

# World Journal of *Gastroenterology*

*World J Gastroenterol* 2020 September 14; 26(34): 5060-5222



## REVIEW

- 5060** Transjugular intrahepatic portosystemic shunt for Budd-Chiari syndrome: A comprehensive review  
*Inchingolo R, Posa A, Mariappan M, Tibana TK, Nunes TF, Spiliopoulos S, Broutzos E*
- 5074** Role of succinate dehydrogenase deficiency and oncometabolites in gastrointestinal stromal tumors  
*Zhao Y, Feng F, Guo QH, Wang YP, Zhao R*

## MINIREVIEWS

- 5090** Potential applications of artificial intelligence in colorectal polyps and cancer: Recent advances and prospects  
*Wang KW, Dong M*

## ORIGINAL ARTICLE

## Basic Study

- 5101** Arachidyl amido cholanoic acid improves liver glucose and lipid homeostasis in nonalcoholic steatohepatitis *via* AMPK and mTOR regulation  
*Fernández-Ramos D, Lopitz-Otsoa F, Delacruz-Villar L, Bilbao J, Pagano M, Mosca L, Bizkarguenaga M, Serrano-Macia M, Azkargorta M, Iruarizaga-Lejarreta M, Sot J, Tsvirkun D, van Liempd SM, Goni FM, Alonso C, Martínez-Chantar ML, Elortza F, Hayardeny L, Lu SC, Mato JM*
- 5118** Acupuncture improved lipid metabolism by regulating intestinal absorption in mice  
*Han J, Guo X, Meng XJ, Zhang J, Yamaguchi R, Motoo Y, Yamada S*

## Retrospective Study

- 5130** Golgi protein-73: A biomarker for assessing cirrhosis and prognosis of liver disease patients  
*Gatselis NK, Tornai T, Shums Z, Zachou K, Saitis A, Gabeta S, Albesa R, Norman GL, Papp M, Dalekos GN*
- 5146** Endoscopy-based Kyoto classification score of gastritis related to pathological topography of neutrophil activity  
*Toyoshima O, Nishizawa T, Yoshida S, Sakaguchi Y, Nakai Y, Watanabe H, Suzuki H, Tanikawa C, Matsuda K, Koike K*
- 5156** Construction of a convolutional neural network classifier developed by computed tomography images for pancreatic cancer diagnosis  
*Ma H, Liu ZX, Zhang JJ, Wu FT, Xu CF, Shen Z, Yu CH, Li YM*

## Observational Study

- 5169** Experimental model standardizing polyvinyl alcohol hydrogel to simulate endoscopic ultrasound and endoscopic ultrasound-elastography  
*Galvis-García ES, Sobrino-Cossío S, Reding-Bernal A, Contreras-Marín Y, Solórzano-Acevedo K, González-Zavala P, Quispe-Siccha RM*

**SYSTEMATIC REVIEWS**

- 5181** Mixed epithelial endocrine neoplasms of the colon and rectum – An evolution over time: A systematic review

*Kanthan R, Tharmaradinam S, Asif T, Ahmed S, Kanthan SC*

**META-ANALYSIS**

- 5207** Efficacy of pancreatoscopy for pancreatic duct stones: A systematic review and meta-analysis

*Saghir SM, Mashiana HS, Mohan BP, Dhindsa BS, Dhaliwal A, Chandan S, Bhogal N, Bhat I, Singh S, Adler DG*

**LETTER TO THE EDITOR**

- 5220** Peliosis hepatis complicated by portal hypertension following renal transplantation

*Demyashkin G, Zatsepina M*

**ABOUT COVER**

Editorial Board of *World Journal of Gastroenterology*, Dr. Rosa Leonôra Salerno Soares is Full Professor at the Faculty of Medicine of Universidade Federal Fluminense (Niterói, Rio de Janeiro). She completed her doctorate in medicine at the Federal University of Rio de Janeiro in 1994 and post-doctorate training in 2009 at the University of Porto, Portugal. Her career experience in internal medicine and clinical research is founded upon her interests in medicine, gastroenterology, intestinal diseases, functional diseases of the gastrointestinal tract, and nutritional support. Her academic teaching pursuits encompass curriculums in applying the scientific methodology to the health field. Currently, she is Head of the Department of Clinical Medicine (MMC) of the Faculty of Medicine of Universidade Federal Fluminense. Her full curriculum vitae can be accessed at: <http://lattes.cnpq.br/4236328959320774>. (L-Editor: Filipodia)

**AIMS AND SCOPE**

The primary aim of *World Journal of Gastroenterology* (WJG, *World J Gastroenterol*) is to provide scholars and readers from various fields of gastroenterology and hepatology with a platform to publish high-quality basic and clinical research articles and communicate their research findings online. WJG mainly publishes articles reporting research results and findings obtained in the field of gastroenterology and hepatology and covering a wide range of topics including gastroenterology, hepatology, gastrointestinal endoscopy, gastrointestinal surgery, gastrointestinal oncology, and pediatric gastroenterology.

**INDEXING/ABSTRACTING**

The WJG is now indexed in Current Contents®/Clinical Medicine, Science Citation Index Expanded (also known as SciSearch®), Journal Citation Reports®, Index Medicus, MEDLINE, PubMed, PubMed Central, and Scopus. The 2020 edition of Journal Citation Report® cites the 2019 impact factor (IF) for WJG as 3.665; IF without journal self cites: 3.534; 5-year IF: 4.048; Ranking: 35 among 88 journals in gastroenterology and hepatology; and Quartile category: Q2.

**RESPONSIBLE EDITORS FOR THIS ISSUE**

Production Editor: Yan-Liang Zhang; Production Department Director: Yun-Xiaojian Wu; Editorial Office Director: Ze-Mao Gong.

**NAME OF JOURNAL**

*World Journal of Gastroenterology*

**ISSN**

ISSN 1007-9327 (print) ISSN 2219-2840 (online)

**LAUNCH DATE**

October 1, 1995

**FREQUENCY**

Weekly

**EDITORS-IN-CHIEF**

Andrzej S Tarnawski, Subrata Ghosh

**EDITORIAL BOARD MEMBERS**

<http://www.wjgnet.com/1007-9327/editorialboard.htm>

**PUBLICATION DATE**

September 14, 2020

**COPYRIGHT**

© 2020 Baishideng Publishing Group Inc

**INSTRUCTIONS TO AUTHORS**

<https://www.wjgnet.com/bpg/gerinfo/204>

**GUIDELINES FOR ETHICS DOCUMENTS**

<https://www.wjgnet.com/bpg/GerInfo/287>

**GUIDELINES FOR NON-NATIVE SPEAKERS OF ENGLISH**

<https://www.wjgnet.com/bpg/gerinfo/240>

**PUBLICATION ETHICS**

<https://www.wjgnet.com/bpg/GerInfo/288>

**PUBLICATION MISCONDUCT**

<https://www.wjgnet.com/bpg/gerinfo/208>

**ARTICLE PROCESSING CHARGE**

<https://www.wjgnet.com/bpg/gerinfo/242>

**STEPS FOR SUBMITTING MANUSCRIPTS**

<https://www.wjgnet.com/bpg/GerInfo/239>

**ONLINE SUBMISSION**

<https://www.f6publishing.com>



## Peliosis hepatis complicated by portal hypertension following renal transplantation

Grigory Demyashkin, Margarita Zatsepina

**ORCID number:** Grigory Demyashkin 0000-0001-8447-2600; Margarita Zatsepina 0000-0002-6891-1711.

**Author contributions:** Zatsepina M drafted and edited the manuscript; Demyashkin G revised and approved the final version of the manuscript.

**Conflict-of-interest statement:** No conflicts of interest, financial or otherwise, are declared by the authors.

**Open-Access:** This article is an open-access article that was selected by an in-house editor and fully peer-reviewed by external reviewers. It is distributed in accordance with the Creative Commons Attribution NonCommercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>

**Manuscript source:** Unsolicited manuscript

**Received:** May 22, 2020

**Peer-review started:** May 22, 2020

**First decision:** June 4, 2020

**Grigory Demyashkin, Margarita Zatsepina**, Department of Pathology, Sechenov University, Moscow 119146, Russia

**Corresponding author:** Grigory Demyashkin, PhD, Assistant Professor, Department of Pathology, Sechenov University, Trubetskaya Street, 8/2, Moscow 119146, Russia. [dr.dga@mail.ru](mailto:dr.dga@mail.ru)

### Abstract

Peliosis hepatis is a rare benign disease, but in last years the number of identified cases has increased. This disease is known to be sometimes accompanied by hepatocellular carcinoma. In the recent article, Yu *et al* describe a case of liver peliosis, characterized by an increased proliferative index. Therefore, additional diagnosis of patients should include analyzing other tumor markers expression in order to assess the risk of malignant cell transformation in peliosis hepatis.

**Key Words:** Peliosis hepatis; Hepatocellular carcinoma; Survivin; Epithelial-mesenchymal transition

©The Author(s) 2020. Published by Baishideng Publishing Group Inc. All rights reserved.

**Core Tip:** Peliosis hepatis may be accompanied by malignant transformation. However, it remains unclear whether there is a pathogenetic relationship between these two conditions. The major purpose of this letter is to draw attention to the problem of timely diagnosis of carcinogenesis and prevention of tumor progression against the background of peliosis.

**Citation:** Demyashkin G, Zatsepina M. Peliosis hepatis complicated by portal hypertension following renal transplantation. *World J Gastroenterol* 2020; 26(34): 5220-5222

**URL:** <https://www.wjgnet.com/1007-9327/full/v26/i34/5220.htm>

**DOI:** <https://dx.doi.org/10.3748/wjg.v26.i34.5220>

### TO THE EDITOR

We have read with great interest the manuscript in your journal "Peliosis hepatis complicated by portal hypertension following renal transplantation" by Yu *et al*<sup>[1]</sup>,



**Revised:** June 11, 2020**Accepted:** August 26, 2020**Article in press:** August 26, 2020**Published online:** September 14, 2020**P-Reviewer:** Pan W**S-Editor:** Ma YJ**L-Editor:** A**P-Editor:** Ma YJ

which presents a case of a patient developing liver peliosis nine years after kidney transplantation and long-term immunosuppressive therapy. Histological analysis didn't reveal any malignant cells; however, the authors describe a high proliferative index in hepatocytes and therefore, suppose the development of highly differentiated angiosarcoma.

We appreciate the authors' contribution to drawing attention to this problem and in addition to this study we would like to propose a new approach for the prevention and timely diagnosis of possible malignant transformation against the background of liver peliosis.

In recent years, there has been an increase in the incidence of hepatocellular carcinoma (HCC) and cholangiocellular carcinoma (CCC), which are of great importance among the reasons of cancer-related deaths worldwide<sup>[2]</sup>. Basic molecular mechanisms of hepatocarcinogenesis include several main ones. A major tumor protein is survivin, which belongs to the inhibitor of apoptosis protein family. It is an unfavorable prognostic factor, including for HCC and CCC, and therefore is used as a tumor marker<sup>[3]</sup>. In addition, the key factor providing normal liver histoarchitectonics is the presence of tight intercellular junctions formed by the complex of E-cadherin and beta-catenin<sup>[4]</sup>. E-cadherin is able to suppress cell growth, transformation and invasion and thus, to inhibit tumor progression. Due to decrease in its expression, intercellular adhesion becomes weakened and is followed by cell dissemination to peritumoral area. This hypothesis has been proved for HCC and CCC, which means that there is a clear qualitative and quantitative relationship between these proteins and malignant transformation of hepato- and cholangiocytes. At the same time, beta-catenin enters the nucleus and the Wnt signaling pathway of carcinogenesis is activated. The acquisition of cell invasive ability is known as epithelial-mesenchymal transition (EMT) and is followed by increase in vimentin expression<sup>[5]</sup>.

Nevertheless, despite the confirmed significance of survivin in the progression of HCC and CCC, there are no data on its expression in peliosis hepatis, although this marker is a promising prognostic indicator. Few studies have shown that HCC can be accompanied by peliosis<sup>[6]</sup>. Taking into account the fact of the intercellular contacts destruction in HCC, as well as data on the role of E-cadherin and beta-catenin in peliosis, it can be assumed that HCC is not only present in liver along with peliosis, but may also be a stage of its progression<sup>[7]</sup>. Still there are no studies that show a clear relationship between these two diseases and consider manifestation of HCC as a final stage of peliosis. Moreover, there is evidence for the presence of vimentin-positive malignant cells in the liver peliosis<sup>[8]</sup>. The case of Yu *et al*<sup>[1]</sup> reports a high proliferative index in peliosis hepatis and therefore, the authors suspect the diagnosis of well-differentiated angiosarcoma. However, this assumption is not confirmed by any objective methods and does not verify the probability of carcinogenesis against the background of peliosis. This led us to the decision to conduct our own study using the markers mentioned above. A number of questions remain to be unravelled: does EMT occur in peliosis and is it accompanied by weakening of intercellular junctions? Is there a connection between pathogenetic stages of peliosis and malignant transformation in the liver? Last but not least, it is important to understand at which level carcinogenesis is initiated and what is paramount: molecular mechanisms of apoptosis inhibition with survivin involvement or transformation at the cellular level with the destruction of contacts between hepatocytes.

To resolve these questions, it is essential to study the expression of survivin, E-cadherin, beta-catenin and vimentin in cases of peliosis, HCC and CCC, as well as to give comparative assessment of the data obtained. These results can be subsequently used to determine the prognosis of peliosis hepatis, to evaluate the risk of hepatocytes malignant transformation and to prevent tumor progression in a timely manner, which is the most important task in oncological practice.

## REFERENCES

- 1 Yu CY, Chang LC, Chen LW, Lee TS, Chien RN, Hsieh MF, Chiang KC. Peliosishepatis complicated by portal hypertension following renal transplantation. *World J Gastroenterol* 2014; **20**: 2420-2425 [PMID: 24605041 DOI: 10.3748/wjg.v20.i9.2420]
- 2 Wirth TC, Vogel A. Surveillance in cholangiocellular carcinoma. *Best Pract Res Clin Gastroenterol* 2016; **30**: 987-999 [PMID: 27938792 DOI: 10.1016/j.bpg.2016.11.001]
- 3 Su C. Survivin in survival of hepatocellular carcinoma. *Cancer Lett* 2016; **379**: 184-190 [PMID: 26118774 DOI: 10.1016/j.canlet.2015.06.016]
- 4 Wong SHM, Fang CM, Chuah LH, Leong CO, Ngai SC. E-cadherin: Its dysregulation in carcinogenesis and clinical implications. *Crit Rev OncolHematol* 2018; **121**: 11-22 [PMID: 29279096 DOI: 10.1016/j.critrevonc.2017.11.010]

- 5 **Pearson GW**. Control of Invasion by Epithelial-to-Mesenchymal Transition Programs during Metastasis. *J Clin Med* 2019; **8** [PMID: [31083398](#) DOI: [10.3390/jcm8050646](#)]
- 6 **Mokkapati S**, Niopek K, Huang L, Cunniff KJ, Ruteshouser EC, deCaestecker M, Finegold MJ, Huff V.  $\beta$ -catenin activation in a novel liver progenitor cell type is sufficient to cause hepatocellular carcinoma and hepatoblastoma. *Cancer Res* 2014; **74**: 4515-4525 [PMID: [24848510](#) DOI: [10.1158/0008-5472.CAN-13-3275](#)]
- 7 **Demyashkin GA**, Tsibulevskiy AY, Balyka MA, Ivanov AN, Mamaev RU. [About the pathogenesis of peliosis hepatis]. *Patholog Physiol Exp Ther* 2019; 116-122 [DOI: [10.25557/0031-2991.2019.02.116-122](#)]
- 8 **Olson TS**, Chan ES, Paessler ME, Sullivan KE, Frantz CN, Russo P, Bessler M. Liver failure due to hepatic angiosarcoma in an adolescent with dyskeratosis congenita. *J Pediatr Hematol Oncol* 2014; **36**: 312-315 [PMID: [23588325](#) DOI: [10.1097/MPH.0b013e318286d4d4](#)]



Published by **Baishideng Publishing Group Inc**  
7041 Koll Center Parkway, Suite 160, Pleasanton, CA 94566, USA

**Telephone:** +1-925-3991568

**E-mail:** [bpgoffice@wjgnet.com](mailto:bpgoffice@wjgnet.com)

**Help Desk:** <https://www.f6publishing.com/helpdesk>

<https://www.wjgnet.com>

