



ISSN 1001-5256  
CN 22-1108/R  
CODEN LGZAEM

# 临床肝胆病杂志

LINCHUANG GANDANBING ZAZHI

JOURNAL OF CLINICAL HEPATOLOGY

第38卷 第**10**期 2022年10月

Vol. 38 No. 10 Oct. 2022

[www.lcgdbzz.org](http://www.lcgdbzz.org)

- / 百种中国杰出学术期刊
- / 中国精品科技期刊
- / 中国精品科技期刊顶尖学术论文(F5000)项目 来源期刊
- / 《科技期刊世界影响力指数(WJCI)报告》收录期刊
- / 中文核心期刊
- / 中国科技核心期刊
- / RCCSE中国核心学术期刊(A)
- / 荷兰《文摘与引文数据库》(Scopus) 来源期刊
- / 美国《化学文摘(网络版)》(CA) 来源期刊
- / 瑞典《期刊公开获取指南》(DOAJ) 来源期刊
- / 瑞士《健康网络首创研究获取》(HINARI) 来源期刊
- / 俄罗斯《文摘杂志》(AJ, VINITI) 来源期刊
- / 美国《艾博思科数据库》(Eh, EBSCOhost) 来源期刊
- / 英国《国际农业与生物科学研究中心》(CABI) 来源期刊
- / 《日本科学技术振兴机构数据库(中国)》(JSTChina) 来源期刊
- / 世界卫生组织《西太平洋地区医学索引》(WPRIM) 来源期刊
- / 美国《剑桥科学文摘》(CSA) 来源期刊
- / 波兰《哥白尼索引》(IC) 来源期刊
- / 美国《乌利希期刊指南(网络版)》(Ulrichsweb) 注册期刊
- / 《中国学术期刊文摘》数据库(CSAD) 来源期刊
- / 《中国学术期刊影子年报》 统计源期刊

ISSN 1001-5256



F5000



中华人民共和国教育部主管  
吉林大学主办

主 管 : 中华人民共和国教育部  
主 办 : 吉林大学  
编辑出版 : 《临床肝胆病杂志》编辑部  
通信地址 : 吉林省长春市东民主大街 519 号  
邮政编码 : 130061  
电话号码 : 0431 - 88782542/3542  
电子信箱 : lcgdb@vip. 163. com  
官方网站 : www. lcgdbzz. org  
官方微信 : lcgdbzz1985  
官方微博 : http://weibo. com/lcgdbzz

学术支持 : 中华医学会肝病学分会

名誉主编 : 庄 辉 谭毓铨

顾 问 : 王红阳 王福生 田志刚  
刘允怡 朱 诚 汤钊猷  
李兆申 汪忠镐 陈可冀  
陈孝平 陈培哲 郑树森  
侯云德 赵玉沛 闻玉梅  
骆抗先 翁心华 斯崇文  
曾民德 董家鸿 窦科峰  
樊代明 樊 嘉 黎介寿

主 编 : 贾继东

执行主编 : 牛俊奇

广告经营许可证号 : 2201005030549

印 刷 : 吉林华源印务有限公司

国内发行 : 中国邮政集团有限公司  
吉林省报刊发行分公司

国外发行 : 中国国际图书贸易集团有限公司  
(北京 399 信箱,100044)  
代号 : M5995

订 购 : 全国各地邮局(所)

邮发代号 : 12 - 80

国内定价 : 60 元/册;720 元/年

中国标准连续出版物号 :

ISSN 1001 - 5256  
CN 22 - 1108/R



网站



微信



微博

作者在本刊发表的文章版权  
归《临床肝胆病杂志》编辑部所有

## “异种肝移植的发展与创新”重点号

本期执行主编: 窦科峰

### 目 次

#### 述评

突破供肝短缺难题: 异种肝移植的发展与创新…………… (2201)  
李霄, 窦科峰

#### 专家论坛

异种肝移植手术的特点与难点…………… (2206)  
李霄, 陶开山

异种肝移植中的急性体液性排斥反应…………… (2210)  
章忠强, 梁硕洲, 司中洲, 齐海智

基因编辑猪用于急性肝衰竭治疗的路径探讨…………… (2214)  
淮国丽, 杜嘉祥, 潘登科

#### 指南与规范

《2022 年美国肝病学会实践指南: 药物、草药和膳食补充剂  
诱导的肝损伤》摘译…………… (2219)  
景婧, 何婷婷, 柏兆方, 王伽伯, 王睿林, 肖小河

#### 论著

##### 病毒性肝炎

富马酸替诺福韦酯治疗的慢性乙型肝炎患者 3 年血清 HBV DNA  
和 HBsAg 的动态变化…………… (2224)

鲁瑞, 党双锁, 刘怡欣, 王怡恺, 刘晨瑞, 李亚萍, 吴凤萍, 李梅  
慢性乙型肝炎合并代谢相关性脂肪性肝病的临床特征及预后  
影响因素分析…………… (2230)

刘伟鸿, 刘晖, 丁惠国, 李磊  
慢性乙型肝炎患者肝纤维化程度与肾损伤的相关性分析…………… (2236)

肖璐, 颜学兵, 费媛媛  
aMAP 评分评估门诊慢性 HBV 感染者肝细胞癌风险的价值分析  
…………… (2242)

王丽旻, 张鸿飞, 甘雨, 谢思, 王静月, 黄缘

## 脂肪性肝病

- 心脏代谢指数与代谢相关脂肪性肝病的相关性分析 ..... (2247)  
武云霞,李程亮,李晓磊,罗钊晓,任天顺

## 肝纤维化及肝硬化

- 慢性乙型肝炎和乙型肝炎肝硬化患者发生低病毒血症的影响因素及其与肝脏炎症、肝纤维化进展的关系 ..... (2252)  
宣碧碧,徐永红,杜忠彩,刘玉,杨玉玲,边城
- 肝硬化门静脉高压症患者脾切除后早期血栓形成与 Janus 激酶 - 信号转导和转录激活因子信号通路的关系 ..... (2260)  
王欢,申晓旭,陈良琪,龚天兰
- 舒肝和络醒脾方对肝纤维化大鼠模型肝组织 Wnt/ $\beta$  - Catenin 信号通路的影响 ..... (2265)  
王奎淞,张秋菊,魏书瑶,殷世鹏,李婕娴,陈世玉,郭嘉琪,赵鲲鹏
- 咖啡酸苯乙酯对肝星状细胞的作用及机制分析 ..... (2273)  
杨宁,邓江,王怡恺,常莎,高宁,王文俊,党双锁,石娟娟
- 黄芪汤含药血清对血管内皮生长因子诱导的大鼠肝窦内皮细胞增殖、迁移和成管能力的影响及其作用机制 ..... (2279)  
王浩艺,麦静恬,平键,成扬

## 肝脏肿瘤

- 肝动脉栓塞序贯射频消融间隔时间对小肝癌治疗效果的影响 ..... (2286)  
孙玉,张洪海,龙江,生守鹏,郑加生,张永宏
- 内镜治疗肝细胞癌合并门静脉癌栓患者食管胃静脉曲张出血后再出血的危险因素分析 ..... (2290)  
梁秀霞,何玲玲,杨君茹,张福阳,马佳丽,周玉玲,胡居龙,李坪,魏红山

## 其他肝病

- 首乌制剂相关肝损伤伴或不伴自身抗体阳性患者临床特征比较 ..... (2296)  
蔡静,周桂琴,刘亚兴,李斌,王晓静,冯颖,王宪波
- 糖皮质激素治疗重症药物性肝损伤患者的效果分析 ..... (2302)  
严微,黄会芳
- 国际标准化比值不同分层的慢加急性肝衰竭患者行人工肝治疗的预后及不良反应观察 ..... (2308)  
曾雨雨,甘达凯,谢能文,万娇,熊墨龙

**胰腺疾病**

- 内脏脂肪相关指数与急性胰腺炎严重程度的关系 ..... (2313)  
 黄河铭,杨慧莹,覃颖颖,唐国都
- 磁共振 IDEAL - IQ 技术对急性胰腺炎患者脂肪与铁沉积的诊断效能分析 ..... (2320)  
 范慧芳,陈强,原小军,罗琳
- 可切除胰腺癌术前评分分级体系的建立与应用 ..... (2325)  
 王成方,王之江,王伟林

**病例报告**

- 丙型肝炎合并弥漫大 B 细胞淋巴瘤 1 例报告 ..... (2334)  
 涂芷馨,黄剑洁,王妍,马博,韩雨金,郭亮,温晓玉,金清龙
- 老年肝硬化患者经颈静脉肝内门体分流术后菌血症 1 例报告 ..... (2337)  
 刘琴,姚欣,李英,何胜,汤善宏,秦建平
- 肝窦阻塞综合征合并胰周积液误诊为急性胰腺炎 1 例报告 ..... (2341)  
 陈俊舜,张浩翔,殷涛
- 不可逆电穿孔消融术治疗不可切除壶腹部周围癌 1 例报告 ..... (2344)  
 扈彩霞,赵鹏,刘博君,郑加生,张永宏

**综述**

- 炎症相关标志物判断 HBV 相关慢加急性肝衰竭预后的研究进展 ..... (2346)  
 邓婷婷,李莉,关瀛,罗雪艳,秦坤,刘敏
- 人工智能及机器学习在非酒精性脂肪性肝病中的应用 ..... (2352)  
 冯巩,王雪莹,李珊珊,贺娜,郑皓允,严琴琴,弥曼
- 去乙酰化酶 Sirtuins 家族与非酒精性脂肪性肝病的关系 ..... (2357)  
 宗也凯,刘江凯
- 胆汁酸代谢在原发性胆汁性胆管炎发病机制中的作用 ..... (2362)  
 贾皖婷,刘晓晓,邵文琳
- 炎症在肝纤维化中的作用 ..... (2368)  
 李婷,刘华宝,胡文艳,饶春燕
- 肝纤维化发生机制及其中药逆转治疗的研究进展 ..... (2373)  
 刘世恒,赵素贤,张玉果
- 肝门 - 窦血管疾病的研究进展 ..... (2378)  
 刘靓,刘江凯,刘甜恬,张建文,张雅儒,李冰倩
- 胆汁酸在肝硬化心肌病中的作用 ..... (2383)  
 梁世洋,林强,宋俊良,王景杰
- 嵌合抗原受体 T 淋巴细胞免疫疗法在原发性肝癌中的应用 ..... (2387)  
 李康伟,尉丁,张若涵,李霄,陶开山

肝内胆管癌的危险因素与发病机制 .....	(2391)
梁煜,赵远红,李正	
人工肝治疗的抗凝剂应用进展及选择策略 .....	(2396)
马元吉,杜凌遥,白浪,唐红	
氧化应激在急性肝损伤中的作用 .....	(2402)
廖月,何毅怀,罗亚文	
终末期肝病血管活性物质抵抗发生机制与诊疗关系的争议和对策 .....	(2408)
刘建军,郑文凯,王江红,任燕军,刘研,赵利珍	
超声造影肝脏影像报告与数据系统分类标准在 M 类病变中的应用及进展 .....	(2412)
吴星霓,唐少珊,李想,李梓楠	
不可忽视的重症肝病——缺血性肝炎 .....	(2416)
祝凯,许红梅	
胆囊运动亢进的研究进展 .....	(2422)
梁文平,罗丹莛,刘博,薛东波,马磊	
胆管癌肿瘤微环境与免疫治疗 .....	(2428)
陈顺,王俊	

#### 国外期刊精品文章简介

<i>Hepatology</i>   基于人群分析发现 1992 年—2017 年美国人群肝细胞癌疾病负担下降 .....	(2259)
<i>Hepatology</i>   经颈静脉肝内门体分流术联合自发性门体分流封堵可有效降低术后显性肝性脑病 发病率 .....	(2285)
<i>Journal of Clinical Oncology</i>   新辅助放化疗方案可延长可切除和临界可切除胰腺癌患者的生存期 .....	(2312)

#### 消息

《临床肝胆病杂志》2023 年征稿征订启事 .....	(2205)
-----------------------------	--------

#### 志谢

本期审稿专家 .....	(2223)
--------------	--------

本刊稿约见 2022 年第 38 卷第 1 期第 247 页

责任编辑:邢翔宇 林姣

统计学编辑:刘晓红

CN22-1108/R \* 1985 \* m \* 16 \* 248 \* zh \* P \* ¥60.00 \* 4000 \* 46 \* 2022 - 10 \* n

**Supervisor**

Ministry of Education of the People's  
Republic of China

**Sponsor**

Jilin University

**Editing & Publishing**

Editorial Board of Journal of Clinical Hepatology  
Common. Add: 519 Dongminzhu Road,  
Changchun, China

Post Code: 130061

Tel: 86 -431 -88782542; 86 -431 -88783542

E-mail: lcgdb@vip.163.com

http://www.lcgdbzz.org

**Academic Support**

Chinese Society of Hepatology,  
Chinese Medical Association

**Honorary Editors -in -Chief**

ZHUANG Hui, TAN Yuquan

**Consultants**

WANG Hongyang, WANG Fusheng,  
TIAN Zhigang, LIU Yunyi, ZHU Cheng,  
TANG Zhaoyou, LI Zhaoshen, WANG Zhonggao,  
CHEN Keji, CHEN Xiaoping, CHEN Peizhe,  
ZHENG Shusen, HOU Yunde, ZHAO Yupei,  
WEN Yumei, LUO Kangxian, WENG Xinhua,  
SI Chongwen, ZENG Minde, DONG Jiahong,  
DOU Kefeng, FAN Daiming, FAN Jia, LI Jieshou

**Editor -in -Chief**

JIA Jidong

**Executive Deputy Chief Editor**

NIU Junqi

**The Advertising Business License**

2201005030549

**Printing Unit**

Jilin Huayuan Printing Co., Ltd.

**Issuing Scope**

Public issue

**Overseas Distributor**

China International Book Trading Corporation  
P. O. Box 399, Beijing 100044, China  
Code No. M5995  
Dewey #: 616.362; CODEN LGZAEM  
Send by mail cod No. : 5995M  
CNY 60/Copy, CNY 720/Year

**Copyright @ by the Journal of  
Clinical Hepatology**

**Theme Issue:** Development and Innovation of Xenogeneic  
Liver Transplantation

**Executive Chief Editor:** DOU Kefeng

**Contents**

**Editorial**

Development and progress of liver xenotransplantation: A potential  
breakthrough for current shortage of donor liver ..... (2201)  
*LI Xiao, DOU Kefeng*

**Discussions by Experts**

Liver xenotransplantation techniques: Characteristics and difficulties  
..... (2206)  
*LI Xiao, TAO Kaishan*

Acute humoral rejection in liver xenotransplantation ..... (2210)  
*ZHANG Zhongqiang, LIANG Shuozhou, SI Zhongzhou, QI Haizhi*

The discussion on the Genetically Modified Pigs for the treatment of acute  
liver failure ..... (2214)  
*Huai Guoli, Du Jiayang, Pan Dengke*

**Guideline**

An excerpt from AASLD Practice Guidance on drug, herbal and dietary  
supplement - induced liver injury ..... (2219)  
*JING Jing, HE Tingting, BAI Zhaofang, WANG Jiabo, WANG Ruilin, XIAO Xiaohu*

**Original Article**

**Viral Hepatitis**

Dynamic changes of serum hepatitis B virus DNA and HBsAg in patients  
with chronic hepatitis B treated with tenofovir disoproxil fumarate for 3 years  
..... (2224)  
*LIU Rui, DANG Shuangshuo, LIU Yixin, WANG Yikai, LIU Chenrui, LI Yaping,  
WU Fengping, LI Mei*

Clinical characteristics and prognosis of patients with chronic hepatitis B  
combined with metabolic associated fatty liver disease ..... (2230)  
*LIU Weihong, LIU Hui, DING Huiguo, LI Lei*

- Correlation analysis of hepatic fibrosis and renal injury in patients with chronic hepatitis B ..... (2236)  
*XIAO Lu, YAN Xuebing, FEI Yuanyuan*
- Value of aMAP score in prediction of hepatocellular carcinoma risk in outpatients with chronic hepatitis B virus infection  
..... (2242)  
*WANG Limin, ZHANG Hongfei, GAN Yu, XIE Si, WANG Jingyue, HUANG Yuan*

### **Fatty Liver Diseases**

- Correlation between cardiometabolic index and metabolic – associated fatty liver disease ..... (2247)  
*WU Yunxia, LI Chengliang, LI Xiaolei, LUO Zhaoxiao, REN Tianshun*

### **Liver Fibrosis and Liver Cirrhosis**

- Influencing factors for low – level viremia in patients with chronic hepatitis B or hepatitis B liver cirrhosis and its association  
with the progression of liver inflammation and liver fibrosis ..... (2252)  
*XUAN Bibi, XU Yonghong, DU Zhongcai, LIU Yu, YANG Yuling, BIAN Cheng*
- Association of JAK/STAT signaling pathway with portal vein thrombosis after splenectomy in cirrhotic patients with  
portal hypertension ..... (2260)  
*WANG Huan, SHEN Xiaoxu, CHEN Liangqi, GONG Tianlan*
- Shugan Heluo Xingpi Decoction inhibits liver fibrosis through regulation of Wnt/ $\beta$  – Catenin signaling pathway ..... (2265)  
*WANG Kuisong, ZHANG Qiuju, WEI Shuyao, YIN Shipeng, LI Jieyu, CHEN Shiyu, GUO Jiaqi, ZHAO Kunpeng*
- Role and mechanism of caffeic acid phenethyl ester in hepatic stellate cell ..... (2273)  
*YANG Ning, DENG Jiang, WANG Yikai, CHANG Sha, GAO Ning, WANG Wenjun, DANG Shuangsoo, SHI Juanjuan*
- Effect of serum containing Huangqi decoction on the proliferation, migration, and tubulogenesis of rat liver sinusoidal  
endothelial cells induced by vascular endothelial growth factor and its mechanism of action ..... (2279)  
*WANG Haoyi, MAI Jingyin, PING Jian, CHENG Yang*

### **Liver Neoplasms**

- Influence of the interval between transcatheter arterial embolization and radiofrequency ablation on the treatment  
outcome of small hepatocellular carcinoma ..... (2286)  
*SUN Yu, ZHANG Honghai, LONG Jiang, SHENG Shoupeng, ZHENG Jiasheng, ZHANG Yonghong*
- Risk factors of rebleeding after endoscopic treatment of patients with portal vein tumor thrombus and esophagogastric  
variceal bleeding ..... (2290)  
*LIANG Xiuxia, HE Lingling, YANG Junru, ZHANG Fuyang, MA Jiali, ZHOU Yuling, HU Julong, LI Ping, WEI Hongshan*

### **Other Liver Diseases**

- Clinical features of Polygonum multiflorum preparation – related liver injury with or without positive autoantibody ..... (2296)  
*CAI Jing, ZHOU Guiqin, LIU Yaxing, LI Bin, WANG Xiaojing, FENG Ying, WANG Xianbo*
- Effect of glucocorticoid in the treatment of severe drug – induced liver injury ..... (2302)  
*YAN Wei, HUANG Huifang*
- Prognosis and adverse reactions of patients with acute – on – chronic liver failure receiving artificial liver support therapy  
stratified by international normalized ratio ..... (2308)  
*ZENG Yuyu, GAN Dakai, XIE Nengwen, WAN Jiao, XIONG Molong*

## Pancreatic Diseases

- Relationship between visceral fat related index and the severity of acute pancreatitis ..... (2313)  
*HUANG Heming, Yang Huiying, Qin Yingying, TANG Guodu*
- Efficacy of magnetic resonance IDEAL – IQ technique in diagnosis of fat and iron deposition in acute pancreatitis ..... (2320)  
*FAN Huifang, CHEN Qiang, YUAN Xiaojun, LUO Lin*
- Establishment and application of a preoperative grading system for resectable pancreatic cancer ..... (2325)  
*WANG Chengfang, WANG Zhijiang, WANG Weilin*

## Case Reports

- Hepatitis C combined with diffuse large B – cell lymphoma: A case report ..... (2334)  
*TU Zhixin, HUANG Jianjie, WANG Yan, MA Bo, HAN Yujin, GUO Liang, WEN Xiaoyu, JIN Qinglong*
- Bacteremia in an elderly patient with cirrhotic after transjugular intrahepatic portosystemic shunt: A case report ..... (2337)  
*LIU Qin, YAO Xin, LI Ying, HE Sheng, TANG Shan hong, QIN Jianping*
- Hepatic veno – occlusive disease complicated with peripancreatic effusion misdiagnosed as acute pancreatitis:  
 A case report  
 ..... (2341)  
*CHEN Jiaoshun, ZHANG Haoxiang, YIN Tao*
- Treatment of unresectable periampullary carcinoma with irreversible electroporation: A case report ..... (2344)  
*HU Caixia, ZHAO Peng, LIU Bojun, ZHENG Jiasheng, ZHANG Yonghong*

## Reviews

- Research advances in inflammatory markers in predicting the prognosis of patients with HBV – related acute – on – chronic  
 liver failure ..... (2346)  
*DENG Tingting, LI Li, GUAN Ying, LUO Xueyan, QIN Kun, LIU Min*
- Application of artificial intelligence and machine learning in non – alcoholic fatty liver research ..... (2352)  
*FENG Gong, WANG Xueying, LI Shanshan, HE Na, ZHENG Haoyun, MI Man, YAN Qinqin*
- Association between the sirtuin family of deacetylases and nonalcoholic fatty liver disease ..... (2357)  
*ZONG Yekai, LIU Jiangkai*
- Role of bile acid metabolism in the pathogenesis of primary biliary cholangitis ..... (2362)  
*JIA Wanting, LIU Xiaoxiao, TAI Wenlin*
- Role of inflammation in hepatic fibrosis ..... (2368)  
*LI Ting, LIU Huabao, HU Wenyan, RAO Chunyan*
- Recent research progress and mechanisms on Traditional Chinese Medicine reversal therapy of liver fibrosis ..... (2373)  
*LIU Shiheng, ZHAO Suxian, ZHANG Yuguo*



Research advances in porto – sinusoidal vascular disease .....	(2378)
<i>LIU Liang, LIU Jiangkai, LIU Tiantian, ZHANG Jianwen, ZHANG Yaru, LI Bingqian</i>	
Role of bile acids in cirrhosis – related cardiomyopathy .....	(2383)
<i>LIANG Shiyang, LIN Qiang, SONG Junliang, WANG Jingjie</i>	
Application of chimeric antigen receptor T – cell immunotherapy in primary liver cancer .....	(2387)
<i>LI Kangwei, WEI Ding, ZHANG Ruohan, LI Xiao, TAO Kaishan</i>	
Recent advancement in research on intrahepatic cholangiocarcinoma: Risk factors and pathogenesis .....	(2391)
<i>LIANG Yu, ZHAO Yuanhong, LI Zheng</i>	
Anticoagulants for artificial liver support therapy: Application advances and selection strategies .....	(2396)
<i>MA Yuanji, DU Lingyao, BAI Lang, TANG Hong</i>	
Role of oxidative stress in acute liver injury .....	(2402)
<i>LIAO Yue, HE Yihuai, LUO Yawen</i>	
Vasoactive substance resistance mechanisms in diagnosis and treatment of end – stage liver diseases: Disputes and counter – measurement .....	(2408)
<i>LIU Jianjun, ZHENG Wenkai, WANG Jianghong, REN Yanjun, LIU Yan, ZHAO Lizhen</i>	
Application and progress of the contrast – enhanced ultrasound liver imaging reporting and data system (CEUS LI – RADS) in “M” lesions .....	(2412)
<i>WU Xingni, TANG Shaoshan, LI Xiang, LI Zinan</i>	
Ischemic hepatitis: A severe liver disease that cannot be neglected .....	(2416)
<i>ZHU Kai, XU Hongmei</i>	
The progression of biliary hyperkinesia research .....	(2422)
<i>LIANG Wenping, LUO Dankun, LIU Bo, XUE Dongbo, MA Biao</i>	
Advances in tumor microenvironment and immunotherapy of Cholangiocarcinoma .....	(2428)
<i>CHEN Shun, WANG Jun</i>	

## **Introduction of High – quality Articles in Foreign Journals**

<i>Hepatology</i>   Declining disease burden of HCC in the United States, 1992 –2017: A population –based analysis ...	(2259)
<i>Hepatology</i>   Concurrent large spontaneous portosystemic shunt embolization for the prevention of overt hepatic encephalopathy after TIPS: A randomized controlled trial .....	(2285)
<i>Journal of Clinical Oncology</i>   Neoadjuvant chemoradiotherapy versus upfront surgery for resectable and borderline resectable pancreatic cancer; long – term results of the Dutch randomized PREOPANC trial .....	(2312)

## **Thanks**

Current reviewers .....	(2223)
-------------------------	--------