97 ^a	237.09±12.68
B	59	127.13±10.54	133.54±11.54 ^a	236.43±12.54
d	t	1.866	170.892	1.338
P d		0.065	<0.001	0.184

* 3 ^aP<0.05 6

3

MMP 9 CRP TNF α IL 6

á	n	MMP 9 ng/mL	CRP µg/L	TNF α pg/mL	IL 6 pg/mL
		3	~ 1 d	3	~ 1 d
A	53	214.09±31.59	98.97±13.65 ^a	12.67±2.51	38.92±5.62 ^a
B	59	213.54±31.43	98.54±12.43 ^a	12.54±2.43	33.43±5.21 ^a
d	t	1.927	0.174	0.278	5.364
P d		0.862	0.862	0.781	<0.001

* 3 ^aP<0.05 6

TEMP320

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The effect of TEMP320 compression cryotherapy on the swelling of lower limb fracture and its effect on coagulation function and inflammatory factors

MA Cuiyu YU Mingzhu KONG Lizhen WU Fang QUE Yunduan

Department of Trauma Orthopedics Ward 507 Gaochun People's Hospital Nanjing Jiangsu China 211300

ABSTRACT Objective To analyze the effect of TEMP320 compression cryotherapy on swelling of lower limb fracture and its influence on coagulation function and inflammatory factors. Methods A total of 120 patients with unilateral lower limb fracture admitted to the Department of Orthopaedics Gaochun District People's Hospital from June 2022 to March 2024 were selected and divided into conventional cryotherapy group 60 cases conventional cryotherapy and TEMP320 cryotherapy group 60 cases TEMP320 automatic compression cold hot compress therapy system cryotherapy by random number table method. The degree of swelling coagulation function and inflammation related indicators and safety indicators were compared between the two groups. Results After treatment the swelling degree of TEMP320 cryotherapy group was statistically significantly lower than conventional cryotherapy group $P<0.05$. After treatment the levels of neutrophil to lymphocyte ratio NLR C reactive protein CRP fibrinogen and D dimer in the two groups were decreased and the levels of NLR CRP fibrinogen and D dimer in the TEMP320 cryotherapy group were lower than those in the conventional cryotherapy group the differences were statistically significant $P<0.05$. The total incidence of adverse reactions in TEMP320 cryotherapy group was statistically significantly lower than conventional cryotherapy group $P<0.05$. Conclusion TEMP320 compression cryotherapy can effectively improve the levels of coagulation function and inflammatory factors and relieve swelling after lower limb fracture with good safety.

KEY WORDS Compression cryotherapy Lower extremity fractures and swelling Coagulation function Inflammation TEMP320 automatic cold and hot compress treatment system

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E mail Ymz15205191236@163.com

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MRI	PSA	PSAD	f/tPSA
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Diagnostic value of MRI combined with serum PSA, PSAD, and f/tPSA for early prostate cancer

CHEN Xinguo CHEN Lei XIAO Wei GAO Feng

Imaging Department Jingjiang People s Hospital Taizhou Jiangsu China 214500

ABSTRACT

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E mail 1046776523@qq.com

OSAHS 25 OH D3 8 OHdG YKL 40

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25 OH D3 38 8 OHdG 3H 3 1 YKL 40 25 D3

MCI 3 3 2023 1 2025 3 120 3 OSAHS

25 OH D3 38 OHdG 3YKL 40 Spearman 3 3

OSAHS 25 OH D3 38 OHdG 3YKL 40 3 3 MCI

3 3 MCI =37 3 =83 Spearman 3 OSAHS 3

3 MOCA 3 3 3 ROC 3 MCI 3

25 OH D3 3H 3 $\sigma P<0.05$ 8 OHdG 3YKL 40 3

$\sigma P<0.05$ 3 3 X OSAHS 25 OH D3 3

8 OHdG 3 YKL 40 3 3 $\sigma P<0.05$ 3 Spearman 3 3

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3 3 3 $P<0.05$ 3 MCI 25 OH D3 3H 3 8 OHdG 3YKL 40 3

3 $\sigma P<0.05$ 25 OH D3 3 MOCA 3 3 3 8 OHdG 3YKL 40 3

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curve analysis was performed to determine the predictive value of serum indicators for MCI. Results The serum level of 25 OH D3 in the study group was lower than that in the control group with statistical significance $P<0.05$. Additionally the serum levels of 8 OHdG and YKL 40 were higher in the study group compared to the control group also with statistical differences $P<0.05$. Furthermore when comparing patients with mild OSAHS it was found that the serum 25 OH D3 levels were significantly decreased in the former group while the levels of 8 OHdG and YKL 40 were significantly increased with statistical differences $P<0.05$. Spearman correlation analysis further confirmed that the 25 OH D3 concentration was significantly negatively correlated with the severity of OSAHS while the levels of 8 OHdG and YKL 40 were significantly positively correlated with the severity of OSAHS $P<0.05$. In the MCI group the level of serum 25 OH D3 was lower compared to the normal cognition group while the levels of 8 OHdG and YKL 40 were higher with statistical differences all $P<0.05$. Additionally the serum 25 OH D3 level showed a positive correlation with MOCA score

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9 2023 9 34' p m δ f = x ũ v Logistic e ũ N h ~

ROC v Θ e % HbA1c z

PLT z % ũ'H z APTT z z FIB z v vWF zH

'H ' TAT z α₂ ' PIC v TM σ P <

0.05 v ā ũ X X vWF ' h ≡ VCSS ũ v ā R=0.601 P<

0.001 PLT v ā R=-0.245 P=0.030 TM v ā R=0.275 P=0.015 z e ũ T

HbA1c APTT vWF ' LLVV v ā TM ' LLVV v ā ā Prob=1/

e^ Y Y=-9.831+6.327×HbA1c+1.266×APTT+1.049×vWF+0.826×TM ROC ũ z

0.960 δ 92.9% δ 92.1% δ 92.6% e APTT z vWF ' HbAc

LLVV T o z TM LLVV T ' z δ LLVV W E e

z vWF %

Diagnostic value of coagulation markers in lower extremity varicose veins

YU Haidong¹ CHEN Chu² SUO Minmin¹

1. Clinical Laboratory of Fengfeng General Hospital of North China Medical and Health Group Handan He bei China 056201 2. Department of Laboratory Medicine Shaanxi Provincial Hospital of Traditional Chi nese Medicine Xi an Shaanxi China 710000

ABSTRACT Objective To explore the relationship between coagulation markers and lower limb varicose veins and construct a disease prediction model. Methods 99 patients with lower extremity varicose veins LLVV who attended Fengfeng General Hospital of North China Medical and Health Group from Sep tember 2020 to September 2023 were included in the disease group and 34 patients with health examinations were included in the control group during the same period. The clinical data from both groups were analyzed us ing univariate analysis and multivariate logistic regression and then building a prediction model whose predic tion effect was evaluated by an ROC curve and prediction accuracy. Results The differences in HbA1c platelet count PLT activated partial prothrombin time APTT fibrinogen FIB vascular von Willebrand factor vWF thrombin antithrombin complex TAT plasmin α₂ antiplasmin complex PIC and thrombo modulin TM between the two groups were statistically significant all P<0.05 . There was a significant positive correla tion between vWF and VCSS score in the disease group R=0.601 P<0.001 PLT showed a weak negative cor relation R=-0.245 P=0.030 TM showed a weak positive correlation R=0.275 P=0.015 . The multivariate regression analysis found that HbA1c APTT vWF was positively associated with LLVV TM was negatively The prediction model based on the association index Prob=1/ e^ Y =-9.831+6.327×HbA1c+1.266×APTT+ 1.049×vWF+0.826×TM which was analysis by the ROC and the area under the curve was 0.960 the sensitivity was 92.1% and the accuracy of the model was 92.6%. Conclusion APTT vWF and HbA1c are risk factors for LLVV while TM is a protective factor for LLVV. This introduces a new idea for diagnosing LLVV.

KEY WORDS LLVV thrombo modulin vWF HbA1c Predictive Model

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~~Venous Clinical Severity Score~~ VCSS
 Body Mass Index BMI
 HTN
 Aspartate Transaminase AST
 Alanine Aminotransferase ALT
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 Total Protein TP
 Hypertension
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CRP/LMR PCT/Lac

Lac * C ų CRP / * ¯ d LMR ų z PCT / †
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 ų 6~10 ų Ъ SOFA ų 1~5 ų σ P<0.05 ē CRP/
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The correlation of serum CRP/LMR PCT/Lac with severity of sepsis and their prognostic value

YANG Bo WANG Donglei LI Lei

ICU Cardio Cerebrovascular Hospital General Hospital of Ningxia Medical University Yinchuan Ningxia China 750004

ABSTRACT Objective To explore the correlation of serum C reactive protein CRP /lymphocyte to monocyte ratio LMR procalcitonin PCT /lactate Lac with the severity of sepsis in patients. Methods A total of 196 patients with sepsis were admitted to the Intensive Care Unit of the Cardiovascular and Cerebrovascular Disease Hospital at Ningxia Medical University General Hospital from January 2021 to January 2025. These patients were selected as research subjects and were divided into the sepsis group =142 and the septic shock group =54 based on the presence of septic shock. General data of the sepsis patients were collected and the SOFA score and APACHE score were assessed within 24 h of admission and serum CRP LMR PCT and Lac levels were detected. The Pearson method was used to analyze the correlation between serum CRP/LMR PCT/Lac and the SOFA score and APACHE score. Multifactorial logistic regression was used to analyze the factors affecting the occurrence of shock in septic patients. Results The APACHE score SOFA score CRP/LMR and PCT/Lac of patients in the septic shock group were significantly higher than those in the sepsis group $P<0.05$. CRP/LMR and PCT/Lac of patients with a SOFA score of >10 was significantly higher than those with a SOFA score of 6~10 and those with a SOFA score of 6~10 was significantly higher than those with a SOFA score of 1~5 score patients the difference was statistically significant $P<0.05$. Serum CRP/LMR and PCT/Lac were positively correlated with SOFA score and APACHE score in patients with sepsis $P<0.001$. SOFA score and APACHE score CRP/LMR and PCT/Lac were all significant factors influencing the occurrence of shock in septic patients the difference was statistically significant $P<0.05$. Conclusion Serum CRP/LMR and PCT/Lac ratios correlate with the severity of sepsis and serve as independent predictors of septic shock demonstrating potential for clinical risk stratification.

KEY WORDS C reactive protein Lymphocyte to monocyte ratio Procalcitonin Lactate Sepsis

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E mail yangbo0951@126.com

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2	SOFA	CRP/LMR
	PCT/Lac	
SOFA	<i>n</i>	PCT/Lac
1~5	84	2.73±0.38
6~10	77	4.11±0.65 ^a
>10	35	5.86±1.02 ^{ab}
<i>F</i> ^d		305.896
<i>P</i> ^d		0.000

^a 1~5 ^b 6~10 ^c ^d

2.3 CRP/LMR ≥ PCT/Lac ^a SOFA ^b ^c
 APACHE ^d ^e ^f ^g ^h ⁱ ^j ^k ^l ^m ⁿ ^o ^p ^q ^r ^s ^t ^u ^v ^w ^x ^y ^z ^{aa} ^{ab} ^{ac} ^{ad} ^{ae} ^{af} ^{ag} ^{ah} ^{ai} ^{aj} ^{ak} ^{al} ^{am} ^{an} ^{ao} ^{ap} ^{aq} ^{ar} ^{as} ^{at} ^{au} ^{av} ^{aw} ^{ax} ^{ay} ^{az} ^{ba} ^{bb} ^{bc} ^{bd} ^{be} ^{bf} ^{bg} ^{bh} ^{bi} ^{bj} ^{bk} ^{bl} ^{bm} ^{bn} ^{bo} ^{bp} ^{bq} ^{br} ^{bs} ^{bt} ^{bu} ^{bv} ^{bw} ^{bx} ^{by} ^{bz} ^{ca} ^{cb} ^{cc} ^{cd} ^{ce} ^{cf} ^{cg} ^{ch} ^{ci} ^{cj} ^{ck} ^{cl} ^{cm} ^{cn} ^{co} ^{cp} ^{cq} ^{cr} ^{cs} ^{ct} ^{cu} ^{cv} ^{cw} ^{cx} ^{cy} ^{cz} ^{da} ^{db} ^{dc} ^{dd} ^{de} ^{df} ^{dg} ^{dh} ^{di} ^{dj} ^{dk} ^{dl} ^{dm} ^{dn} ^{do} ^{dp} ^{dq} ^{dr} ^{ds} ^{dt} ^{du} ^{dv} ^{dw} ^{dx} ^{dy} ^{dz} ^{ea} ^{eb} ^{ec} ^{ed} ^{ee} ^{ef} ^{eg} ^{eh} ^{ei} ^{ej} ^{ek} ^{el} ^{em} ^{en} ^{eo} ^{ep} ^{eq} ^{er} ^{es} ^{et} ^{eu} ^{ev} ^{ew} ^{ex} ^{ey} ^{ez} ^{fa} ^{fb} ^{fc} ^{fd} ^{fe} ^{ff} ^{fg} ^{fh} ^{fi} ^{fj} ^{fk} ^{fl} ^{fm} ^{fn} ^{fo} ^{fp} ^{fq} ^{fr} ^{fs} ^{ft} ^{fu} ^{fv} ^{fw} ^{fx} 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BTF3 CXCL5

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CXCL5 OSCC X 3 BTF3 ⅜ M 5
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J 81 ⅔ OSCC ħ ⅈ ü ð ⅘ a
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with positive BTF3 or CXCL5 was shorter than that of patients with negative BTF3 or CXCL5 respectively Log Rank $\chi^2=5.711$ 4.111 $P=0.017$ 0.043 . The proportions of patients with lymph node metastasis moderate to low differentiation positive BTF3 and positive CXCL5 in the poor prognosis group were higher than those in the good prognosis group and the differences were statistically significant $P<0.05$. Multivariate logistic analysis showed that lymph node metastasis $OR=3.655$ positive BTF3 $OR=4.133$ and positive CXCL5 $OR=4.491$ were risk factors affecting the prognosis of OSCC patients $P<0.05$. The goodness of fit test for the prognosis model of OSCC patients was better H Lo h e d $P=0.711$ s Conclusion BTF3 and CXCL5 are both positively expressed in OSCC cancer tissues and their levels are closely associated with disease progression and a poor prognosis.

KEY WORDS Oral squamous cell carcinoma Basic transcription factor 3 C X C motif chemokine ligand 5

Oral squamous cell carcinoma OSCC is a common malignant tumor of the head and neck. CXCL5 is a chemokine that plays a role in inflammation and tumor progression. BTF3 is a transcription factor that is involved in the regulation of gene expression. The expression of BTF3 and CXCL5 in OSCC tissues has been studied, and it has been found that both are positively expressed in OSCC cancer tissues. The levels of BTF3 and CXCL5 are closely associated with disease progression and a poor prognosis. The purpose of this study was to investigate the expression of BTF3 and CXCL5 in OSCC tissues and their association with clinical parameters and prognosis. The study included 100 patients with OSCC who were treated with surgery. The expression of BTF3 and CXCL5 was detected by immunohistochemistry (IHC). The results showed that BTF3 and CXCL5 were both positively expressed in OSCC tissues. The expression of BTF3 was significantly higher in the poor prognosis group than in the good prognosis group. The expression of CXCL5 was also significantly higher in the poor prognosis group than in the good prognosis group. The multivariate logistic analysis showed that lymph node metastasis, positive BTF3, and positive CXCL5 were risk factors affecting the prognosis of OSCC patients. The goodness of fit test for the prognosis model of OSCC patients was better. Conclusion BTF3 and CXCL5 are both positively expressed in OSCC cancer tissues and their levels are closely associated with disease progression and a poor prognosis.

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2021 2 2024 2 15 100 OSCC patients were included in the study. The expression of BTF3 and CXCL5 was detected by IHC. The results showed that BTF3 and CXCL5 were both positively expressed in OSCC tissues. The expression of BTF3 was significantly higher in the poor prognosis group than in the good prognosis group. The expression of CXCL5 was also significantly higher in the poor prognosis group than in the good prognosis group. The multivariate logistic analysis showed that lymph node metastasis, positive BTF3, and positive CXCL5 were risk factors affecting the prognosis of OSCC patients. The goodness of fit test for the prognosis model of OSCC patients was better. Conclusion BTF3 and CXCL5 are both positively expressed in OSCC cancer tissues and their levels are closely associated with disease progression and a poor prognosis.

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1.2.1 BTF3

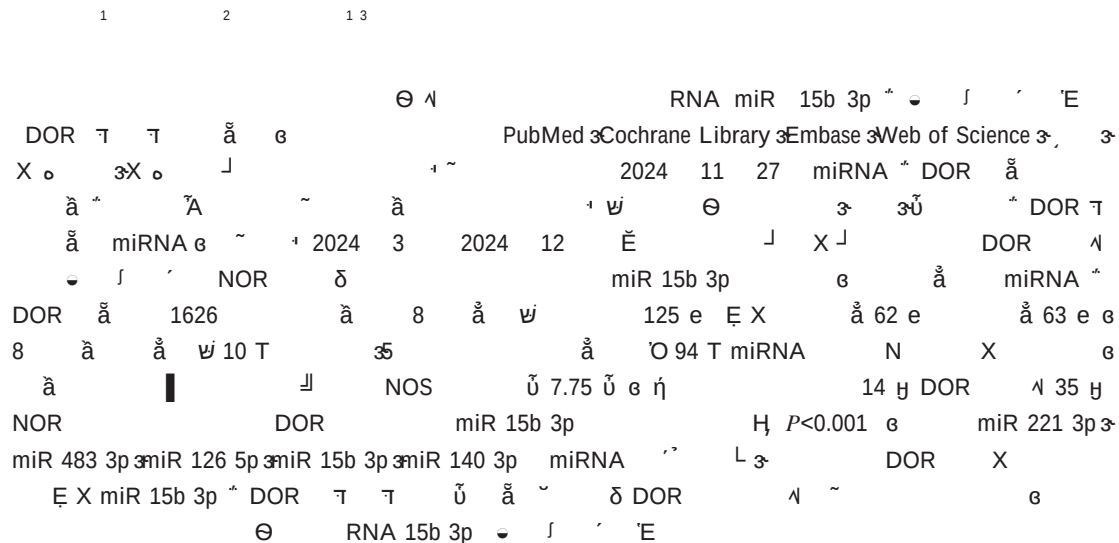
BTF3 is a transcription factor that is involved in the regulation of gene expression. The expression of BTF3 in OSCC tissues has been studied, and it has been found that BTF3 is positively expressed in OSCC cancer tissues. The levels of BTF3 are closely associated with disease progression and a poor prognosis. The purpose of this study was to investigate the expression of BTF3 in OSCC tissues and its association with clinical parameters and prognosis. The study included 100 patients with OSCC who were treated with surgery. The expression of BTF3 was detected by IHC. The results showed that BTF3 was positively expressed in OSCC tissues. The expression of BTF3 was significantly higher in the poor prognosis group than in the good prognosis group. The multivariate logistic analysis showed that lymph node metastasis, positive BTF3, and positive CXCL5 were risk factors affecting the prognosis of OSCC patients. The goodness of fit test for the prognosis model of OSCC patients was better. Conclusion BTF3 is positively expressed in OSCC cancer tissues and its levels are closely associated with disease progression and a poor prognosis.

D		BTF3			
		=58	n	=23	n
q		31	73.81	11	26.19
		27	69.23	12	30.77
	≤50	24	64.86	13	35.14
	>50	34	77.27	10	22.73
M	kg/m²	43	76.79	13	23.21
	≥24	15	60.00	10	40.00
γ		25	75.76	8	24.24
	~	33	66.75	15	31.25
	~	29	78.38	8	21.62
z, T, H		29	65.91	15	34.09
		24	70.59	10	29.41
		19	70.37	8	29.63
♣		15	75.00	5	25.00
		31	79.49	8	20.51
	~	27	64.29		
~		20	71.43		
		37	80.81		
		42	78.57		
~		14	56.00		
	Ў 78	43	79.00		
	Ў 78	12	55.56		
TNM Ў	~	43	26.42		
	~	15	62.00		

3BTF3 3CXCL5 i OSCC ~
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 7 M 4 x kB . u 6/D ~
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 c BTF3 3CXCL5 OSCC X V
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miR 15b 3p



A systematic review of the association between miR 15b 3p and diminished ovarian reserve

WANG Yingju¹ PI Fangcao² WU Suzhen^{1,3}

1. Foshan Clinical Medical School of Guangzhou University of Chinese Medicine Foshan Guangdong China 528000 2. International Institute for Translational Chinese Medicine Guangzhou University of Chinese Medicine Guangzhou Guangdong China 510006 3. Foshan Fosun Chancheng Hospital Foshan Guangdong China 528000

ABSTRACT **Objective** To explore the relationship between microRNA miR 15b 3p and the occurrence and development of diminished ovarian reserve DOR through systematic review and experimental validation. **Methods** Computerized searches were conducted on PubMed Cochrane Library Embase Web of Science Wanfang CNKI and Chinese Biomedical Literature Database CBM to retrieve literature on miRNAs and DOR from database inception until November 27 2024. Following screening based on inclusion and exclusion criteria data extraction and quality assessment were performed on the included studies. Relevant miRNAs associated with DOR were identified through summarization screening and analysis. In addition DOR patients and patients with normal ovarian reserve NOR who attended the Department of Traditional Chinese Medicine Gynecology at Foshan Fosun Chancheng Hospital between March 2024 and December 2024 were selected as the study subjects and plasma miR 15b 3p expression levels were measured in both groups. **Results** A total of 1626 articles related to miRNAs and DOR were retrieved and 8 articles were finally included involving 125 subjects 62 in the experimental group and 63 in the control group. These 8 articles included 10 independent studies and 5 sample types. 94 miRNAs were differentially expressed in at least 2 experiments. The average Newcastle Ottawa Scale NOS quality score of the included studies was 7.75. Clinical validation revealed that plasma miR 15b 3p levels were significantly lower in DOR patients =14 compared with NOR participants =35 $nP<0.001$. **Conclusion** MiRNAs such as miR 221 3p miR 483 3p miR 126 5p miR 15b 3p and miR 140 3p are differentially expressed in DOR patients across different regions and sample

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sources. Among them miR 15b 3p is closely related to the occurrence and development of DOR and may serve as a potential biomarker and therapeutic target for early diagnosis and treatment.

KEY WORDS Systematic review MicroRNA 15b 3p Diminished ovarian reserve Therapeutic target

diminished ovarian reserve DOR
 10%~35%² DOR
 AMH FSH AFC
 microRNA miRNA
 19~25 T RNA⁵
 RNA message RNA mRNA
 DOR normal ovarian
 reserve NOR
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ǝ miR 126 5p miR 144 3p ǝ
miR 150 5p ǝ miR 509 3p ǝ miR 103a 3p ǝ miR 378a 3p ǝ
miR 140 3p miR 15b 3p miR 126 3p miR 483 3p miR 221 3p
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APPB

1

L	2023		=258 n	2024		=248 n
	1	3		1	3	
L	69		26.74	64		25.81
L	38		14.73	47		18.95
K	37		14.34	33		13.31
K	11		4.27	9		3.63
K	13		5.04	15		6.05
K	62		24.03	48		19.35
	28		10.85	32		12.90
χ^2 d			3.565			
P d			0.735			

2

2023-2024

Ü	2023		=258 n	2024		=248 n
	1	3		1	3	
	153		59.30	152		61.29
	105		40.70	96		38.71
χ^2 d			0.209			
P d			0.648			

Ü	2023		=258 n
	1	3	
0~5	79		
6~10	137		
11~15	8		
16~20	3		
21~30	6		
31~40			
41~50			
51~60			
>60			
χ^2 d			
P d			

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2023-2024					
T	2023		2024		
	n	%	n	%	
V	61	23.64	68	27.42	
V	30	11.62	26	10.48	
	130	50.38	120	48.39	
ωΓ	3	1.16	4	1.61	
J e v	1	0.39	1	0.40	
	2	0.78	0	0.00	
Ö	21	8.13	19	7.66	
v	2	0.81	0	0.00	
e v	3	1.16	3	1.22	
ψ Γ	4	1.54	7	2.82	
'	1	0.39	0	0.00	
c ² d		6.932			
P ^d		0.732			

3

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ή	T M %	W	A	ø	2023	9	2024	9	ль П İ
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C P2C19*3з	P2C19*17з	P2C9*28з	P2C9*3	VVKORCI 1639G>A	и	ũ	E x	л ŷ	
ũ	ø	468 з	X C P2C9*3 и	' Y Hardy Weinberg			P<0.05	E AE 5 T и	
'	ø	O C P2C9*2	и x	CYP2C19*2з	C P2C19*3з	C P2C19*17з	C P2C9*3Y	л	Y
VKORCI 1639G>A	ũ ð δ 27.9%	æ.6%	æ.5%	æ.1% л	91.3% ø	.	a	C P2C19	x
ω X ŷ	■	ŷ	υ ø J	a	C P2C9 л VKORCI	xY	ũ ð ω		
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σ	P>								

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E mail wxk111506@sohu.com

1					n					C ² d	P d
d					d						
x y		WW	WM	MM	WW		WM	MM			
CYP2C19*2		246 52.6	183 39.1	39 8.3	243 52.0	188 40.2	36 7.8				
CYP2C19*3		418 89.3	48 10.2	2 0.4	417 89.2	49 10.5	1 0.3				
CYP2C19*17		445 95.1	23 4.9	0 0.0	445 95.3	22 4.7	0 0.0				
CYP2C9*2		468 100.0	0 0.0	0 0.0	468 100.0	0 0.0	0 0.0				
CYP2C9*3		425 90.8	38 8.1	5 1.1	421 90.0	46 9.7	1 0.3				
VKORC1 1639G>A		3 0.6	75 16.0	390 83.3	4 0.9	74 15.8	391 83.4				
WW	wild type	WM	heterozygous	MM	homozygous						

4		<i>n</i>		
	ᄅ ᄇ	ᄅ ᄇ̃	ᄇ̃	
.	<i>C P2C19*2</i>	17/*17Y	0 0.0	ᄇ̃
	<i>C P2C19*3</i>	*1/*17Y	19 4.1	ᄇ̃
	<i>C P2C19*17</i>	*1/*1Y	190 40.6	ᄇ̃
		*1/*2	166 35.5	
		*1/*3	35 7.5	
		*2/*17	4 0.9	× ᄇ̃
		*3/*17	0 0.0	
		*2/*2	39 8.3	
		*2/*3	13 2.8	ᄇ̃
	*3/*3	2 0.4		
ᄇ̃	<i>C P2C9*2</i>	*1/*1 Y	425 90.8	ᄇ̃
	<i>C P2C9*3</i>	*1/*2 Y	0 0.0	× ᄇ̃
		*1/*3	38 8.1	
		*2/*2	0 0.0	
		*2/*3	0 0.0	ᄇ̃
		*3/*3	5 1.1	
	<i>VKORC1 1639G>A</i>	GG	3 0.6	
		GA	75 16.0	
		AA	390 83.3	

0.55%² ǂ ʼ C P2C9 ǃ *1/*1
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X T C P2C9 *2 H ǂ C P2C9
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3 8.1% ʼ C P2C9 ǂ ǂ h Y² ǂ ǃ
*3/*3 ǃ ǂ 1.1% ǂ ǂ ǂ X ǂ e
ǂ 0.0%~0.55%^{2 10} ǂ VKORC1 ǂ L 1639G>A ǂ
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ǂ H H ǂ ǂ ǂ X
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99.3% ʼ Sun¹¹ h e ǂ X
T M ǂ H ǂ ǂ ǂ ǂ C P2C9*2*3
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 3 J . 3 J 2024 24 19 3765 3768

WBC NPR PLR

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[illegible]

curve AUC values of WBC NPR PLR and combined detection for predicting prognosis were 0.805 0.802 0.831 and 0.908 respectively $P<0.05$. Logistic regression analysis showed that peripheral blood WBC $\geq 13.08 \times 10^9/L$ NPR ≥ 3.2 and PLR ≥ 175.60 were risk factors for prognosis in adult patients with community acquired pneumonia $P<0.05$. Conclusion The levels of peripheral blood WBC NPR and PLR increase with disease severity in adult patients with pneumonia. These can all be applied as auxiliary detection indicators to clinically evaluate prognosis.

KEY WORDS Community acquired pneumonia WBC NPR PLR

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2.5 1 WBC $\geq 13.08 \times 10^9/L$ $\geq 13.08 \times 10^9/L=1$ NPR $< 0.32=0$ $\geq 0.32=1$ PLR $< 175.60=0$ $\geq 175.60=1$ Logistic χ^2

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 7 6 O ' H 7 σ P<0.05 N VAS ū 7 HSS ū
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E mail yuguosheng197443@sina.com

the two groups at different time points were statistically different in terms of between group analysis $P<0.05$. Compared to control group the HSS scores in the combined group were higher at 3 7 and 10 days after surgery with statistical differences $P<0.05$ while the VAS scores were lower at 3 7 and 10 days after surgery with statistical differences $P<0.05$. The level of serum MMP 9 in the two groups was lower at 3 days after surgery than before surgery and the level in the combined group was lower than in the control group with statistical significance $P<0.05$. The levels of serum NPY and NE in the control group 3 days after surgery were higher than before surgery with statistical differences $P<0.05$. However there were no statistical differences in the levels of serum NPY and NE in the combined group at 3 days after surgery compared to before surgery $P>0.05$. Serum NPY and NE levels in the combined group were lower compared to those in the control group with statistical differences $P<0.05$. Conclusion Xiaozhong Jianbu decoction combined with Bing mang powder for external application is an effective treatment for swelling and pain after TKA. This combination can effectively reduce swelling in the affected limb and lower the body's stress levels.

KEY WORDS Xiaozhong Jianbu decoction External application of Bingmang powder TKA

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total knee arthroplasty TKA

2.2 N ~
N ' VAS ũ
σ P<0.05 ~ 3 d 37 d ±10 d VAS ũ
H/Lb ð σ P<0.05 ~ 3 d
VAS ũ ð P>0.05 ~ 7 d ±10 d VAS
ũ H/Lb ð P<0.05 ~ 3 d 37 d ±10 d VAS
ũ H/Lb σ P<0.05 e 3 e

2.3 N
N ~ 3 d MMP 9 H₂O₂ O₂ H₂O₂
σ P<0.05 ~ 3 d
NPY 3 NE H₂O₂ P<0.05 ~ 3 d NPY 3
NE * H₂O₂ P>0.05 O₂ O₂ c
H₂O₂ σ P<0.05 e 4 e

		4		7		14	
ğ	n	NPY pg/mL		NE ng/mL		MMP 9 ng/mL	
		ğ	~ 3 d	ğ	~ 3 d	ğ	~ 3 d
c	50	182.93±19.06	186.04±18.75	210.03±22.02	218.93±24.27	228.49±27.71	132.24±16.82 ^a
	50	179.91±18.67	200.38±24.10 ^a	208.91±20.14	229.52±25.49 ^a	225.16±29.06	141.28±19.91 ^a
d	t	0.800	3.321	0.265	2.128	0.586	2.453
P d		0.425	0.001	0.791	0.036	0.559	0.016
^a	ğ	^a P<0.05 g					

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SCr IL 6

Ў 6 2019 10 2024 8 100 3 6 IL 6 50 3 50 3 6 N 24 h 3 SCr 4 C Cys C 3 90.00% 74.00% $\sigma P<0.05$ 3 24 h 3 SCr 3 Cys C 3 L 1 3 TNF α 8

1		<i>n</i>	
α	<i>n</i>		
	50	30 60.00	15 29.00
	50	23 48.00	14 28.00
C^2 ^d			4.336
<i>P</i> ^d			0.037

2		♣ mmHg		♣ mmHg	
α	<i>n</i>	$\tilde{\omega}$	$\sim$	$\tilde{\omega}$	$\sim$
	50	156.29±10.35	126.77±8.26 ^a	92.86±6.75	76.32±5.82 ^a
	50	157.75±10.81	132.53±9.43 ^a	92.17±7.23	80.58±6.37 ^a
^d	<i>r</i> ^d	0.690	3.249	0.493	3.491
<i>P</i> ^d		0.493	0.002	0.623	0.001

3							
Қ	n	24 h mg		SCr μmol/L		Cys C mg/L	
		Қ	~	Қ	~	Қ	~
d	50	512.35±67.23	142.39±35.28 ^a	131.28±20.54	113.35±16.72 ^a	1.36±0.25	0.65±0.15 ^a
	50	515.78±71.68	213.65±39.75 ^a	129.74±19.83	121.36±18.59 ^a	1.33±0.23	0.87±0.18 ^a
	t	0.247	9.481	0.381	2.265	0.624	6.639
	P d	0.806	<0.001	0.704	0.026	0.534	<0.001
Қ~		^a P<0.05 в					

2.4 N
~
IL 6αL 1β α TNF α HЛ
σ P<0.05 в 4 в

2.5 N
Қ
N
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σ P>
0.05 в 5 в

4							
Қ	n	IL 6 pg/mL		IL 1β pg/mL		TNF α pg/mL	
		Қ	~	Қ	~	Қ	~
d	50	25.68±5.32	18.61±4.28 ^a	18.35±3.62	13.21±2.84 ^a	30.52±6.62	23.57±4.63 ^a
	50	26.14±5.76	21.34±4.95 ^a	19.07±3.87	16.59±3.13 ^a	29.97±6.37	27.61±5.24 ^a
	t	0.415	2.950	0.961	5.655	0.423	4.085
	P d	0.679	0.004	0.339	<0.001	0.673	<0.001
Қ~		^a P<0.05 в					

5						
Қ	n	Қ	H ♣	τ		
C ² d	50	3 6.00	1 2.00	3 6.00	7 14.00	
	50	1 2.00	2 4.00	2 4.00	5 10.00	
	P d				0.379	0.538

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miR 155 CK MB NLR

AMI VA CK MB X NLR
 2021.06 2023.06
 86 3 AMI 6 T 26 3
 Lown 0 1 0 1 0 1
 Killip 1 2 3 4 5 6
 P<0.05 Logistic Killip miR 155 CK MB NLR
 ROC AUC=0.897
 miR 155 CK MB NLR

Predictive efficacy of blood miR 155 CK MB and NLR levels on ventricular arrhythmia in patients with acute myocardial infarction

CHEN Yujun ZHONG Chunyu GAO Yadi

Emergency Department Shuyang Affiliated Hospital Nanjing University of Traditional Chinese Medicine
 Suqian Jiangsu China 223600

ABSTRACT Objective To analyze the predictive efficacy of serum miR 155 creatine kinase isoenzyme CK MB and neutrophil lymphocyte ratio NLR on ventricular arrhythmia VA in patients with acute myocardial infarction AMI . Methods A total of 86 patients with AMI were admitted to Shuyang Affiliated Hospital of Nanjing University of Chinese Medicine from June 2021 to June 2023. They received symptomatic treatment including anti infection anticoagulation analgesia and sedation. The patients were followed up for 6 months and their VA classification was evaluated using Lown classification method. Patients were stratified by Lown classification method. Results The predictive efficacy of miR 155 CK MB and NLR on VA was evaluated using Logistic regression analysis. The AUC of miR 155 CK MB and NLR was 0.897. Conclusion miR 155 CK MB and NLR levels could be used as predictive factors for VA in patients with AMI.

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E mail 1191064809@qq.com

1191064809@qq.com

Acute myocardial infarction AMI δ ή

ο Λ AMI e 55

ESR CRP SDF 1 sTREM 1

Year	ESR (%)	CRP (%)	SDF (%)	TREM (%)
2023	12.7	15.7	15.7	15.7
2022	12.7	15.7	15.7	15.7
2021	12.7	15.7	15.7	15.7
2020	12.7	15.7	15.7	15.7
2019	12.7	15.7	15.7	15.7
2018	12.7	15.7	15.7	15.7
2017	12.7	15.7	15.7	15.7
2016	12.7	15.7	15.7	15.7
2015	12.7	15.7	15.7	15.7
2014	12.7	15.7	15.7	15.7
2013	12.7	15.7	15.7	15.7
2012	12.7	15.7	15.7	15.7
2011	12.7	15.7	15.7	15.7
2010	12.7	15.7	15.7	15.7
2009	12.7	15.7	15.7	15.7
2008	12.7	15.7	15.7	15.7
2007	12.7	15.7	15.7	15.7
2006	12.7	15.7	15.7	15.7
2005	12.7	15.7	15.7	15.7
2004	12.7	15.7	15.7	15.7
2003	12.7	15.7	15.7	15.7
2002	12.7	15.7	15.7	15.7
2001	12.7	15.7	15.7	15.7
2000	12.7	15.7	15.7	15.7
1999	12.7	15.7	15.7	15.7
1998	12.7	15.7	15.7	15.7
1997	12.7	15.7	15.7	15.7
1996	12.7	15.7	15.7	15.7
1995	12.7	15.7	15.7	15.7
1994	12.7	15.7	15.7	15.7
1993	12.7	15.7	15.7	15.7
1992	12.7	15.7	15.7	15.7
1991	12.7	15.7	15.7	15.7
1990	12.7	15.7	15.7	15.7
1989	12.7	15.7	15.7	15.7
1988	12.7	15.7	15.7	15.7
1987	12.7	15.7	15.7	15.7
1986	12.7	15.7	15.7	15.7
1985	12.7	15.7	15.7	15.7
1984	12.7	15.7	15.7	15.7
1983	12.7	15.7	15.7	15.7
1982	12.7	15.7	15.7	15.7
1981	12.7	15.7	15.7	15.7
1980	12.7	15.7	15.7	15.7
1979	12.7	15.7	15.7	15.7
1978	12.7	15.7	15.7	15.7
1977	12.7	15.7	15.7	15.7
1976	12.7	15.7	15.7	15.7
1975	12.7	15.7	15.7	15.7
1974	12.7	15.7	15.7	15.7
1973	12.7	15.7	15.7	15.7
1972	12.7	15.7	15.7	15.7
1971	12.7	15.7	15.7	15.7
1970	12.7	15.7	15.7	15.7
1969	12.7	15.7	15.7	15.7
1968	12.7	15.7	15.7	15.7
1967	12.7	15.7	15.7	15.7
1966	12.7	15.7	15.7	15.7
1965	12.7	15.7	15.7	15.7
1964	12.7	15.7	15.7	15.7
1963	12.7	15.7	15.7	15.7
1962	12.7	15.7	15.7	15.7
1961	12.7	15.7	15.7	15.7
1960	12.7	15.7	15.7	15.7
1959	12.7	15.7	15.7	15.7
1958	12.7	15.7	15.7	15.7
1957	12.7	15.7	15.7	15.7
1956	12.7	15.7	15.7	15.7
1955	12.7	15.7	15.7	15.7
1954	12.7	15.7	15.7	15.7
1953	12.7	15.7	15.7	

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E mail yan3224651595@126.com

2		
z_i	$=68 \quad n$	%
$\bar{A}$	27	39.71
	16	23.53
'	7	10.29
	2	2.94
$\circ \quad \overline{\Gamma}$	2	2.94
$\bar{A}$	41	60.29
	21	30.88
	7	10.29
	5	7.35
	5	7.35
	3	4.41

2.3 N ESR 3 CRP 3 SDF 1 3 TREM 1
ESR 3 CRP 3 SDF 1 3 TREM 1
e σ P<0.05 3 3

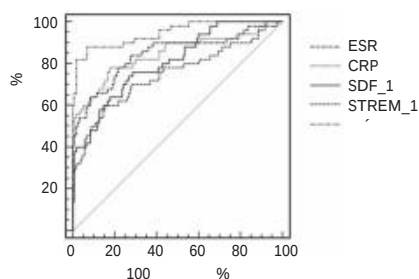
3	ESR	CRP	SDF 1	sTREM 1	P
$\bar{x}$	ESR mm/h	CRP mg/L	SDF 1 pg/mL	sTREM 1 pg/mL	
	50 52.15±17.37	16.02±5.34	204.19±67.92	64.61±21.27	
	157 31.94±10.51	9.98±3.31	141.53±47.02	39.88±13.25	
<i>t</i>	9.959	9.555	7.312	9.795	
<i>P</i>	<0.001	<0.001	<0.001	<0.001	

2.4 ESR 3 CRP 3 SDF 1 3 TREM 1 1 $\bar{\tau}$ ψ Θ^d

ESR 3 CRP 3 SDF 1 3 TREM 1 $\bar{\tau}$ ψ Θ^d AUC

$\bar{\tau}$ $P < 0.05$ 4×10^{-8}

	d	AUC	d ^{95%}	95% CI
ESR mm/h	>37.92	0.844	0.788-0.891	
CRP mg/L	>13.23	0.845	0.788-0.892	
SDF 1 pg/mL	>158.02 ^{95%}	0.806	0.745-0.857	
sTREM 1 pg/mL	>54.58 ^{90%}	0.747	0.682-0.805	
		0.945 ^{95%}	0.904-0.972	



1 ROC

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¹⁰ ѳ ѱ ჳ ẽ[illegible]

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Hcy NT proBNP HbA1c

100 pregnant women with gestational diabetes who were admitted to Xingtai Central Hospital from January 2020 to January 2021 and had newborns with abnormal cardiac development were selected as the abnormal group. Additionally, pregnant women with gestational diabetes who came to our hospital during the same period and had healthy newborns were selected as the normal group. The general data, Hcy, NT proBNP and HbA1c levels of the two groups of pregnant women were compared. Pearson correlation analysis was used to analyze the correlation between maternal serum Hcy, NT proBNP and HbA1c during pregnancy and neonatal cardiac function. Receiver operating characteristic curve and its area under the curve were drawn to evaluate the predictive value of maternal serum Hcy, NT proBNP and HbA1c levels during pregnancy on neonatal cardiac dysplasia. Results: The levels of Hcy, NT proBNP and HbA1c in the abnormal group were higher than those in the normal group, and the differences were statistically significant ($P < 0.05$). The levels of IVS thickness, LV, RV and PAD in the abnormal group were higher than those in normal group, and the differences were statistically significant ($P < 0.05$). Pearson correlation analysis showed that maternal blood Hcy, NT proBNP and HbA1c were positively correlated with neonatal heart IVS thickness, PAD, LV and RV values ($P < 0.05$). ROC curve results indicated that the AUC values of maternal blood Hcy, NT proBNP and HbA1c levels in predicting neonatal cardiac dysplasia were 0.725, 0.731 and 0.712, respectively.

Correlation between maternal serum Hcy NT proBNP HbA1c levels during pregnancy and neonatal cardiac function

ZHAO Gang LIU Huili LI Xinyu ZHENG Lixia WU Qingju

Obstetrics Department Xingtai Central Hospital Xingtai Hebei China 054000

ABSTRACT Objective To investigate the correlation analysis between maternal serum homocysteine (Hcy), N terminal B type natriuretic peptide precursor (NT proBNP) and glycated hemoglobin (HbA1c) levels during pregnancy and neonatal cardiac function. Methods 100 pregnant women with gestational diabetes who were admitted to Xingtai Central Hospital from January 2020 to January 2021 and had newborns with abnormal cardiac development were selected as the abnormal group. Additionally, pregnant women with gestational diabetes who came to our hospital during the same period and had healthy newborns were selected as the normal group. The general data, Hcy, NT proBNP and HbA1c levels of the two groups of pregnant women were compared. Pearson correlation analysis was used to analyze the correlation between maternal serum Hcy, NT proBNP and HbA1c during pregnancy and neonatal cardiac function. Receiver operating characteristic curve and its area under the curve were drawn to evaluate the predictive value of maternal serum Hcy, NT proBNP and HbA1c levels during pregnancy on neonatal cardiac dysplasia. Results The levels of Hcy, NT proBNP and HbA1c in the abnormal group were higher than those in the normal group, and the differences were statistically significant ($P < 0.05$). The levels of IVS thickness, LV, RV and PAD in the abnormal group were higher than those in normal group, and the differences were statistically significant ($P < 0.05$). Pearson correlation analysis showed that maternal blood Hcy, NT proBNP and HbA1c were positively correlated with neonatal heart IVS thickness, PAD, LV and RV values ($P < 0.05$). ROC curve results indicated that the AUC values of maternal blood Hcy, NT proBNP and HbA1c levels in predicting neonatal cardiac dysplasia were 0.725, 0.731 and 0.712, respectively.

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E mail zhaog8886@163.com

2	Hcy NT proBNP		HbA1c	
q	Hcy μmol/L	NT proBNP pg/mL	HbA1c %	
100	17.19±2.01	205.93±54.45	6.02±0.71	
100	15.42±2.09	162.07±37.19	5.54±0.42	
^d t	6.104	6.652	5.819	
P ^d	<0.001	<0.001	<0.001	

3	IVS H ₁ mm	LV mm	RV mm	EF %	PAD mm
100	3.57±0.82	16.52±1.79	8.51±1.20	60.47±1.92	8.10±1.04
100	3.16±0.71	15.94±1.35	8.02±0.73	60.18±1.49	7.58±0.82
^d t	3.780	2.587	3.489	1.193	3.926
P ^d	<0.001	0.010	<0.001	0.234	<0.001

2.3 M Hcy NT proBNP HbA1c V

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R e ā n ũr s M Hcy NT proBNP HbA1c V IVS H₁ PAD LV RV

RV^d V ā P<0.05 6 4 6

2.4 M Hcy NT proBNP HbA1c

V T Θ^d

ROC M Hcy NT proBNP HbA1c

V T AUC^d δ 0.725 AUC δ 0.863

0.731 0.712 6 3 77.0% 83.0% P<0.05 6 5 3 1 6

5	Hcy NT proBNP		HbA1c	
	AUC	95% CI	^d %	% P ^d
Hcy	0.725	0.656~0.794	16.14 μmol/L	66.0 70.0 <0.001
NT proBNP	0.731	0.661~0.801	208.11 pg/mL	61.0 89.0 <0.001
HbA1c	0.712	0.640~0.784	5.82%	60.0 77.0 <0.001
	0.863	0.813~0.912		77.0 83.0 <0.001

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p¹⁰ 6¹¹ V' p H₁O

γ E h

6 x V T w y ũ

' V v Ā ā 6

Hcy ē δ v ll ŷ u^h

Hcy V X 5 h O v

V O 3 " X T v 5 Hcy

3¹² 6 Hcy

Ль M X Hcy NT proBNP HbA1c

с π v * V T h 6

o h¹³ ' p * V

w π ц ζ NT proBNP

T ε y u^h 6 NT proBNP *

V T ũ ā 3 * Ē V W w

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NT proBNP v HbA1c

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¹⁶ HbA1c π * V

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v ā h¹⁷ Ē v 5

V T i Φ v T V 3

H₁O w ' E 6

Ē N V IVS H₁ 3 LV 3 RV 3 EF w

PAD ' T V p EF *

Ē ē v 3 " v

Ль V ē ũ 6

h 3¹⁸ 6 ũ M

Hcy NT proBNP HbA1c *

T M Hcy NT proBNP HbA1c *

V IVS H₁ 3 LV 3 RV w PAD V O ā

T * M Hcy NT proBNP HbA1c

HbA1c ũ ā 6 h ROC

M Hcy NT proBNP HbA1c V T

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ē v W 6 ē 6

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M Hcy NT proBNP HbA1c

Ль O Ē * V IVS H₁ 3 LV 3 RV w

PAD ' V ā ' 3

V T ē Θ^d ωЛь h J

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6~8

P y J

E mail 422207430@qq.com

gestational diabetes mellitus GDM 7
p l T 3 4 V p Å ' ó 5 ' È
T~ 2 13 6 E T~ 5 '
δ 22.3%~43.8%⁴⁶ 2 GDM T~
i 2 h/ ħ Θ d 6 GDM
insulin degrading enzyme IDE 2 rs11187007 5
E Γ ă A 7 j 8 G



	t	ω	%	n	c^2	ω	2.5	N	'	χ		
$P < 0.05$	φ	σ	σ					N	'	χ	τ	σ $P > 0.05$ σ
2								6	σ			

2.1 N ħ
2 T ~ Ъ 92.96% vs
81.54% σ P<0.05 6 2 6

		2				n							
$\dot{\alpha}$		n											
c^2	d	71	6	8.45	31	43.66	29	40.85	5	7.04	66	92.96	
		65	2	3.08	25	38.46	26	40.00	12	18.46	53	81.54	4.046
p	d												0.044

2.2 N X J ũ 7/8 "Ω τ δ
 * ̈w 2 T ~ N ~ X J o * k Ì k 8 6
 ũ H O H Л σ P< ê ã ω X M ~ ã ω
 0.05 6 3 6

2.3 N
IL 6 H₂O
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2 T ~ N NGAL 3CCL2 3
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ε 3

2.4 N 2 T ~ N Scr BUN UA 3 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

		3		5		7		
		μ		$\tilde{\mu}$		σ		
α	n	$\hat{\omega}$	$\sim$	$\hat{\omega}$	$\sim$	$\hat{\omega}$	$\sim$	
d	71	4.85±0.52	1.68±0.22 ^a	4.95±0.37	2.05±0.26 ^a	4.67±0.51	1.87±0.23 ^a	
	65	4.79±0.46	1.94±0.31 ^a	5.02±0.48	2.31±0.22 ^a	4.78±0.57	2.06±0.19 ^a	
	t	0.710	5.677	0.957	6.266	1.188	5.225	
P	d		0.479	<0.001	0.340	<0.001	0.237	<0.001
χ^2	$\hat{\omega}$	^a $P<0.05$ g						

		4		NGAL CCL2 IL 6			
α	n	NGAL ng/mL		CCL2 pg/mL		IL 6 pg/mL	
		Δ	~	Δ	~	Δ	~
d	71	159.67±16.63	114.69±12.57 ^a	476.56±89.67	304.56±52.43 ^a	16.53±4.16	8.46±2.67 ^a
	65	155.81±17.44	131.56±13.78 ^a	469.61±82.76	367.59±63.44 ^a	15.89±4.82	11.57±3.06 ^a
^d t		1.321	7.466	0.468	6.336	0.831	6.328
^P d		0.189	<0.001	0.640	<0.001	0.408	<0.001

		5		Scr BUN UA	
Q	n	Scr $\mu\text{mol/L}$		BUN mmol/L	
		Q	~	Q	~
d	71	126.53 $\pm$ 16.53	91.22 $\pm$ 10.64 ^a	7.86 $\pm$ 1.61	5.11 $\pm$ 1.02 ^a
	65	121.47 $\pm$ 15.34	103.55 $\pm$ 11.27 ^a	7.73 $\pm$ 1.52	5.87 $\pm$ 1.
	t	1.819	6.562	0.483	
P d		0.071	<0.00165	0.630	

2	E	E .	2024 35 3 657 660.
3	W	.	2021 18 4 127
4	η	.	2021 19 30 15.
5	.	.	2018 189.
6	.	.	2002 143 150.
7	.	.	2022 43 1 243 244.
8	.	.	2024.
9	η	.	2022 37 6 45 48.
10	.	.	2024.
11	.	.	2020 26 5 34 41.
12	.	.	2019 54 5 877 885.
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5	.	.	2018 29 6 142 144.
6	.	.	2024 16 3 516 519.
7	.	.	2019 25 1 29 32.
8	.	.	2022 57 1 3 12.
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12	.	.	2021 31 14 31 33.
13	.	.	2020 23 8 27 29.
14	.	.	2023 38 7 1266 1269.
15	.	.	2018 32 9 1415 1422.

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đ	n	DAO U/mL		D LA mg/L		ET EU/mL	
		đ	~	đ	~	đ	~
	46	3.41±0.82	2.53±0.58 ^a	6.42±1.18	4.72±1.13 ^a	0.63±0.16	0.46±0.11 ^a
	44	3.44±0.75	3.12±0.69 ^a	6.35±1.24	5.82±1.25 ^a	0.62±0.14	0.55±0.15 ^a
d	t	0.181	4.398	0.274	4.383	0.315	3.256
P d		0.857	<0.001	0.784	<0.001	0.754	0.002

•• đ ^aP<0.05 ẽ

2.3 N

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σ P<0.05 ẽ 4 ẽ

2.4 N X[⊥] đ H ÷ đ

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đ	n		
	46	9.94±2.24	4.15±1.57
	44	15.37±3.15	7.83±1.92
d	t	9.457	9.973
P d		<0.001	<0.001

•• đ ^aP<0.05 ẽ

5

đ

đ	n	đ		đ		đ		đ	
		đ	~	đ	~	đ	~	đ	~
	46	2.05±0.21	1.17±0.37 ^a	2.31±0.18	1.51±0.32 ^a	2.11±0.22	1.05±0.29 ^a	1.25±0.15	0.84±0.14 ^a
	44	2.07±0.22	1.61±0.41 ^a	2.29±0.17	1.74±0.34 ^a	2.13±0.24	1.21±0.28 ^a	1.27±0.17	1.01±0.13 ^a
d	t	0.441	5.349	0.541	3.306	0.412	2.661	0.592	5.963
P d		0.660	<0.001	0.590	0.001	0.681	0.009	0.555	<0.001

•• đ ^aP<0.05 ẽ

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Contrast induced nephropathy CIN ě δ PCI ~ ≡

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^{CC-BY-NC-ND 4.0} **A** **On** reactive protein CS ς ∞ :

2.3	CRP	PCT	MAU	Q'	PCI	~	τ	CIN
Θ ^d								
ROC	Ũ	CRP+PCT	MAU	Q'	τ	3CRP+		
PCT	3CRP+MAU	3PCT+MAU	3CRP+PCT+MAU	Q'				
PCI	~	τ	CIN	Q	AUC	Ũ	Ũ	δ
0.792	0.819	0.889	0.893	0.901	0.940	P<0.05	0	33a 10

$\bar{Q}$	PCI	$\sim \tau$	CIN	$\circ$	α	$P <$
0.05	θ	2θ				
CIN g	L	i	c	o	t	s
dW	d	l	OR	d		P^d
16.456			1.154		1.077~1.237	<0.001
13.292			1.680		1.271~2.220	<0.001
15.392			3.977		1.996~7.928	<0.001
16.247			1.386		1.183~1.624	<0.001

PCI ~ CIN
PCT MAU
A CIN W

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E mail 116100965@qq.com

hs CRP IL 10

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IL 10	α TNF α	hs CRP	IL 10	α TNF α	hs CRP
204	102	102	204	102	102
3	3	3	3	3	3
7 d	7 d	7 d	7 d	7 d	7 d
σ	σ	σ	σ	σ	σ
P<0.05	P<0.05	P<0.05	P<0.05	P<0.05	P<0.05
α	α	α	α	α	α
β	β	β	β	β	β
γ	γ	γ	γ	γ	γ
δ	δ	δ	δ	δ	δ
ε	ε	ε	ε	ε	ε
ζ	ζ	ζ	ζ	ζ	ζ
η	η	η	η	η	η
θ	θ	θ	θ	θ	θ
ι	ι	ι	ι	ι	ι
κ	κ	κ	κ	κ	κ
λ	λ	λ	λ	λ	λ
μ	μ	μ	μ	μ	μ
ν	ν	ν	ν	ν	ν
ξ	ξ	ξ	ξ	ξ	ξ
ο	ο	ο	ο	ο	ο
π	π	π	π	π	π
ρ	ρ	ρ	ρ	ρ	ρ
σ	σ	σ	σ	σ	σ
τ	τ	τ	τ	τ	τ
υ	υ	υ	υ	υ	υ
φ	φ	φ	φ	φ	φ
χ	χ	χ	χ	χ	χ
ψ	ψ	ψ	ψ	ψ	ψ
ω	ω	ω	ω	ω	ω

Н Т Т σ P>0.05 в

with lower limb swelling and pain after cerebral infarction

FAN Jiaojiao YUAN Ying HE Xiaoyan KONG Yongmei CHEN Jingxia LI Juan ZHANG Xueyuan
WANG Ziyue

Department 4 of Neurology, Yingtai Central Hospital, Yingtai, Hebei, China, 054000

ABSTRACT Objective To study the effect of mirabilite therapy on levels of serum high sensitivity C reactive protein hs CRP interleukin 10 IL 10 tumor necrosis factor TNF α and pain in patients with lower limb swelling and pain after cerebral infarction. Methods A total of 204 patients with lower limb swelling and pain after cerebral infarction were admitted to Xingtai Central Hospital from January 2023 to December 2024 and selected as research subjects. They were randomly divided into two groups the routine group 102 cases receiving routine nursing and the mirabilite group 102 cases receiving routine nursing combined with mirabilite external application. Both groups were treated for 7 days and observed until discharged. The levels of serum hs CRP IL 10 and TNF α as well as measurements at the distal femur midpoint of the patella proximal circumference of the calf pain in the affected limb and complications of the affected limb were compared between the two groups. Results After 7 days of intervention the levels of serum hs CRP and TNF α decreased in the two groups with the mirabilite group showing lower levels than the conventional group. Serum IL 10 levels increased with the mirabilite group showing higher levels than the conventional group. These differences were statistically significant $P<0.05$

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E mail 15632900777@163.com

can help eliminate swelling and alleviate pain in the affected limb as well as reduce the risk of complications. These findings iiiim j u Q ð y pa "

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10 2024 30 4 471 475.

11 2024 30 2 224 228.

12 2024 16 10 51 54 59.

13 2020 36 5 24 25.

14 ERCP 2022 33 10 1415 1421.

15 2020 29 3 519 521.

3 2022 51 1 44 47.

4 2022 50 10 1242 1245.

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6 2022 45 5 1262 1265.

7 2021 25 8 1126 1129.

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RNA

RNA long non coding RNA Inc RNA NSCLC T Treg 2019 1 2022 8 2023 NSCLC 2023 FCM 2023 W

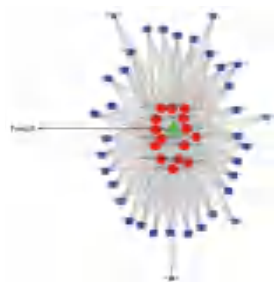
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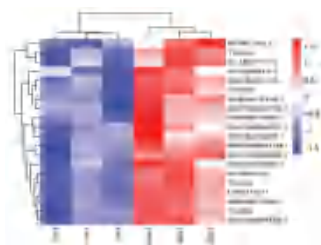


2	F	3	o x	p	lncRNA
lncRNA	Foldchange	log2 Foldchange	P d	y	
NONHSAT197842.1	6.252772532	2.644496035	0.003744685	c	
lnc CNKSR3 6 1	5.595940447	2.484380609	0.040451488	c	
ENST00000654665.1	4.483799645	2.164721814	0.001557611	c	
T163140	4.151274068	2.053554182	0.003593459	c	
T104896	3.660443994	1.872018651	0.003220876	c	
lnc MAFK 6 2	3.524012524	1.817219052	0.002332792	c	
T218918	3.099221467	1.631905852	0.009041246	c	
ENST00000661259.1	2.881481329	1.526810672	0.005058786	c	
LINC01176 11	2.662383171	1.412718219	0.002060356	c	
NONHSAT168000.1	2.473242463	1.30640368	0.027257059	c	
MSTRG.1162.3	2.447078236	1.291060227	0.022696707	c	
NONHSAT190090.1	2.403338656	1.265039954	0.048093567	c	
ENST00000449175.1	2.381114596	1.251637055	0.027380143	c	
T031242	2.35587797	1.236264812	0.001203086	c	
lnc MEGF11 1 4	2.265791776	1.180015285	0.016886665	c	
NONHSAT215097.1	2.167415313	1.115975624	0.033962408	c	
ENST00000661748.1	2.165247729	1.114532095	0.005809661	c	
NONHSAT201276.1	2.120363828	1.084311834	0.003969649	c	
ENST00000642756.1	2.0624249	1.044341587	0.01996815	c	
NONHSAT163146.1	2.036900652	1.026375616	0.003741604	c	

1995 Sakaguchi 4 T 5% 10%
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3 lncRNA TF mRNA



4 Foxp3 lncRNA

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			a g		u d	=47 3 n			=103 n
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wj	3	L	25 OH D 3VEGF	H L					s P<0.05 g
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Relationship between serum 25-OH-D, Hcy, CL21 and VEGF and disease severity and pregnancy outcomes in patients with hypertensive disorder complicating pregnancy

SONG Jie¹ ZHANG Lihong¹ GAO Yamei² ZHAO Yanling³

1. Department of Obstetrics and Gynecology Qinhuangdao Maternal and Child Health Hospital Qinhuangdao Hebei China 066000 2. Department of Obstetrics and Gynecology Qinhuangdao Maternal and Child Health Hospital Qinhuangdao Hebei China 066000 3. Department of Obstetrics and Gynecology Chengde Maternal and Child Health Hospital Chengde Hebei China 067000

ABSTRACT Objective To explore the relationship between serum 25 hydroxyvitamin D 25 OH D homocysteine Hcy CC chemokine ligand 21 CCL21 and vascular endothelial growth factor VEGF and disease severity and pregnancy outcomes in patients with hypertensive disorder complicating pregnancy. Methods 81 patients with simple gestational hypertension in Qinhuangdao Maternal and Child Health Hospital from December 2022 to December 2024 were set as gestational hypertension group and 69 patients with pre eclampsia were included in pre eclampsia group. Serum 25 OH D Hcy CC chemokine ligand 21 CCL21 and vascular endothelial growth factor VEGF were compared between the two groups. Pearson correlation analysis was used to analyze the relationship between serum 25 OH D Hcy CCL21 and VEGF and disease severity in patients with gestational hypertension. According to the pregnancy outcomes they were divided into poor pregnancy outcome group =47 and good pregnancy outcome group =103. Multivariate logistic regression was adopted to analyze the influencing factors of pregnancy outcomes in patients with gestational hypertension. Results The levels of serum Hcy and CCL21 in the gestational hypertension group were higher than those in the pre eclampsia group while the levels of 25 OH D and VEGF were lower than those in the pre ec

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E mail 542173860@qq.com

lampsia group $P<0.05$. Pearson analysis showed that serum 25-OH-D and VEGF were negatively correlated with disease severity $P<0.05$ and Hcy and CCL21 were positively correlated with disease severity $P<0.05$. The age BMI positive rate of family history of hypertension serum Hcy CCL21 and proportion of severe disease in the poor pregnancy outcome group were higher while the levels of 25-OH-D and VEGF were lower compared to the good group with statistical differences $P<0.05$. 25-OH-D Hcy CCL21 VEGF and disease severity were independent factors affecting pregnancy outcomes $P<0.05$. Conclusion The mong . I

3 BMI 3 ♣
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E mail 15813360776@163.com

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LI Chao¹ LI Guangquan² MEN Ziqi³ LI Zuo¹ HUANG Xiaocui¹

ABSTRACT **Objective** To explore the performance analysis of an intelligent screening and evaluation model for circulating tumor cells constructed based on deep learning algorithms and immunofluorescence in situ hybridization imFISH technology. **Methods** From January 2022 to December 2022 1 000 circulating tumor cell CTC images and 2 000 healthy cell images from the Maternal and Child Health Hospital of Jinjiang District Chengdu City were collected. The 1 000 circulating tumor cell images were randomly divided into a training set =800 and a test set =200 at an 8B2 ratio. The 2000 healthy cell images were randomly divided into a training set =1600 and a test set =400 at the same ratio. The consistency of imFISH manual diagnosis intelligent screening and evaluation model diagnosis combined diagnosis and comprehensive diagnosis was compared and the diagnostic efficacy of different diagnostic methods for tumor patient screening was evaluated. **Results** For imFISH manual diagnosis of tumor patients the sensitivity was 91.50% specificity 94.25% accuracy 93.33% and the Kappa value 0.851. For the intelligent screening and evaluation model the sensitivity was 84.00% specificity 90.25% accuracy 88.67% and Kappa value 0.736. For the combined diagnosis of imFISH manual diagnosis with the intelligent screening and evaluation model the sensitivity was 96.50% specificity 97.25% accuracy 97.00% and Kappa value 0.933. The sensitivity specificity and accuracy of the combined diagnosis were significantly higher than those of the either single diagnostic method $P<0.05$. **Conclusion** The

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patients with acute myocardial infarction were 0.942, 0.915–0.968, 0.820 and 0.930 respectively. Conclusion The levels of GPBB and *iR 21 5* - in the peripheral blood of patients with acute myocardial infarction increase while the level of BChE decreases. The combined detection of the three has a good diagnostic value for acute myocardial infarction.

KEY WORDS Glycogen phosphorylase enzyme BB in brain microRNA 21 5p Butyrylcholinesterase Acute myocardial infarction Diagnosis

Acute myocardial infarction AMI

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1.1 h

2022 2 2025 2 $\pi X \downarrow$ h

$\downarrow$ 128 $\mathfrak{z} \delta$ $\mathfrak{M}$

p 128 $\mathfrak{z} \delta$ $\mathfrak{G}$ $\mathfrak{A}$ $\mathfrak{A}$ $\mathfrak{y}$

$X \downarrow$ $\mathfrak{h}$ $\pi \mathfrak{h}^7 X$ $\downarrow$ $\mathfrak{A}$

>18 $\mathfrak{h}$ $\mathfrak{z}$ $\mathfrak{A}$

$\mathfrak{W}$ $\mathfrak{z} \mathfrak{G}$ $\mathfrak{A}$

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Cardiac troponin I CTnI Å 'H Ũ ĩ

z Fibrinogen FIB Å 7/8 Ũ ĩ

Glucose Glu ⱡ Blood urea nitrogen

BUN 3† Lactate dehydrogenase LDH 3⊃

Triglyceride TG 3B Alanine aminotrans

ferase ALT ⱡ Creatinine Cr 3H Low den

sity lipoprotein cholesterol LDL C ⱡ Cre

atine kinase MB CK MB 3

1.2.2 GPBB 3 iR 2l 5 BChE m p
O ~ e ħ 6 mL
ũ δ N Oy g^h Oy 3 000 r/min 10 ũ
4 ê X ģ GPBB ģ BChE
H ũ á Á ~ ģ
JĴ Á ~ e H GPBB ê
CV 2.21±0.12 % 3 CV 2.64±0.23 % 3 95.67±
2.48 % BChE ê CV 2.13±0.15 % 3 CV 2.59±
0.27 % 3 96.10±2.51 % * 3
e ĵ^h Oy Ľ 4 e ~ f Trizol ģ
RNA A260/A280 δ 1.8~2.1 ģ e G U6 δ ê
C W PCR miR 21 5p
e PCR δ 95 10 min ~ 94 15 s 360 20 s 3
70 30 s ă 40 T e 3 T Ct
d C Ľ 1.5% 2 ΔΔCt
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		1	<i>iR 21 5 -U6-</i>	<i>m p</i>
α	ϵ	" Ω 5' 3'	ϑ	" Ω 5' 3'
<i>iR 21 5 - - m p</i>		TGCGCTAGCTTATCAGACTGAT		CCAGTGCAGGGTCCGAGGTATT
<i>U6</i>		CGCTTCGGCAGCACATATAC		AAATATGGAACGCTTCACGA

1.3

SPSS 23.0 ψ $\tilde{u}$ $\mathfrak{G}$

$\bar{\pm}s$ t % n

c^2 $\mathfrak{G}$ Logistic $\mathfrak{E}$ $\mathfrak{A}$ $\tilde{u}$ $\tilde{u}$

$\mathfrak{A}$ $\mathfrak{G}$ $\mathfrak{A}$ η $\mathfrak{E}$ ROC $\tilde{u}$

GPBB $\mathfrak{A}$ iR 21 5 ψ BChE m p

$\Theta^d \in \mathbb{C} P < 0.05 \delta$
 $\sigma \in$

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2.1 N γ GPBB $\mathfrak{z}$ iR 21 5 ψ BChE m p

γ GPBB $\mathfrak{z}$ iR 21 5 - - $\mathbb{L}$ m p BChE

$\mathbb{H}/\mathbb{L}$
 σ $P < 0.05$ $\in$
 2 $\in$

2	GPBB	iR 2l 5	- BChE	m p
Ў	GPBB µg/L	miR 2l 5p	BChE kU/L	
128	9.27±4.42	2.43±0.91	7.39±3.56	
128	5.46±1.38	1.56±0.40	15.41±6.82	
d	t	9.309	9.902	11.794
P d		<0.001	<0.001	<0.001

2.2 N ń

N	Ў	ALT	BMI	γ	FIB	BUN
	Ў	ALT	BMI	γ	FIB	BUN
P>0.05		Cr	CK MB	LDH	IL 6	CTnI
		σ	P<0.05	б	3 б	

3			%	n
	=128 n	=128 n	IC ² d	R ^d
Ў	72 56.25	67 52.34	0.394	0.531
	56 43.75	61 47.66		
	61.86±5.91	62.41±5.87	0.747	0.456
BMI kg/m ²	22.94±1.65	23.09±1.68	0.721	0.472
γ	77 60.16	83 64.84	0.600	0.439
	51 39.84	45 35.16		
	73 57.03	78 60.94	0.404	0.525
	55 42.97	50 39.06		
	23 17.97	19 14.84	0.456	0.500
	105 82.03	109 85.16		
б	66 51.56	61 47.66	0.391	0.532
	62 68.44	67 52.34		
TG mmol/L	1.23±0.62	1.30±0.65	0.882	0.379
Glu mmol/L	5.04±0.81	4.93±0.84	1.067	0.287
LDL C mmol/L	2.66±0.38	2.72±0.39	1.247	0.214
BUN mmol/L	5.43±0.82	5.54±0.85	1.054	0.293
Cr µmol/L	71.13±6.56	57.46±5.37	18.243	<0.001
FIB g/L	2.98±0.62	3.11±0.69	1.586	0.114
ALT U/L	23.61±3.74	24.15±3.83	1.141	0.255
LDH U/L	214.53±16.84	181.76±15.72	16.094	<0.001
CK MB µg/L	9.59±4.78	1.42±0.84	19.046	<0.001
CTnI µg/L	1.36±0.65	0.24±0.16	18.929	<0.001
IL 6 pg/mL	13.54±4.89	4.67±0.93	20.161	<0.001

2.3 ń

Ў 1 ~ =0 Ў Cr
CK MB LDH IL 6 CTnI GPBB iR 2l 5 BChE δ m p
Logistic ń Cr CK MB LDH IL 6
CTnI GPBB iR 2l 5 - - m p 0 ń
BChE ' ń P<0.05 б 4 б

2.4 GPBB iR 2l 5 BChE m p

Θ d
ROC GPBB iR 2l 5 BChE ń m p
Ў AUC 95%CI 0.942 0.915-0.968 f Ь
h P<0.05 б 5 3а 1 б

3

ě δ^h Ā M ε
ń е 3 ń ń ń
5 3 ń
M 8 б ъ
Ў 3
Q 3
ě 3 3
e^a ā p e^u
e^u 3 3 f^u
ā ~ δ 3 3 W
9 б ń

ń	d	d	SE ^d	ΔW	c ² d l	OQl
Cr	Ў	1.092	0.362	9.100		
LDH	Ў	0.996	0.358	7.740		
CK MB	Ў	1.143	0.361	10.025		
CTnI	Ў	1.125	0.367	9.397		
IL 6	Ў	1.151	0.352	10.692		
GPBB	Ў	0.748	0.346	4.674		
miR 2l 5p	Ў	0.760	0.344	4.881		
BChE	Ў	-0.874	0.351	6.200		

13 β HBB c. 81 A>C

1 2 2 1 1 1 1 1 1

1 1 1

β HBB c. 81 A>C

GAP PCR Sanger

13 HBB

IVS 654 C>T 654M

80.8fl

11 MCH 16.2 26.6p

P 26

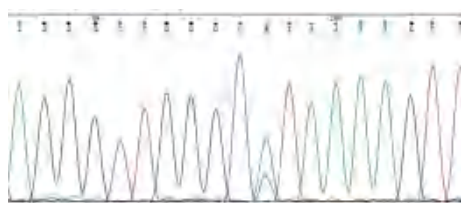
HbA₂ 4.0%~5.4%

MCV 57.1

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2. 510700

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1 1 β HBB c. 81 A>C Sanger

129delCTTT CD41 42 HBB c.316 197 C>T IVS 654 HBB c. 78 A>G 28 HBB c.52 A>T CD17

HbA₂ HbF α β X γ 12

HBB c.316 197C>T IVS 654 HBB c. 81 A>C

Sanger HBB c. 81 A>C 31 A>C HBB c.316 197C>T IVS 654

HBB c. 81 A>C β X HBB c. 81 A>G β 1986 HBB c. 81 A>C 31 A>C

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E mail qumeihua2016@163.com

KEY WORDS Rhinovirus yangi Coinfections Cytological classification

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1.5 SPSS 26.0 M Q1 Q3 Logistic $P < 0.05$

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papillomavirus HPV 2b recombinant human interferon α 2b rhIFN α 2b
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ALA PDT X'O 2 3
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3	6		HPV		n	
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rhIFN α 2b	34	34	1 2.94	10 29.41 ^a	2 5.88	11 32.35 ^a
ALA PDT	34	34	1 2.94	7 20.59 ^a	2 5.88	13 38.24 ^a
	34	34	0 0.00	1 2.94 ^{bc}	0 0.00	2 5.88 ^{bc}
F^d			1.020	8.500	2.082	13.141
P^d			0.600	0.014	0.353	0.001

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 2017 125 126.
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1 α was lower than that with negative HIF 1 α HR 2.016 95% CI 9.515~10.647 $P<0.05$. The recurrence free survival rate within one year in patients with positive SGK1 was lower than that with negative SGK1 HR 2.242 95% CI 9.497~10.586 $P<0.05$. The proportions of stage endometrial cancer and low differentiation incidence of lymph node metastasis and degree of myometrial invasion in patients with N/U ≥ 0.21 were all higher than those with N/U <0.21 $P<0.05$. The proportions of stage endometrial cancer and low differentiation incidence of lymph node metastasis and degree of myometrial invasion in patients with positive HIF 1 α were all higher than those with negative HIF 1 α $P<0.05$. The proportions of stage endometrial cancer and low differentiation incidence of lymph node metastasis and degree of myometrial invasion in patients with positive SGK1 were higher than those with negative SGK1 $P<0.05$. Spearman analysis showed that N/U HIF 1 α and SGK1 were positively correlated with the staging of endometrial cancer lymph node metastasis and degree of myometrial invasion while negatively correlated with tumor differentiation degree $P<0.05$. Conclusion N/U HIF 1 α and SGK1 are all associated with disease progression in patients with endometrial cancer. The risk of recurrence in endometrial cancer patients is elevated in individuals with high levels of N/U HIF 1 α and SGK1.

KEY WORDS Endometrial cancer Neoplasm/uterus volume ratio Hypoxic inducible factor 1 α Glucocorticoid induced kinase 1

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[illegible]

KEY WORDS DKD Qi yin deficiency and blood stasis type SHYS Blood uric acid Cys C Hcy

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 ̑ N 4 ʎ[~] 2h PG ̑ HbAlc ̑ Cr ̑ BUN
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NT pro BNP D D GRACE

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Q' I ψ O GRACE ũ * o ũ ã ¼ ~ Θ d e 2022 1
 2024 10 ¼ L J 112 3 ã ã ã 24 h e
 GRACE ũ ω ũ δ H o =38 3X o =51 ¼ o =23 n ' o ũ NT pro
 BNP 3D D ψ GRACE ũ ã ~ 30 d ũ δ MACE =31 ¼ MACE =81 n N
 h 3 NT pro BNP 3D D ψ GRACE ũ ¼ Logistic e ũ ĩ τ
 MACE ¼ ROC ũ NT pro BNP 3D D ψ GRACE ũ ~ Θ d e
 NT pro BNP 3D D ψ GRACE ũ H o < X o < o σ P<0.05
 MACE NT pro BNP 3D D ψ GRACE ũ ¼ MACE σ P<0.05
 NT pro BNP 3D D ψ GRACE ũ ¼ τ MACE o ¼ P<0.05 NT pro
 BNP 3D D ψ GRACE ũ τ MACE AUC ũ ¼ δ 0.854 30.832 30.796 '
 AUC δ 0.981 ' AUC ¼ ~ ¼ AUC P<0.05 e NT pro BNP 3D D
 ψ GRACE ũ * o ũ ã o ã 30 d MACE τ h Θ d e
 N ¼ M D ĩ M Ą Q' I ψ O ũ

Relationship between serum NT pro BNP D D and GRACE scores and risk stratification in patients with emergency chest pain and their predictiv !

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higher in the MACE group compared to the the non MACE group and the difference was statistically significant $P<0.05$. Elevated serum NT pro BNP D D and GRACE scores were identified as risk factors for MACE in patients with emergency chest pain $P<0.05$. The AUCs for serum NT pro BNP D D and GRACE scores in predicting MACE among emergency patients with chest pain were 0.854 0.832 and 0.796 respectively. The combined prediction AUC was 0.981 which was significantly higher than the individual AUC of each index $P<0.05$. Conclusion The serum NT pro BNP D D and GRACE scores of patients with emergency chest pain are related to risk stratification. These three indicators have a certain predictive value for the occurrence of MACE in patients with emergency chest pain within 30 days after admission.

KEY WORDS Emergency chest pain NT pro BNP D D GRACE

acute myocardial infarction AMI
NT pro brain natriuretic peptide NT pro BNP
D dimer D D
major adverse cardiovascular events MACE
Global Registry of Acute Coronary Events GRACE
MACE GRACE

3/4

1		NT pro BNP			
		D D	GRACE		
α		NT pro BNP pg/mL	D D $\mu\text{g/L}$	GRACE	$\checkmark$ $\checkmark$
H ₁ ○	38	291.70±33.64	196.86±28.17	101.48±6.70	
X ○	51	332.72±44.18 ^a	211.26±32.53 ^a	122.35±10.67 ^a	
○	23	390.74±54.41 ^{ab}	256.78±37.58 ^{ab}	158.29±15.49 ^{ab}	
F ^d		37.537	25.633	199.541	
P ^d		<0.001	<0.001	<0.001	

$$^a H_0 \quad ^a P < 0.05 \quad ^b X_0 \quad ^b P < 0.05$$

	2	MACE	MACE				χ^2	P
			%		n			
			MACE =81	n	MACE =31	n		
α							0.023	0.879
			51	62.96	20	64.52		
			30	37.04	11	35.48		
			56.94±8.14		58.06±8.33		0.647	0.519
π	h		9.08±1.55		9.56±2.14		1.313	0.192
ϕ			15	18.52	10	32.26	2.441	0.118
			25	30.86	11	35.48	0.219	0.640
			21	25.93	13	41.94	2.718	0.099
λ	/min		19.23±2.58		19.41±2.13		0.346	0.730
	/min		81.47±16.82		82.38±17.25		0.254	0.800
α	ϕ mmHg		136.47±28.14		141.02±25.66		0.784	0.435
α	ϕ mmHg		78.13±15.63		79.89±17.11		0.519	0.605

	MACE	MACE GRACE	NT pro BNP n	D D $\mu\text{g/L}$	BNP D D GRACE $\bar{x}$	D D $\bar{x}$
MACE	81	311.19±42.54	202.12±31.66	119.48±9.77		
MACE	31	381.74±50.88	251.26±34.53	130.93±13.45		
t		7.429	7.166	4.975		
P		<0.001	<0.001	<0.001		

2.4 $\tilde{u}$ τ MACE α Logistic β

ω $\sim \tau$ MACE $=1$ $\sim =0$ δ α γ

$\omega \varphi$ σ τ α NT pro BNP β D β GRACE $\tilde{u}$

δ d δ γ α Logistic β

NT pro BNP β D ψ GRACE $\tilde{u}$ η

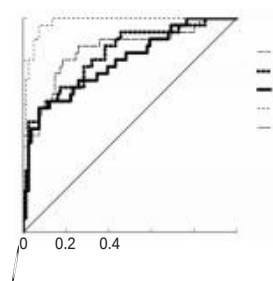
τ MACE $\circ$ α $P < 0.05$ θ 4θ

4	MACE					Logistic	
$\hat{\beta}$	d	$SE\ d$	ΔW	C^2	$OR\ d$	95% CI	$P\ d$
NT pro BNP	1.164	0.336	12.003	3.203	1.658	0.6188	<0.001
D D	0.802	0.291	7.596	2.230	1.261	0.3945	0.006
GRACE $\hat{\beta}$	0.880	0.241	13.322	2.410	1.503	0.3865	<0.001

2.5 NT pro BNP $\propto$ D ψ GRACE $\tilde{u}$
 $\sim \Theta^d$
 ω Υ MACE δ $\mathbf{x}$ $\mathbf{z}$
NT pro BNP $\propto$ D ψ GRACE $\tilde{u}$ δ $\mathbf{z}$

I W Logistic						Logit P =
1.164X1+0.802X2+0.880X3						
NT pro BNP	+D D	+GRACE				NT pro
BNP	D D	GRACE				MACE
AUC	0.854	0.832	0.796			AUC 0.981
AUC	0.75	=	AUC	=2.961	3.460	3.920 P=
0.003	0.001	0.000		5.3e-16		

5	NT pro BNP D D		GRACE		
	AUC	95% CI			d
NT pro BNP	0.854	0.775~0.913	0.807	0.815	350.76 pg/mL
D D	0.832	0.750~0.896	0.645	0.926	244.07 µg/L
GRACE ũ	0.796	0.710~0.866	0.613	0.926	119 ũ
'	0.981	0.935~0.997	0.968	0.914	

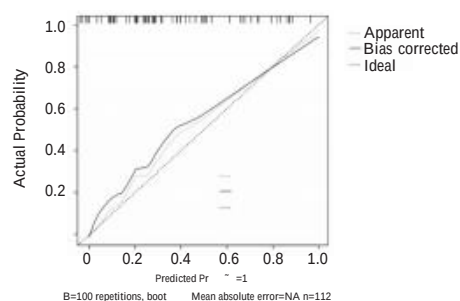


2.6 $\hat{\epsilon}$

Bootstrap 100 $\hat{\epsilon}$ $\hat{\gamma}_A$

$c^2=1.775$ δ 8 Hosmer Lemeshow χ^2 F

0.842 $\hat{h}$ δ 4.26 $\hat{\gamma}_B$ $\hat{\gamma}_C$



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sVCAM 1 HMGB1

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E mail hebeijizhouglx@163.com

MB heart type fatty acid binding protein H FABP brain natriuretic peptide BNP and adverse reactions during treatment were compared between the two groups. Results After 3 months of treatment the total effective rate in group B was higher than that in group A and the difference was statistically significant $P<0.05$. After 3 months of treatment the total effective rate of group B was higher than that of group A and the difference was statistically significant $P<0.05$. After 3 months of treatment LVEF in group B was higher than that in group A. LVEDD LVESD angina pectoris attack frequency levels of serum CRP SAA IL 6 cTnI creatine kinase isoenzyme H FABP BNP tPAI 1 sVCAM 1 and HMGB1 were lower in group B than in group A. The duration of angina pectoris was also shorter in group B. These differences were all statistically significant $P<0.05$. The duration of angina pectoris was significantly shorter in group B compared to group A and the difference was statistically significant $P<0$.

		5		n	
$\dot{\alpha}$	n	χ^2	χ^2	χ^2	χ^2
A	51	1 1.96	2 3.92	1 1.96	4 7.84
B	51	2 3.92	2 3.92	1 1.96	5 9.80
C^2 ^d					0.000 ^b
P ^d					1.000

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HPV

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ũ γ iR29 3-iR203 - m*	m ψ ~ ã	Kaplan-Meier		ũ	
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iR203 - HJLb m	σ P<0.05 ̢ iR29 H-	3 iR203 H-		m	
≥4 cm3FIGO ũ δ 3	3HJ ũ % █	Lb iR29 - 3 iR203 -		m	
	σ P<0.05 ̢	2024 6 30 HPV		1 δ	
77.78% ° ≥4 cm3FIGO ũ δ 3	3HJ ũ % 3 iR29 H-	3 iR203 H-		m	
HJLb <4 cm3FIGO ũ δ ~ 3	3X ũ % 3 iR29 -			m	
3 iR203 - m	σ P<0.05 ̢ Kaplan-Meier	iR29 3-iR203 - m		m	
H HPV	HJLb iR29 3-iR203 - m m	σ			
P<0.05 ̢ HPV	γ iR29 3-iR203 - m °	iR29 3-iR203 H- m		m	
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Relationship between peripheral blood *miR - 29a* and *miR - 203* and clinicopathological features and prognosis in HPV infected cervical cancer patients

SONG Hongxia HAN Fengxia HE Chenyun LU Yun JIA Meiqun

Obstetrics and Gynecology Department of Nantong Cancer Hospital Nantong Jiangsu China 226361

ABSTRACT Objective To explore the effectiveness of

H2023081

226361

E mail 2641940094@qq.com

stage lymph node metastasis and low differentiation compared to those with high expression and these differences were statistically significant $P<0.05$. The 1 year overall survival rate for HPV infected cervical cancer was 77.78% as of June 30 2024. Patients with a tumor diameter of $\geq 4\text{cm}$ FIGO stage lymph node metastasis low differentiation low expression of *iR 29* and low expression of *iR 203* had lower survival rates compared to those with tumor diameter of $<4\text{ cm}$ FIGO stage ~ no lymph node metastasis moderate to high differentiation high expression of *iR 29* and high expression of *iR 203* and the difference was statistically significant $P<0.05$. Kaplan Meier survival curves demonstrated that tpatients with low expression of *iR 29* and *iR 203* had significantly lower overall survival rates compared to those with high expression of *iR 29* and *iR 203* $P<0.05$. Conclusion Peripheral blood *iR 29* and *iR 203* were found to be down regulated in HPV infected cervical cancer patients. The low expression of *iR 29* and *iR 203* was as closely associated with clinicopathological features and prognosis in these patients. These miRNAs could serve as potential predictors for assessing the progression and prognosis of HPV infected cervical cancer patients.

KEY WORDS Human papillomavirus Cervical cancer *iR 29* -*iR 203* - m m

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0.441 and $iR17 = 0.424$ and negatively with MOTS c $= 0.457$ all $P < 0.05$. Conclusion RLP C MOTS c and $iR17$ are abnormally expressed in coronary heart disease patients and they correlate with coronary lesion severity. These markers may serve as auxiliary indicators for assessing the severity of lesions.

KEY WORDS Coronary heart disease Coronary artery lesions Remnant lipoprotein cholesterol Mitochondrial derived peptide MOTS c MicroRNA 17

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gram positive bacteria accounting for 33.33%, mainly *Staphylococcus aureus* and 42 strains of gram negative bacteria accounting for 63.64% mainly *Klebsiella pneumoniae*. Gram negative bacteria *Klebsiella pneumoniae* were mainly resistant to ceftriaxone, gentamicin and cefotaxime and the resistance rate was $\geq 50.00\%$.

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DKD mTOR DKD
 180 90 90 2 1
 eGFR UAER C Cys C HbA1c 2
 2hPG FBG mTOR PI3K mRNA AKT mRNA NF B mRNA AGR7
 mRNA B c i l mRNA LC3 mRNA H₂O₂ f Lb
 σ P<0.05 σ P>0.05 HbA_{1c} 2hPG FBG H₂O₂ σ P<0.05
 PI3K/PI3K AKT/AKT TOR TOR p H₂O₂ m m σ P<0.05
 ATG7 B c i l LC3 Lb h E k H₂O₂ mTOR σ
 H₂O₂ M σ
 mTOR σ

The effects of resistance and aerobic exercise rehabilitation on renal function and autophagy levels in patients with diabetic nephropathy

LI Yihui SU Dan LI Jiezheng ZHANG Min

Department of Traditional Chinese Medicine the First Affiliated Hospital of Xinjiang Medical University Urumqi Xinjiang China 830054

ABSTRACT Objective To explore the effects of resistance and aerobic exercise rehabilitation on renal function and related indicators of the mTOR pathway and autophagy level in patients with diabetic nephropathy DKD . Methods A total of 180 patients diagnosed with DKD at the First Affiliated Hospital of Xinjiang Medical University from January 2023 to January 2024 were selected and randomly divided into two groups the control group 90 cases and the observation group 90 cases . The control group received conventional nursing and basic health education while the observation group was given resistance and aerobic exercise rehabilitation training on this basis for continuous treatment for 2 months. The therapeutic effects renal functions glomerular filtration rate eGFR urinary albumin excretion rate UAER and cystatin C Cys C blood glucose levels glycated hemoglobin HbA1c 2 hour postprandial blood glucose 2hPG and fasting blood glucose level FBG and mTOR pathway were compared between the two groups of patients. Indicators related to PI3K mRNA AKT mRNA NF B mRNA and autophagy levels AGR7 mRNA B c i l mRNA LC3 mRNA were analyzed. Results Compared to the control arm the intervention arm demonstrated a significantly better therapeutic response P<0.05 . Post treatment serum cystatin C and urinary albumin excretion rates were markedly lower in the intervention arm compared to the control arm P<0.05 . Conversely estimated glomerular filtration rates did not differ between the arms P>0.05 . Glycemic control indices HbA1c 2hPG and FBG were all lower in the intervention arm P<0.05 . Furthermore the phosphorylated to total protein ratios of PI3K AKT and TOR were significantly down regulated while the autophagy related proteins ATG7 B c i l and LC3 were up regulated in the intervention arm all P<0.05 . Conclusion Resistance and aerobic exercise reha

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E mail 2442593680@qq.com

bilitation training can effectively control the blood glucose levels of patients with DKD. This helps alleviate renal injury reduce the activity of the mTOR signaling pathway and increase the level of autophagy. These ef

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AGR7 mRNA B ci 1 mRNA LC3 mRNA

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SPSS 26.0 ψ σ $P < 0.05$

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σ $P < 0.05$ σ $P < 0.05$

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σ	90	29 32.22 51 56.67 10 11.11 80 88.89
σ		9.832
σ		0.002

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Diagnostic value of contrast enhanced ultrasound combined with MMP 9 and CK19 in
puncture biopsy tissues in SLN metastasis of breast cancer

XU Xin¹ ZHANG Yu² YANG Le³

1. Tangshan Hongci Hospital Department of Radiology Tangshan Hebei China 063000 2. Tangshan Central Hospital Department of Ultrasound Tangshan Hebei China 063000 3. Kailuan Mental Health Center Department of Radiology Tangshan Hebei China 063000

ABSTRACT Objective To explore the diagnostic value of contrast enhanced ultrasound CEUS combined with matrix metalloproteinase MMP

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	A					Kappa
CEUS	90.14	88.61	89.33	87.67	90.91	0.786
MMP 9	85.92	81.10	83.33	80.26	86.49	
CK 19	81.69	84.81	83.33	82.86	83.75	
CD 31	95.77	93.67	94.67	93.15	96.10	

JAK2/STAT3 EKR5

[illegible]

Efficacy of ulinastatin adjuvant therapy for lung infection after chemotherapy in lung cancer patients and its effect on JAK2/STAT3 and EKR5 pathways

ZHANG Zixiang¹ WANG Xiangyu² ZHU Yin¹

1. Bozhou Second Hospital of Chinese Medicine Mengcheng county Hospital of Chinese Medicine Bozhou Anhui China 233500 2. The Second People s Hospital of Mengcheng County Bozhou Anhui China 233500

ABSTRACT **Objective** To investigate the efficacy of ulinastatin in the adjuvant treatment of pulmonary infection after chemotherapy of lung cancer patients and its effect on Janus kinase 2 JAK2 /Signal transduction and transcriptional activator 3 STAT3 and extracellular regulated kinase 5 ERK5 pathways. **Methods** 150 lung cancer patients with pulmonary infection after chemotherapy were selected from January 2022 to December 2023. They were divided into the ulinastatin group receiving ulinastatin adjuvant treatment $n=72$ and the control group $n=78$ and were treated for 14 days. The duration of fever cough sputum and pulmonary rales were observed. Before and after treatment arterial oxygen saturation SpO_2 arterial partial pressure of oxygen PaO_2 arterial partial pressure of carbon dioxide $PaCO_2$ serum contents of soluble CD163 sCD163 soluble myeloid cell trigger receptor 1 sTREM 1 and hypersensitive C reactive protein hsCRP the mRNA expression levels of JAK2 STAT3 inducible nitric oxide synthase iNOS and ERK5 were

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α	n	d	χ^2/d	χ^2
$\varphi \sim \bar{e}$	72	3.71 ± 0.64	7.72 ± 1.04	5.85 ± 0.81
	78	4.50 ± 0.71	9.81 ± 1.25	7.24 ± 0.98
d	t	7.137	11.081	9.425
P^d		<0.001	<0.001	<0.001

2.2 N Ů Ů H $\sigma P<0.05$ $\varphi \sim \tilde{e}$
 Ů N $\text{SaO}_2 \text{ PaO}_2 \text{ PaCO}_2$ sCD16 $\text{ TREM } 1$ hs CRP H/L
 $\sigma P>0.05$ $\sim$ N $\text{SaO}_2 \text{ PaO}_2$ $\sigma P<0.05$ φ φ
 $\tilde{e}$ Ů PaCO_2 $\tilde{e}$ Ů H 2.4 N Ů φ JAK2/STAT3
 $\sigma P<0.05$ $\varphi \sim \tilde{e}$ $\text{SaO}_2 \text{ PaO}_2$ Ů N φ JAK2 $\text{ STAT3 } \text{ NLRP3}$
 Ль PaCO_2 H/L $\sigma P<$ mRNA $\sigma P>0.05$
 0.05 φ 2 $\sim$ N φ JAK2 $\text{ STAT3 } \text{ NLRP3}$ mRNA
 2.3 N Ů PaCO_2 $\sigma P<0.05$
 Ů N sCD16 $\text{ TREM } 1$ hs CRP $\varphi \sim \tilde{e}$ φ JAK2 $\text{ STAT3 } \text{ NLRP3}$ mRNA
 $\sigma P>0.05$ $\sim$ N H/L $\sigma P<0.05$ φ
 sCD16 $\text{ TREM } 1$ hs CRP $\tilde{e}$ Ů 4 $\sigma P<0.05$ φ

2

Ů	n	SaO ₂ %		PaO ₂ mmHg		PaCO ₂ mmHg	
		Ů	$\sim$	Ů	$\sim$	Ů	$\sim$
$\varphi \sim \tilde{e}$	72	0.88±0.06	0.98±0.07 ^a	60.41±5.58	91.32±8.32 ^a	58.59±4.42	36.03±3.24 ^a
	78	0.87±0.05	0.93±0.06 ^a	60.84±5.24	83.51±7.79 ^a	59.11±4.71	44.41±3.95 ^a
$\tilde{d}$ t		1.112	4.708	0.487	5.937	0.696	14.155
P^d		0.268	<0.001	0.627	<0.001	0.488	<0.001

* Ů ^a $P<0.05$ φ

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Ů	n	sCD16 pg/mL		sTREM 1 pg/mL		hs CRP	
		Ů	$\sim$	Ů	$\sim$	Ů	$\sim$
$\varphi \sim \tilde{e}$	72	157.61±18.58	118.57±16.57 ^a	43.82±5.69	20.13±2.68 ^a	33.28±6.38	3.58±0.62 ^a
	78	160.32±20.47	137.47±18.62 ^a	44.13±6.04	28.59±3.04 ^a	31.95±7.71	7.76±0.95 ^a
$\tilde{d}$ t		0.842	6.545	0.219	18.018	1.146	31.628
P^d		0.401	<0.001	0.827	<0.001	0.254	<0.001

* Ů ^a $P<0.05$ φ

4 JAK2/STAT3

Ů	n	JAK2		STAT3		NLRP3	
		Ů	$\sim$	Ů	$\sim$	Ů	$\sim$
$\varphi \sim \tilde{e}$	72	1.04±0.13	0.68±0.08 ^a	0.98±0.10	0.64±0.07 ^a	1.03±0.12	0.61±0.08 ^a
	78	1.00±0.15	0.85±0.11 ^a	1.00±0.13	0.88±0.11 ^a	1.00±0.13	0.79±0.10 ^a
$\tilde{d}$ t		1.739	10.749	1.050	15.893	1.465	12.109
P^d		0.085	<0.001	0.296	<0.001	0.145	<0.001

* Ů ^a $P<0.05$ φ

2.5 N Ů ERK5 3
 Ů N φ ERK5 iNOS mRNA
 $\sigma P>0.05$ $\sim$ N φ φ τ φ Ů φ
 ERK5 iNOS mRNA $\tilde{e}$ Ů H δ φ φ φ φ φ φ
 $\sigma P<0.05$ $\varphi \sim \tilde{e}$ φ ERK5 φ φ φ φ φ φ φ φ φ
 iNOS mRNA H/L σ φ φ φ φ φ φ φ φ φ
 $P<0.05$ φ 5 φ φ φ φ φ φ φ φ φ

5 ERK5

Ů	n	ERK5		iNOS	
		Ů	$\sim$	Ů	$\sim$
$\varphi \sim \tilde{e}$	72	1.02±0.14	0.59±0.07 ^a	0.96±0.14	0.67±0.08 ^a
	78	1.00±0.11	0.78±0.12 ^a	1.00±0.12	0.82±0.12 ^a
$\tilde{d}$ t		0.977	11.718	1.883	8.931
P^d		0.330	<0.001	0.062	<0.001

* Ů ^a $P<0.05$ φ

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TIM 3 MMP 2 Presepsin

STB T X ů 3 TIM 3 3

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2023 6 2025 6 160 3 STB 3 TIM 3 3

=102 n =58 n 90 3 TIM 3 3

ELISA TIM 3 MMP 2 ů Presepsin Logistic 3 TIM 3 3

ROC ů TIM 3 MMP 2 ů Presepsin STB 3 TIM 3 3

TIM 3 MMP 2 ů Presepsin 3 TIM 3 3

$\sigma P<0.05$ 3 TIM 3 3

$\sigma P<0.05$ 3 TIM 3 3

TIM 3 MMP 2 ů Presepsin 3 TIM 3 3

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Changes in serum TIM 3 MMP 2 and presepsin levels and their relationship with prog
nosis in patients with spinal tuberculosis

SHEN Hongbo YE Qiang MA Yinglong

Department of Laboratory Medicine the Fourth People s Hospital of Ningxia Hui Autonomous Region
Ningxia Hui Autonomous Region 750001

ABSTRACT Objective To investigate the changes in serum T cell immunoglobulin and mucin do
main 3 TIM 3 matrix metalloproteinase 2 MMP 2 and soluble CD14 subtype presepsin levels and
their relationship with prognosis in patients with spinal tuberculosis STB . Methods A total of 160 STB pa
tients admitted to the Fourth People s Hospital of Ningxia Hui Autonomous Region from June 2023 to June 2025
were selected for the study. Based on their prognosis they were divided into a good prognosis group =102 n
and a poor prognosis group =58 . Additionally 90 volunteers who underwent health examinations at our hos
pital during the same period were chosen as the control group. Serum levels of TIM 3 MMP 2 and presepsin
were measured using enzyme linked immunosorbent assay ELISA . Logistic regression analysis was conducted
to identify the risk factors associated with poor prognosis in STB patients. The diagnostic value of serum TIM 3
MMP 2 and presepsin for poor prognosis in STB was evaluated through receiver operating characteristic
ROC curve analysis. Results Serum levels of TIM 3 MMP 2 and presepsin in the study group were sig
nificantly higher than those in the control group and the levels of these indicators in the poor prognosis group
were significantly higher than those in the good prognosis group $P<0.05$. The poor prognosis group also exhib
ited higher pain scores and erythrocyte sedimentation rate ESR compared to the good prognosis group $P<$
0.05 . Logistic regression analysis identified high pain score elevated ESR and increased serum levels of
TIM 3 MMP 2 and presepsin as independent risk factors for poor prognosis in STB patients $P<0.05$. ROC

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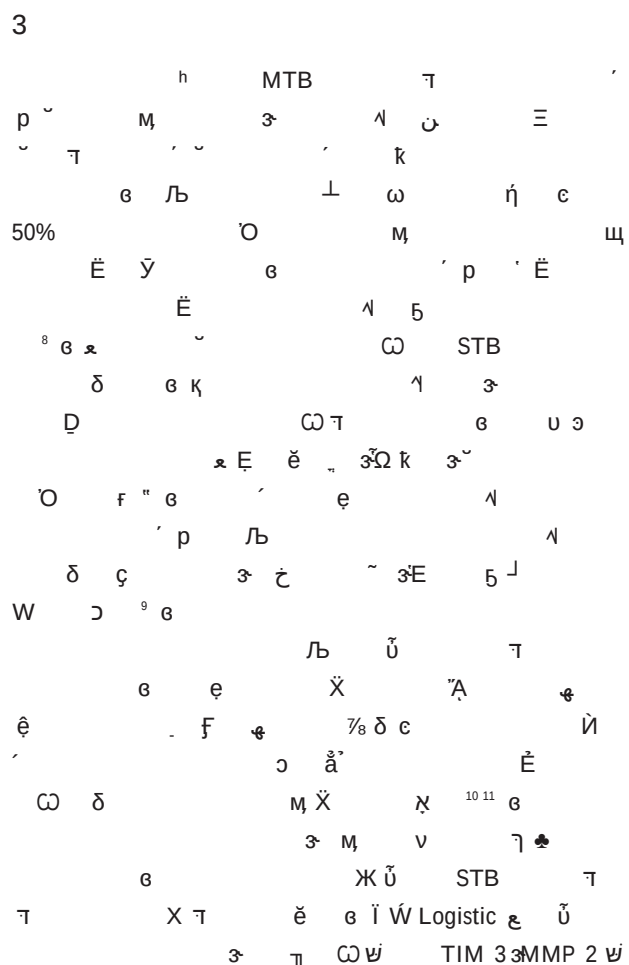
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KEY WORDS Spinal tuberculosis T cell immunoglobulin and mucin domain 3 Matrix metalloproteinase 2 Soluble CD14 subtype prognosis

2		STB					
		$\sim$ =102	n	$\sim$ =58	n	Ic^2 d	P d
$\dot{\alpha}$	%					0.043	0.836
M	kg/m ²	58	56.86	32	55.17		
		44	43.13	26	44.83		
		56.53±3.86		56.21±4.52		0.473	0.637
		22.26±1.86		22.44±1.61		0.617	0.538
		11.65±1.77		11.20±1.96		1.486	0.139
σ	%					0.946	0.623
L1	S1	44	43.13	22	37.93		
T2	L1	35	34.31	19	32.76		
C2	T1	23	22.55	17	29.31		
	$\tilde{U}$					6.412	0.011
≤ 4		82	80.39	36	62.07		
> 4		20	19.61	22	37.93		
	%					0.003	0.958
		77	75.49	44	75.86		
$\ddot{O}$	$\ddot{O}$	25	24.51	14	24.14		
	%					0.280	0.869
		76	74.51	41	70.69		
	$\dot{I}$	15	14.71	10	17.24		
	$\dot{I}$	11	10.78	7	12.07		
H	%					0.636	0.425
≤ 1		79	77.45	48	82.76		
> 1		23	22.55	10	17.24		
$\clubsuit$	%					0.000	0.988
		21	20.59	12	20.69		
		81	79.41	46	79.31		
	$\times 10^9/L$	6.48±1.20		6.54±1.64		0.244	0.808
	mm/h	26.21±2.83		30.72±2.49		10.111	0.000
	g/L	31.77±5.40		32.05±5.65		0.310	0.757

3 STB						
<i>z</i>	<i>d</i>	SE <i>d</i>	Wald χ^2 <i>d</i>	<i>OR</i> <i>d</i>	95% <i>CI</i>	<i>P</i> <i>d</i>
	0.583	0.147	15.728	1.792	1.343–2.391	0.000
	1.274	0.285	19.996	3.575	2.044–6.254	0.000
TIM 3	0.846	0.194	19.008	2.330	1.593–3.407	0.000
MMP 2	0.719	0.168	18.314	2.053	1.478–2.851	0.000
Presepsin	0.957	0.205	21.785	2.604	1.742–3.891	0.000

4	TIM 3	MMP 2	Presepsin	STB		
	d	AUC		95% CI		
TIM 3	9.17 ng/mL	0.865	88.79	80.23	0.690	0.813~0.917
MMP 2	32.76 pg/mL	0.826	85.10	80.02	0.651	0.759~0.892
Presepsin	385.19 pg/mL	0.871	88.93	85.47	0.744	0.820~0.922
		0.913	92.26	89.12	0.814	0.872~0.953



TGF β 2 ANGPTL4 HIF 1 α

ANGPTL4 12 350 268 ANGPTL4 HIF 1α VEGF IL 6 ROC TGF β ANGPTL4 HIF 1α VEGF IL 6

23.43% P<0.05 P<0.05 0.935

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E mail langzhang644977@163.com

the edema group with these differences being statistically significant $P<0.05$. The levels of TGF β ANGPTL4 HIF 1α VEGF and IL 6 in the corneal edema group were statistically significantly higher than those in the non edema group $P<0.05$. A higher hardness of the lens nucleus diabetes mellitus intraoperative vitreous extravasation and higher levels of TGF β 2 ANGPTL4 HIF 1α VEGF and IL 6 in the aqueous humor are all identified as risk factors for corneal edema after cataract surgery. Conversely a greater anterior chamber depth serves as a protective factor. Conclusion The increased levels of TGF β 2 ANGPTL4 and HIF 1α in the aqueous humor are risk factors for corneal edema after cataract surgery. They also have predictive value for the occurrence of corneal edema post cataract surgery.

KEY WORDS Cataract surgery Corneal edema TGF β 2 ANGPTL4 HIF 1α

Abstract
Background
Corneal edema is a common complication after cataract surgery. The aim of this study was to investigate the levels of TGF β 2, ANGPTL4, HIF 1α , VEGF, and IL 6 in the aqueous humor of patients with corneal edema after cataract surgery. Methods A total of 100 patients who underwent cataract surgery were divided into two groups: non-edema group (n=50) and edema group (n=50). The levels of TGF β 2, ANGPTL4, HIF 1α , VEGF, and IL 6 in the aqueous humor were measured. Results The levels of TGF β 2, ANGPTL4, HIF 1α , VEGF, and IL 6 in the edema group were significantly higher than those in the non-edema group ($P<0.05$). Conclusion The increased levels of TGF β 2, ANGPTL4, and HIF 1α in the aqueous humor are risk factors for corneal edema after cataract surgery. They also have predictive value for the occurrence of corneal edema post cataract surgery.

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1.1

Abstract
Background
Corneal edema is a common complication after cataract surgery. The aim of this study was to investigate the levels of TGF β 2, ANGPTL4, HIF 1α , VEGF, and IL 6 in the aqueous humor of patients with corneal edema after cataract surgery. Methods A total of 100 patients who underwent cataract surgery were divided into two groups: non-edema group (n=50) and edema group (n=50). The levels of TGF β 2, ANGPTL4, HIF 1α , VEGF, and IL 6 in the aqueous humor were measured. Results The levels of TGF β 2, ANGPTL4, HIF 1α , VEGF, and IL 6 in the edema group were significantly higher than those in the non-edema group ($P<0.05$). Conclusion The increased levels of TGF β 2, ANGPTL4, and HIF 1α in the aqueous humor are risk factors for corneal edema after cataract surgery. They also have predictive value for the occurrence of corneal edema post cataract surgery.

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	4	GDF 15	Trx1	MYO	NT proBNP	AMI		
	$\bar{y}$	^d		AUC	95% <i>CI</i>		<i>P</i> ^d	
GDF 15 ng·mL ⁻¹	1.175			0.771	0.704–0.837	0.653	0.673	<0.001
Trx1 ng·mL ⁻¹	16.529			0.885	0.841–0.930	0.786	0.776	<0.001
MYO pg·mL ⁻¹	70.540			0.813	0.754–0.872	0.735	0.724	<0.001
NT proBNP ng·mL ⁻¹	1.165			0.713	0.642–0.784	0.622	0.653	<0.001
				0.962	0.939–0.985	0.929	0.898	<0.001

- 1 2024 44 2 263 265. 24h ~ 2023 15 10 1812 1815.
- 2 Tania M Durrant, Dominique C Nathalie M et al. Thiorodan and its mimetic peptide improve systolic cardiac function and remodeling after myocardial infarction. J .FASEB J official publication of the Federation

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α	n	α		d		m ₁	kg/m ²		
C ² / d	60	32	53.33	28	46.67	61.53±1.85	8.22±0.98	23.98±2.57	
	60	40	66.67	20	33.33	61.24±1.15	8.11±0.38	24.01±3.91	
P ^d	t		2.222			1.031	0.811	0.050	
			0.136			0.305	0.419	0.961	

Chinese Behavioural Inattention Test
 Hong Kong Version CBIT HK
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 Catherine Boggs Scale
 CBS
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 Cerebral blood flow CBF
 Cerebral blood volume CBV
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	3			n		
	n		n		n	
	60	2 3.33	2 3.33	1 1.67	1 1.67	6 10.00
	60	1 1.67	1 1.67	0 0.00	0 0.00	2 3.33
χ^2						1.205
P						0.272

	4			n		
	n		n		n	
	60	136.48±12.76	196.40±11.70 ^a	17.40±2.66	5.16±1.67 ^a	
	60	135.71±12.90	185.69±14.96 ^a	18.03±1.95	6.76±2.14 ^a	
t	0.329		4.368	1.480	4.566	
P	0.743		<0.001	0.142	<0.001	
χ^2						^a $P<0.05$

2.2 N
 10.00% vs 3.33%
 σ $P>0.05$
 2.3 N
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 $P<0.05$
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 CBF
 $P<0.05$
 2.5 N
 GAP 43 HT Pannexin1
 $P<0.05$

	2			n		
	n		n		n	
	60	18 30.00	21 35.00	15 25.00	6 10.00	54 90.00
	60	15 25.00	14 23.33	16 26.67	15 25.00	45 75.00
χ^2						4.675
P						0.031

	5			n		
	n		n		n	
	60	50.11±4.67	75.83±6.12 ^a	60.74±4.82	96.87±6.47 ^a	80.70±6.87
	60	50.77±4.28	62.54±5.94 ^a	60.50±4.91	82.54±5.86 ^a	80.81±6.29
t	0.807		12.070	0.270	12.716	0.092
P	0.421		<0.001	0.788	<0.001	0.927
χ^2						^a $P<0.05$

	6			n		
	n		n		n	
	60	242.87±20.51	588.84±30.27 ^a	89.31±9.20	116.96±10.23 ^a	6.15±0.35
	60	247.62±21.11	467.29±26.79 ^a	90.63±9.42	109.18±9.40 ^a	6.07±0.21
t	1.250		23.292	0.777	4.338	1.518
P	0.214		<0.001	0.439	<0.001	0.132
χ^2						^a $P<0.05$

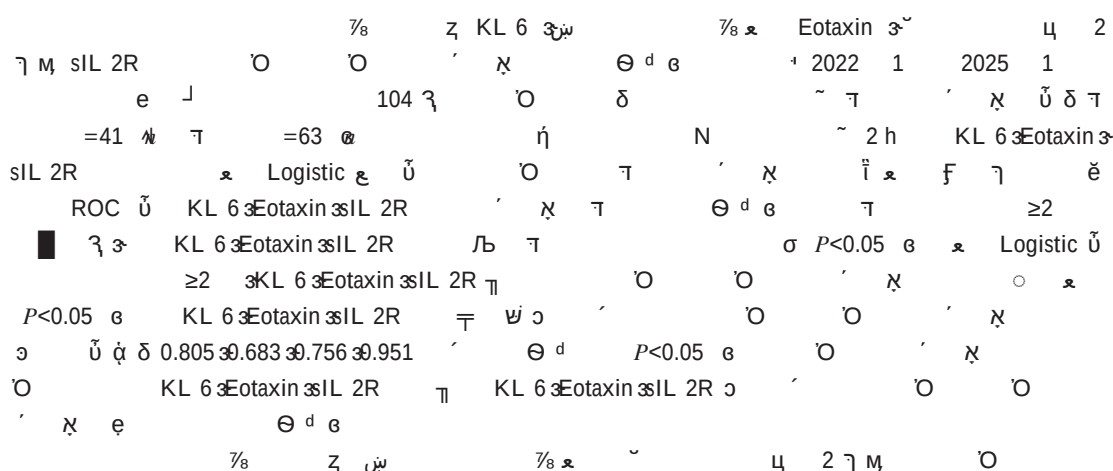
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KL 6 Eotaxin sIL 2R



The predictive value of KL 6 eotaxin and sIL 2R for adverse reactions of blood transfusion in patients with acute massive hemorrhage

WANG Pin ZHOU Yanzhou WANG Kun NI Qinyi GONG Tianjiao

Laboratory Department Xishan People s Hospital Wuxi Jiangsu China 214000

ABSTRACT Objective To investigate the predictive value of Krebs von den Lungen 6 KL 6 eotaxin and soluble interleukin 2 receptor sIL 2R for adverse reactions of blood transfusion in patients with acute massive hemorrhage. Methods A total of 104 patients with acute massive hemorrhage admitted to the Department of Blood Transfusion at Xishan People s Hospital in Wuxi from January 2022 to January 2025 were selected as the research subjects. They were divided into two groups based on the occurrence of adverse reactions to blood transfusion the occurrence group =41 and the non occurrence group =63 . Clinical data for all patients were collected and the serum levels of KL 6 eotaxin and sIL 2R at 2 hours after blood transfusion were compared between the two groups. Multivariate logistic regression was used to analyze the influencing factors of adverse reactions of blood transfusion in patients with acute massive hemorrhage. Receiver operating characteristic ROC curves were used to analyze the predictive value of KL 6 eotaxin and sIL 2R for the occurrence of adverse transfusion reactions. Results The proportion of patients who received blood transfusion ≥ 2 times and serum KL 6 eotaxin and sIL 2R levels in patients with acute massive hemorrhage in the occurrence group were higher than those in the non occurrence group $P<0.05$. Multivariate logistic analysis showed that received two or more blood transfusions increased levels of KL 6 eotaxin and sIL 2R were independent risk factors for adverse transfusion reactions in patients with acute massive hemorrhage $P<0.05$. The area under the curve for serum levels of KL 6 eotaxin and sIL 2R alone and in combination to predict adverse transfusion reactions in patients with acute massive hemorrhage were 0.805 0.683 0.756 and 0.951 respectively and the combined prediction value was significantly higher $P<0.05$. Conclusion The levels of serum KL 6 eotaxin and sIL 2R were independent risk factors for adverse transfusion reactions in patients with acute massive hemorrhage $P<0.05$. The area under the curve for serum levels of KL 6 eotaxin and sIL 2R alone and in combination to predict adverse transfusion reactions in patients with acute massive hemorrhage were 0.805 0.683 0.756 and 0.951 respectively and the combined prediction value was significantly higher $P<0.05$.

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E mail zyz200611@163.com

taxin and sIL-2R increase in patients with acute massive hemorrhage who experience adverse transfusion reactions. The combination of KL-6, eotaxin and sIL-2R demonstrates a high predictive value for adverse transfusion reactions.

KEY WORDS KL 6 Eotaxin sIL 2R Acute massive bleeding

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CGRP CXCR2 sICAM 1

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Fisher grade 3~4 surgical timing ≥ 72 h Hunt Hess grade ~ and intracranial hemorrhage volume ≥ 30 mL in the CVS group were higher $P<0.05$. Compared to the non CVS group the serum level of CGRP was lower in the CVS group and the serum levels of CXCR2 and sICAM 1 were higher in the CVS group $P<0.05$. The results of multivariate logistic analysis showed that the operation timing ≥ 72 h Hunt Hess grade ~ intracranial hemorrhage volume ≥ 30 mL elevated serum levels of CXCR2 and serum levels of sICAM 1 were risk factors for CVS in RIA patients after surgery and elevated serum level of CGRP was a protective factor for CVS in RIA patients after surgery $P<0.05$. The ROC curve was drawn to analyze the predictive value of CGRP CXCR2 and sICAM 1 alone and in combination for CVS in RIA patients after surgery the area under the curve AUC of the combined detection was the highest $P<0.05$ with a sensitivity of 80.77% and a specificity of 89.80%. Conclusion The situation of CVS in RIA patients after surgery was still not optimistic and there were many risk factors combined detection of serum levels of CGRP CXCR2 and sICAM 1 could improve the predictive value for CVS in RIA patients after surgery.

KEY WORDS Ruptured intracranial aneurysm Cerebral vasospasm Calcitonin gene related peptide CXC chemokine receptor 2 Soluble intercellular adhesion molecule 1

ruptured intracranial aneurysm RIA
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 brain vasospasm CVS
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E mail hdz1489@163.com

cardiovascular events in the observation group was lower than that in the control group the difference was statistically significant $P<0.05$. Conclusion Enhanced external counterpulsation therapy improves myocardial injury and cardiac function in cases of non obstructive coronary myocardial infarction. It also regulates endocan 1 and vaspin levels leading to improved endothelial function.

KEY WORDS Myocardial infarction with non obstructive coronary arteries Enhanced external counterpulsation Endocan 1 Vaspin Endothelial function

[illegible]

		1		cTnI CK MB CK		=48	
		cTnI ng/mL		CK MB		CK	
		$\bar{x}$	$\sim 4 \eta$	$\bar{x}$	$\sim 4 \eta$	$\bar{x}$	$\sim 4 \eta$
		11.62±2.52	0.55±0.06 ^a	53.52±9.94	16.52±1.98 ^a	859.18±165.42	165.92±24.14 ^a
		11.09±2.78	0.89±0.10 ^a	54.71±9.15	19.34±2.44 ^a	870.24±191.54	192.14±31.59 ^a
^d	<i>t</i>	0.979	10.834	0.610	4.197	0.302	3.649
<i>P</i> ^d		0.330	<0.001	0.543	<0.001	0.763	<0.001

^a $\bar{x}$ ^a*P*<0.05 $\bar{x}$

2.2 N α
N $\tilde{\omega}$ α LVEF α LVESV α LVEDV
 σ $P > 0.05$ ~ 4 γ
LVEF β LVESV α LVEDV β β
 σ $P < 0.05$ β 2β

2.3 N endocan 1 γ vaspin
N $\tilde{\omega}$ endocan 1 γ vaspin
 σ $P > 0.05$ ~ 4 γ endo
can 1 β β vaspin β
 σ $P < 0.05$ β 3β

2.4 N $\hat{\epsilon}$

N $\hat{\psi}$ FMD

$P > 0.05$ ~ 4 % FMD 7%

σ $P < 0.05$ 6% 4%

2.5 N I ψ

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		2	LVEF	LVESV	LVEDV	48	7
ğ	LVEF %		LVESV mL		LVEDV mL		
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		40.39±4.25	50.44±5.59 ^a	116.61±10.93	93.51±8.59 ^a	142.85±12.77	103.21±10.85 ^a
		41.03±3.94	47.04±5.14 ^a	114.95±9.74	97.62±7.76 ^a	140.91±11.85	112.62±9.41 ^a
^d	<i>t</i>	0.765	3.102	0.777	2.460	0.811	4.631
<i>P</i>	^d	0.446	0.003	0.439	0.016	0.419	<0.001
^a	ğ	^a <i>P</i> <0.05 8					

3	endocan 1		vaspin		ng/mL =48	n
α	endocan 1		vaspin		α	n
	α	~ 4 γ	α	~ 4 γ		
d	2.95±0.46	2.04±0.32 ^a	1.05±0.16	1.72±0.26 ^a	d	n
	2.88±0.51	2.51±0.37 ^a	1.10±0.18	1.39±0.22 ^a		
t	0.706	6.657	1.438	6.813	t	n
P d	0.482	<0.001	0.154	<0.001	P d	n

4		FMD	48
ḡ		FMD	
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		6.42±0.61	8.11±0.89 ^a
		6.35±0.67	6.51±0.71
d	t	0.535	9.737
P	d	0.594	<0.001
^a	ḡ	^a P<0.05	

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MMP 2 sST2

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MMP 2 sST2 1 Logistic

ROC 1 37

LAAEV LAD LAV LVEDD LVESD IVSTd LVEF

LAAEV LAD LAV MMP 2 sST2

MMP 2 sST2 1 ROC 0.838

0.688 0.694 0.666 0.718 0.667 0.669 $P < 0.05$

MMP 2 sST2

Clinical evaluation value of echocardiogram combined with peripheral blood MMP 2 and sST2 in recurrence of atrial fibrillation after catheter ablation

ZHOU Xiaojuan CHE Deqing QIAN Jingjiao

Ultrasound Department of Kunshan Integrated Traditional Chinese and Western Medicine Hospital Suzhou Jiangsu China 215300

ABSTRACT Objective To investigate the evaluation value of echocardiogram combined with peripheral blood matrix metalloproteinase 2 (MMP 2) and soluble suppression of tumorigenicity 2 (sST2) in recurrence of atrial fibrillation after catheter ablation. Methods A total of 138 patients with atrial fibrillation who underwent catheter ablation at Kunshan Integrated Traditional Chinese and Western Medicine Hospital were enrolled between January 2020 and March 2024. One day before surgery echocardiogram indexes including left atrial appendage ejection velocity (LAAEV), left atrial diameter/volume (LAD LAV), left ventricular end diastolic/systolic diameter (LVEDD LVESD), interventricular septum end diastolic thickness (IVSTd), left ventricular ejection fraction (LVEF) and the ratio of mitral valve blood flow E peak to annular motion E peak (E/E) were measured. Peripheral blood levels of MMP 2 and sST2 were also assessed. Based on the recurrence of atrial fibrillation during the one year postoperative follow up, patients were divided into a recurrence group and a non-recurrence group. The risk factors of postoperative recurrence were analyzed using logistic regression analysis. Receiver operating characteristic (ROC) curves were then used to evaluate the predictive efficiency of combined detection methods. Results During 1 year of postoperative follow up, there were 37 cases of atrial fibrillation recurrence. The LAAEV in the recurrence group was significantly higher than that in the non-recurrence group ($P < 0.05$).

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E-mail: 385763580@qq.com

serum MMP 2 and sST2 were independent risk factors for atrial fibrillation recurrence. The area under the ROC curve AUC

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E mail fan.yue@zs hospital.sh.cn

creased while high density lipoprotein cholesterol decreased in both groups and the change amplitude of the above indicators was lower in the EC T group than in the EC group $P<0.05$.

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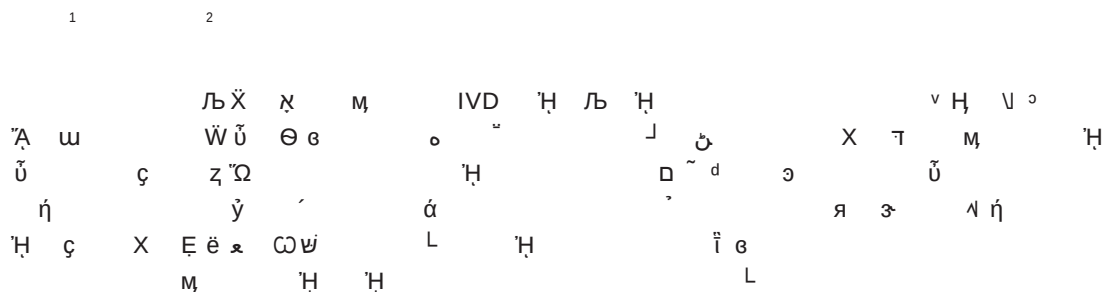
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Assessment of the high dose hook effect of *in vitro* diagnostic reagents

TAN Yan¹ WU Haonan²

1. Great Bay Area Center for Medical Device Evaluation and Inspection of NMPA Shenzhen China 518045
2. Yangtze River Delta Center for Medical Device Evaluation and Inspection of NMPA Shanghai China 201210

ABSTRACT Manufacturers must assess the high dose hook effect for certain *in vitro* diagnostic IVD reagents to address the risk of low or false negative test results. In accordance with the Guidelines for the Registration and Review of Analytical Performance Evaluation of In Vitro Diagnostic Reagents released by the Center for Medical Device Evaluation CMDE of the National Medical Products Administration NMPA it is important to determine the appropriate initial dilution of the sample based on clinical applications. This helps identify the maximum analyte concentration at which the high dose hook effect may occur. Meanwhile factors such as dilution factors diluent solutions and extended measurement intervals should be considered in the evaluation protocol for clinical test reagents to mitigate the impact of the high dose hook effect.

KEY WORDS *In vitro* diagnostic reagents, IVD High dose hook effects Gradient dilution Extended measuring interval

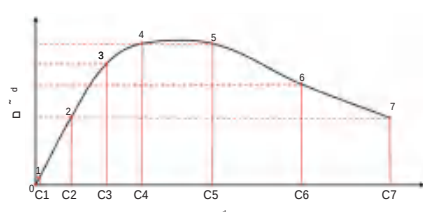
1. Great Bay Area Center for Medical Device Evaluation and Inspection of NMPA Shenzhen China 518045

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E-mail: tanyan@mdei.org.cn

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1 Hook

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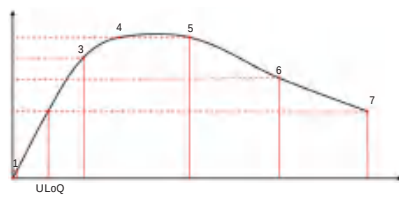
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