

中国科技核心期刊(中国科技论文统计源期刊)  
中国科技论文与引文数据库收录期刊  
美国化学文摘社《化学文摘》收录期刊  
美国《剑桥科学文摘(自然科学)》来源期刊  
英国《农业与生物科学研究文摘》收录期刊  
英国《全球健康》收录期刊  
世界卫生组织西太平洋地区医学索引收录期刊  
美国EBSCO期刊全文数据库收录期刊

ISSN 1671-7414  
CN 61-1398/R  
CODEN XJYZB4



# 现代检验医学杂志<sup>®</sup>

XIANDAI JIANYAN YIXUE ZAZHI

第36卷 第5期 2021年9月

JOURNAL  
OF  
MODERN  
LABORATORY  
MEDICINE

Volume 36 Number 5

Sep 2021



现代检验医学杂志编辑委员会

ISSN 1671-7414



9 771671 741219

THE EDITORIAL COMMITTEE  
OF JOURNAL OF MODERN  
LABORATORY MEDICINE

# 现代检验医学杂志

Xiandai Jianyan Yixue Zazhi

第 36 卷

第 5 期

2021 年 9 月

## 目 次

### 论 著

冠心病并发高血压患者外周血白细胞 SREBP-1 mRNA 表达水平与脂质代谢紊乱的关系研究 .....	张训男, 彭春艳, 李显东, 等 (001)
单采献血者 IL-28b 基因多态性与隐匿性 HBV 感染相关性研究 .....	周娟, 郭成山, 竺青, 等 (008)
中国西北地区 102 例儿童 Duchenne 型肌营养不良基因突变及家系分析研究 .....	杨乐, 赵斯钰, 郑妍妍, 等 (012)
长链非编码 RNA LINC00222 对肺腺癌细胞增殖、迁移、侵袭和凋亡的影响及作用机制的研究 .....	胡艳正, 牛彦杰, 石鹏飞 (016)
深圳龙华区孕妇血清维生素 D 水平及其受体基因 rs2228570 多态性与子痫前期易感性相关性研究 .....	崔普芳, 刘爱胜, 李喆, 等 (023)
卵巢癌患者血液 NLR, CA125, HE4 水平联合检测的实验诊断和预后价值研究 .....	刘检, 李敏, 陆明洋, 等 (028)
基于 TCGA 数据库筛选微小 RNA (miRNA) 用于原发性乳腺癌早期诊断的生物信息学分析 .....	尹阳, 孙巨军, 李越, 等 (033)
基于 GEO 数据库整合 miRNA-mRNA 表达谱筛选卵巢癌的关键基因分子及生物信息分析 .....	李超, 朱晓丹, 张玲华, 等 (038)
急性缺血性脑卒中患者血清 miRNA-181c-5p, miRNA-340-5p 和 miRNA146a 水平表达检测的诊断价值研究 .....	郭洁, 池水侠 (043)
基于核磁共振氢谱筛选隐性梅毒患者血清代谢组学生物标志物的研究 .....	王欣俞, 赵晋文, 蔡立文, 等 (046)
血浆 miR-223-3p, PCT, IL-6 和 CRP 水平联合检测对脓毒症实验诊断及预后的价值研究 .....	王海, 肖华, 陈兴壮 (051)
新生儿急性呼吸窘迫综合征患者血清 miR-183-5p 的表达及与 IL-1 $\beta$ , IL-6 和 TNF- $\alpha$ 水平的相关性 .....	宋婷阁, 张鹏举, 耿彪, 等 (055)
HCV 感染患者血清 miR-199 和 miR-483 水平表达及其临床价值 .....	王楷翔, 赵娟, 曹明, 等 (058)
食管癌患者血清神经元特异性烯醇化酶与长链非编码 RNA ITGA9-AS1 水平联合检测的实验诊断价值研究 .....	朱娇, 王英英, 孙国才, 等 (062)
鼻咽癌患者血清 miR-144-3p 及 miR-151-3p 的表达水平及临床价值 .....	薛玉峰, 张会平, 王芳, 等 (065)
高级别浆液性卵巢癌患者血清 miR-1246 和 miR-2278 检测水平的临床诊断价值 .....	赵莉, 樊阳阳, 曹阳阳, 等 (069)
乳腺癌晚期患者循环肿瘤细胞表型 Vimentin mRNA 与 AKT1 mRNA 水平表达对临床疗效评估的价值研究 .....	欧阳航, 陈德波, 骆时木, 等 (073)
重症患者血清 PCT, sTREM-1 和 YKL-40 水平与呼吸机相关性肺炎发生的相关性研究 .....	王丹, 齐连振, 贾玉凤, 等 (077)
肺炎患者血液 PLT, PA/Fig 和 NGAL 联合检测在不同类型病原菌感染鉴别及疗效评估中的价值 .....	秦云 (083)
慢性肾心综合征患者血清 9 项心衰标志物水平联合检测的实验诊断价值研究 .....	曹雷, 汪隆海, 周梅, 等 (090)
血清 PCT, IL-6, SAA, hs-CRP 水平联合检测对快速筛查早期血流感染的价值 .....	凌利芬, 邹小红, 刘小晴, 等 (085)
血清 CA199, KL-6 和 PIVKA-II 水平联合检测在胰腺癌诊断中的应用价值分析 .....	邢瑞青, 彭道荣, 刘杨 (100)

### 新型冠状病毒肺炎检验专题

新型冠状病毒肺炎患者血浆 CRP, PCT 和 IL-6 水平检测的临床诊断价值 .....	马俊娥, 邬开朗, 崔湘铧, 等 (105)
------------------------------------------------	------------------------

## 研究简报·实验技术

- 10 株宫颈癌细胞系中 MALAT1 的表达及其对顺铂敏感性的影响 ..... 张治洋, 李功娟 (110)  
人角膜基质间充质干细胞外泌体的分离制备及鉴定 ..... 刘先宇, 汪 耀, 潘士印, 等 (114)  
COL4A5 基因 c.3667G>C (p.G1223R) 突变致 X 链锁 Alport 综合征家系的分子生物学实验诊断研究 ..... 侯思南, 叶红玲, 曾 健, 等 (117)

## 检验与临床

- 帕金森病患者治疗期间血清 miR-153, miR-128b 水平表达与非运动症状的相关性研究 ..... 李群英, 甄时建, 何树光, 等 (120)  
急性脑缺血患者血清 IGFBP-4 和 PLGF 水平与颈动脉斑块不稳定性相关性研究 ..... 张 盼, 薛 伟, 张 熊, 等 (124)  
血清 Galectin-3 和 HDL-C 水平检测对急性缺血性脑卒中预后的影响研究 ..... 利荣乔 (128)  
支气管哮喘患者血清 MicroRNA-145 水平表达与肺功能、气道重塑及 Th1/Th2 平衡的关系分析 ..... 李 颖, 任炳臣, 韩晓庆, 等 (133)  
骨质疏松患者血清 25(OH)D, 骨膜素、铁蛋白水平及其与骨折发生的相关性分析 ..... 廖 强, 付翠芳, 高佳丽, 等 (138)  
妊娠期糖尿病患者血清 miR-21, PPAR  $\gamma$  和 IGF-1R 表达水平与凝血功能和妊娠结局的相关性研究 ..... 孙 红, 王文丽 (143)  
支气管哮喘患者外周血 TIM4, IgG4 及 EOS 水平表达与其肺功能、哮喘发病严重程度及预后的相关性研究 ..... 蒋筠斐, 须 静, 钟政荣 (148)  
老年全麻术患者血清 HIF-1  $\alpha$ , S-100  $\beta$  蛋白, BDNF 水平及 rSO<sub>2</sub> 的动态检测与围术期神经认知紊乱的相关性分析 ..... 马 磊, 蔡亲东, 陈基胜 (153)  
急性脑损伤患者血清 Tau, HMGB1 水平检测在判断并发认知功能障碍风险的应用价值 ..... 陶红莉, 鲁晓波, 吴 怡, 等 (159)  
慢性牙周炎伴咬合创伤患者龈沟液炎性因子表达及与骨代谢指标的相关性研究 ..... 郑海龙, 王斯璐 (164)  
育龄妇女年龄、孕前 BMI 和孕早期空腹血糖水平分布在妊娠期糖尿病预测中的价值 ..... 许 航, 贺 丹, 罗 晴 (169)

## 综 述

- 数字聚合酶链反应 (dPCR) 技术在病原体基因检测应用中的研究进展 ..... 唐月明, 伊 洁 (174)  
多发性骨髓瘤早期实验诊断相关新兴生物标志物的最新研究进展 ..... 徐海燕, 陆学东 (180)  
鼻咽癌不同临床分期中白细胞介素水平表达的最新研究进展 ..... 潘国刚, 杨碧秀 (184)

## 广告索引

- 彩色广告: 潍坊市康华生物技术有限公司 封三  
中国科技核心期刊收录证书 封二 江西乐成生物医疗有限公司 封底

刊名题字: 著名于体书法家李立恺先生  
本期责任编辑: 王 华 归巧娣

封面设计: 王 华 雷岐锁  
本期责任校对: 王 华 郭文静

## 现代检验医学杂志

*Xiandai Jianyan Yixue Zazhi*

中国标准连 : ISSN 1671-7414 (国际标准连续出版物)  
续出版物号 : CN61-1398/R (国内统一连续出版物)  
双月刊 (1986年1月创刊) 第36卷 第5期 2021年9月

主管单位: 陕西省卫生健康委员会  
主办单位: 陕西省临床检验中心  
陕西省人民医院  
名誉主编: 黄立勋 高敬龙 主 编: 宋张骏  
社长 副主编: 王岐山 副主编: 任健康 魏力强  
副社长 常务副主编: 王 华  
编辑部主任: 王 华

编辑出版: 《现代检验医学杂志》编辑部  
地 址: 西安市友谊西路 256 号陕西省人民医院内  
邮政编码: 710068  
电 话: (029) 85249600-2006, 2424  
电子信箱: xdjyyx@126.com  
网 址: <http://www.xdjyyxzz.com>  
印刷装订: 西安东方印刷厂  
发行范围: 公开发行  
国内发行: 中国邮政集团公司陕西省报刊发行局  
订 阅: 全国各地邮政局(所)  
国外发行: 中国国际图书贸易集团有限公司  
邮发代号: 国内 52—116/国外 BM6452  
国内定价: 25.00 元/期  
广告许可证: 陕工商广字 6100004000018 号

# Journal of Modern Laboratory Medicine

Vol. 36 No. 5 Sept. 2021

## Main Contents

<b>Correlation Analysis between Leukocytes SREBP-1 mRNA Expression and Serum Lipids Level in Hypertensive Patients with Coronary Artery Disease</b>	ZHANG Xun-nan, PENG Chun-yan, LI Xian-dong, et al .....	( 001 )
<b>Study on the Correlation between IL-28b Gene Polymorphism and Occult HBV Infection in Platelet Donors</b>	ZHOU Juan, GUO Cheng-shan, ZHU Qing, et al .....	( 008 )
<b>102 Cases of Duchenne Muscular Dystrophy in Children in Northwest China Study on Gene Mutation and Family Analysis</b>	YANG Le, ZHAO Si-yu, ZHENG Yan-yan, et al .....	( 012 )
<b>Effect of Long Non Coding RNA LINC00222 on Proliferation, Migration, Invasion and Apoptosis of Lung Adenocarcinoma Cells and Its Mechanism</b>	HU Yan-zheng, NIU Yan-jie, SHI Peng-fei .....	( 016 )
<b>Study on the Correlation between Serum Vitamin D Level and rs2228570 Polymorphism of Its Receptor Gene and Preeclampsia Susceptibility in Pregnant Women in Shenzhen Longhua District</b>	CUI Pu-fang, LIU Ai-sheng, LI Zhe, et al .....	( 023 )
<b>Experimental Diagnosis and Prognostic Value of Combined Detection of Blood NLR, CA125 and HE4 Levels in Ovarian Cancer Patients</b>	LIU Jian, LI Min, LU Ming-yang, et al .....	( 028 )
<b>Bioinformatics Analysis of Screening miRNA for Early Diagnosis of Primary Breast Cancer Based on TCGA Database</b>	YIN Yang, SUN Ju-jun, LI Yue, et al .....	( 033 )
<b>Screening Key Biomarkers and Bioinformatic Analysis of Ovarian Cancer by Integrated miRNA-mRNA Expression Profiles Based on GEO Database</b>	LI Chao, ZHU Xiao-dan, ZHANG Ling-hua, et al .....	( 038 )
<b>Diagnostic Value of miRNA-181c-5p, miRNA-340-5p and miRNA146a Levels in Patients with Acute Ischemic Stroke</b>	GUO Jie, CHI Shui-xia .....	( 043 )
<b>Study on Screening of Metabolomic Biomarkers in Recessive Syphilis Patients Based on <sup>1</sup>H NMR</b>	WANG Xin-yu, ZHAO Jin-wen, CAI Li-wen, et al .....	( 046 )
<b>Value of Combined Detection of Plasma miR-223-3p, PCT, IL-6 and CRP Levels in Experimental Diagnosis and Prognosis of Sepsis</b>	WANG Hai, XIAO Hua, CHEN Xing-zhuang .....	( 051 )
<b>Expression of Serum miR-183-5p in Patients with Neonatal Acute Respiratory Distress Syndrome and Its Correlation with IL-1 <math>\beta</math>, IL-6 and TNF- <math>\alpha</math></b>	SONG Ting-ge, ZHANG Peng-ju, GENG Biao, et al .....	( 055 )
<b>Expression and Clinical Value of Serum miR-199 and miR-483 in Patients with HCV Infections</b>	WANG Kai-xiang, ZHAO Juan, CAO Ming, et al .....	( 058 )
<b>Experimental Diagnostic Value of Combined Detection of Serum Neuron-Specific Enolase and Long Non-Coding RNA ITGA9-AS1 in Patients with Esophageal Cancer</b>	ZHU Jiao, WANG Ying-ying, SUN Guo-cai, et al .....	( 062 )
<b>Expression and Clinical Value of Serum miR-144-3p and miR-151-3p Levels in Patients with Nasopharyngeal Carcinoma</b>	XUE Yu-feng, ZHANG Hui-ping, WANG Fang, et al .....	( 065 )
<b>Clinical Diagnostic Value of Serum miR-1246 and miR-2278 Detection Levels in Patients with High-Grade Serous Ovarian Cancer</b>	ZHAO Li, FAN Yang-yang, CAO Yang-yang, et al .....	( 069 )
<b>Value of Circulating Tumor Cell Phenotype Vimentin mRNA and AKT1 mRNA Expression in the Evaluation of Clinical Efficacy in Patients with Advanced Breast Cancer</b>	OUYANG Hang, CHEN De-bo, LUO Shi-mu, et al .....	( 073 )
<b>Correlation between Serum PCT, sTREM-1, YKL-40 Levels and Ventilator-Associated Pneumonia in Severe Patients</b>	WANG Dan, QI Lian-zhen, JIA Yu-feng, et al .....	( 077 )
<b>Value of Combined Detection of PLT, PA/Fig and NGAL in the Blood of Patients with Pneumonia in the Identification of Different Types of Pathogenic Infections and the Evaluation of Therapeutic Effects</b>	QIN Yun .....	( 083 )
<b>Study on Experimental Diagnostic Value for Combined Detection of 9 Heart Failure Markers in Serum of Patients with Chronic Renal Heart Syndrome</b>	CAO Lei, WANG Long-hai, ZHOU Mei, et al .....	( 090 )
<b>Clinical Application Values of Procalcitonin, Interleukin-6, Serum Amyloid A and Hypersensitive of C-reactive Protein Detections in the Diagnosis of Early Bloodstream Infection</b>	LING Li-fen, ZOU Xiao-hong, LIU Xiao-qing, et al .....	( 095 )
<b>Application Value of Combined Detection of Serum CA199, KL-6 and PIVKA - II Levels in the Diagnosis of Patients with Pancreatic Cancer</b>	XING Rui-qing, PENG Dao-rong, LIU Yang .....	( 100 )

<b>Diagnostic Value of Determination of Plasma CRP, PCT and IL-6 Levels in Patients with COVID-19</b>	
MA Jun-e, WU Kai-lang, CUI Xiang-hua, et al .....	( 105 )
<b>Expression of MALAT1 in 10 Cervical Cancer Cell Lines and Its Effect on Cisplatin Sensitivity</b>	
ZHANG Zhi-yang, LI Gong-juan .....	( 110 )
<b>Isolation and Identification of Exosomes Derived from Human Corneal Stromal Mesenchymal Stem Cells</b>	
LIU Xian-ning, WANG Yao, PAN Shi-yin, et al .....	( 114 )
<b>Molecular Biological Experimental Diagnostic Study of A Novel COL4A5 Gene Mutation c.3667G&gt;C (p.G1223R) Result in X-linked Alport Syndrome in A Chinese Family</b>	
HOU Si-nan, YE Hong-ling, ZENG Jian, et al .....	( 117 )
<b>Research on Correlation between Expression of Serum miR-153, miR-128b Levels and Non-motor Symptoms in Patients with Parkinson's Disease During Treatment Period</b>	
LI Qun-ying, ZHEN Shi-jian, HE Shu-guang, et al .....	( 120 )
<b>Correlation between the Levels of IGFBP-4, PIGF in Serum and Carotid Plaque Instability in Patients with Acute Cerebral Ischemia</b>	
ZHANG Pan, XUE Wei, ZHANG Xiong, et al .....	( 124 )
<b>Effect of Serum Galectin-3 and HDL-C Levels on Prognosis of Acute Ischemic Stroke</b>	
LI Rong-qiao .....	( 128 )
<b>Relationship between Serum MicroRNA-145 Expression with Lung Function, Airway Remodeling and Th1/Th2 Balance in Patients with Bronchial Asthma</b>	
LI Ying, REN Bing-chen, HAN Xiao-qing, et al .....	( 133 )
<b>Serum Levels of 25(OH)D, Periostin and Ferritin in Patients with Osteoporosis and Their Correlation with Fracture</b>	
LIAO Qiang , WANG Juan .....	( 138 )
<b>Study on the Correlation between Serum miR-21, PPAR <math>\gamma</math> and IGF-1R Expression Levels in Patients with Gestational Diabetes and Blood Coagulation Function and Pregnancy Outcome</b>	
SUN Hong ,FU Cui-fang, GAO Jia-li, et al .....	( 143 )
<b>Correlation of Peripheral Blood TIM4, IgG4 and EOS Expression Levels with the Prognosis in Bronchial Asthma Patients</b>	
JIANG Yun-fei, XU Jing, ZHONG Zheng-rong .....	( 148 )
<b>Correlation Analysis of Dynamic Detection of Serum HIF-1<math>\alpha</math>, S-100<math>\beta</math> Protein, BDNF and rSO<sub>2</sub> with Perioperative Neurocognitive Disorders in Elderly Patients Undergoing General Anesthesia</b>	
MA Lei, CAI Qing-dong, CHEN Ji-sheng .....	( 153 )
<b>Application Value of Serum Tau and HMGB1 Levels in Patients with Acute Brain Injury in Judging the Risk of Cognitive Impairment</b>	
TAO Hong-li, LU Xiao-bo, WU Yi, et al .....	( 159 )
<b>Expression of Inflammatory Factors in Gingival Crevicular Fluid and Its Correlation with Bone Metabolism in Patients with Chronic Periodontitis and Occlusal Trauma</b>	
QI Hai-long, WANG Si-lu .....	( 164 )
<b>Value of Age, Pre-Pregnancy Body Mass Index and Fasting Blood Glucose in Early Pregnancy in Predicting Gestational Diabetes Mellitus among Fertile Women</b>	
XU Hang, HE Dan, LUO Qing .....	( 169 )
<b>Recent Advances in Research on Digital Polymerase Chain Reaction ( dPCR ) in Pathogen Gene Detection</b>	
TANG Yue-ming, YI Jie .....	( 174 )
<b>Recent Research Progress of Novel Biomarkers for Early Experimental Diagnosis of Multiple Myeloma</b>	
XU Hai-yan, LU Xue-dong .....	( 180 )
<b>Latest Research Progress on the Expression Mechanism of Interleukin in Nasopharyngeal Carcinoma Different Clinical Staging</b>	
PAN Guo-gang, YANG Bi-xiu .....	( 184 )

**Editor of Responsibility:** WANG Hua GUI Qiao-di

**Proofreader:** WANG Hua GUO Wen-jing

## Journal of Modern Laboratory Medicine

Bimonthly ( Founded in January,1986 )

ISSN 1671-7414 CN 61-1398/R

**Distribution Limits:** Open

**Honorary Chief Editor:** HUANG Li-xun GAO Jing-long

**Chief Editor:** SONG Zhang-jun

**Director of the Press and Subeditor:** WANG Qi-shan

**Subeditor:** Ren Jian-kang

WEI Li-qiang

**Vice Director of Press, Standing**

**Vice Chief Editor and Director of Editorial Office:**

WANG Hua

Vol.36 No.5 Sept. 2021

## Responsible Institution:

Health Commission of Shaanxi Province

## Sponsors:

Shaanxi Province Center for Clinical Laboratory

Shaanxi Provincial People's Hospital

Edited by the Editorial Board of 《Journal of Modern Laboratory Medicine》

**Address:**256 Youyi West-road, Xi'an, 710068

**Telephone:** ( 86-29 ) 85249600-2006,2424

[Http://www.xdjyxzz.com](http://www.xdjyxzz.com)

**Internal Distributor:**China Post Group Company in Shaanxi Province Newspaper Board

**Overseas Distributor:**China International Book Trading Group Co. LTD.P.O.Box 399,Beijing, China, Code No. BM6452

E-mail: [xdjyyx@126.com](mailto:xdjyyx@126.com)