REVIEW

4378 Regulation of the intestinal microbiota: An emerging therapeutic strategy for inflammatory bowel disease
Yue B, Yu ZL, Lv C, Geng XL, Wang ZT, Dou W

MINIREVIEWS

4394 Role of minimally invasive surgery for rectal cancer
Melstrom KA, Kaiser AM

4415 Accelerating the elimination of hepatitis C in Kuwait: An expert opinion
Hasan F, Al-Fadhli A, Al-Gharabally A, Al-Khalidi M, Colombo M, Lazarus JV

ORIGINAL ARTICLE

Retrospective Cohort Study

4428 Vedolizumab for ulcerative colitis: Real world outcomes from a multicenter observational cohort of Australia and Oxford
Pulusu SSR, Srinivasan A, Krishnaprasad K, Cheng D, Begun J, Keung C, Van Langenberg D, Thin L, Mogilevski T, De Cruz P, Radford-Smith G, Flanagan E, Bell S, Kashkooli S, Sparrow M, Ghaly S, Bampton P, Sawyer E, Connor S, Rizvi QUA, Andrews JM, Mahy G, Chivers P, Travis S, Lawrance IC

4442 Predictive model for acute abdominal pain after transarterial chemoembolization for liver cancer
Bian LF, Zhao XH, Gao BL, Zhang S, Ge GM, Zhan DD, Ye TT, Zheng Y

Retrospective Study

4453 Risk prediction platform for pancreatic fistula after pancreatoduodenectomy using artificial intelligence
Han IW, Cho K, Ryu Y, Shin SH, Heo JS, Choi DW, Chung MJ, Kwon OC, Cho BH

4465 Efficacy and safety of lenvatinib for patients with advanced hepatocellular carcinoma: A retrospective, real-world study conducted in China
Wang DX, Yang X, Liu JZ, Bai Y, Long JY, Yang XB, Seery S, Zhao HT

4479 High levels of serum interleukin-6 increase mortality of hepatitis B virus-associated acute-on-chronic liver failure
Zhou C, Zhang N, He TT, Wang Y, Wang LF, Sun YQ, Jing J, Zhang JJ, Fu SN, Wang X, Liang XX, Li X, Gong M, Li J

4489 Simultaneous transcatheter arterial chemoembolization and portal vein embolization for patients with large hepatocellular carcinoma before major hepatectomy
Zhang CW, Dou CW, Zhang XL, Liu XQ, Huang DS, Hu ZM, Liu J
## Contents

**Clinical Trials Study**

4501  Efficacy of a Chinese herbal formula on hepatitis B e antigen-positive chronic hepatitis B patients  
*Xing YF, Wei CS, Zhou TR, Huang DP, Zhong WC, Chen B, Jin H, Hu XY, Yang ZY, He Q, Jiang KP, Jiang JM, Hu ZB, Deng X, Yang F, Li FY, Zhao G, Wang LC, Mi YQ, Gong ZJ, Guo P, Wu JH, Shi WQ, Yang HZ, Zhou DQ, Tong GD*

**Observational Study**

4523  Predictive value of alarm symptoms in patients with Rome IV dyspepsia: A cross-sectional study  
*Wei ZC, Yang Q, Yang Q, Yang J, Tantai XX, Xing X, Xiao CL, Pan YL, Wang JH, Liu N*

**SYSTEMATIC REVIEWS**

4537  Differential diagnosis of diarrhoea in patients with neuroendocrine tumours: A systematic review  
*Khan MS, Walter T, Buchanan-Hughes A, Worthington E, Keeber L, Feuilly M, Grande E*

**CASE REPORT**

4557  Endoscopic full-thickness resection to treat active Dieulafoy's disease: A case report  
*Yu S, Wang XM, Chen X, Xu HY, Wang GJ, Ni N, Sun YX*

**LETTER TO THE EDITOR**

4564  Comment on pediatric living donor liver transplantation decade progress in Shanghai: Characteristics and risks factors of mortality  
*Akbulut S, Sahin TT, Yilmaz S*
ABOUT COVER
Editorial board member of World Journal of Gastroenterology, Dr. Naoki Hashimoto was awarded his medical degree from Kobe University in 1975 and his PhD from Hyogo Medical College in 1984. Over the last 10 years, his scientific interest has remained focused on topics related to reflux of duodenal contents inducing esophageal carcinogenesis, with his research efforts including both experimental and clinical approaches. His practical expertise encompasses biomedical imaging, surgical treatment and chemoradiotherapy for advanced esophageal cancer, and he practices in the Kindai University’s Department of Surgery. He is the recipient of many academic honors, from such esteemed groups as European Conference on General Thoracic Surgery in 2012 and World Organization for Specialized Studies of Diseases of the Esophagus (OESO) in 2013 and 2015. His academic career embodies a continual pursuit towards conducting more innovative, translational and enduring research.

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 ScicSearch®), 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: Jin-Lei Wang.

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
August 14, 2020

COPYRIGHT
© 2020 Baishideng Publishing Group Inc
LETTER TO THE EDITOR

Comment on pediatric living donor liver transplantation decade progress in Shanghai: Characteristics and risks factors of mortality

Sami Akbulut, Tevfik Tolga Sahin, Sezai Yilmaz

ORCID number: Sami Akbulut 0000-0002-6864-7711; Tevfik Tolga Sahin 0000-0002-9132-6113; Sezai Yilmaz 0000-0002-8044-0297.

Author contributions: Akbulut S and Sahin TT designed and performed the research, and analyzed the data; Akbulut S and Sahin TT wrote the letter; Yilmaz S and Akbulut S revised the letter.

Conflict-of-interest statement: All other authors have nothing to disclose.

Data sharing statement: No additional data are available.

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

Sami Akbulut, Tevfik Tolga Sahin, Sezai Yilmaz, Department of Surgery and Liver Transplant Institute, Inonu University Faculty of Medicine, Malatya 44280, Turkey

Corresponding author: Sami Akbulut, MD, Associate Professor, Department of Surgery and Liver Transplant Institute, Inonu University Faculty of Medicine, Elazig Yolu 10. Km, Malatya 44280, Turkey. akbulutsami@gmail.com

Abstract

Since the first successful liver transplantation was performed five decades ago, pediatric liver transplantation has become the gold standard treatment choice for pediatric liver disease, including metabolic diseases, liver tumors, and some acute liver failure. With improvements in immunosuppression, surgical techniques, and postoperative medical care, long-term outcomes of patients after liver transplantation have markedly improved, especially in pediatric patients.

Key words: Pediatric end stage liver disease; Living donor pediatric liver transplantation; Survival analysis; Risk factors; Living donor liver transplantation; Outcomes

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

Core tip: With improvements in immunosuppression, surgical techniques, and postoperative medical care, long-term outcomes of patients after liver transplantation have markedly improved, especially in pediatric patients. We read with great interest the recent article “Pediatric living donor liver transplantation decade progress in Shanghai: Characteristics and risks factors of mortality” published by Pan and colleagues. We would like to share our opinion and criticisms about this valuable work.

Citation: Akbulut S, Sahin TT, Yilmaz S. Comment on pediatric living donor liver transplantation decade progress in Shanghai: Characteristics and risks factors of mortality. World J Gastroenterol 2020; 26(30): 4564-4566

URL: https://www.wjgnet.com/1007-9327/full/v26/i30/4564.htm
DOI: https://dx.doi.org/10.3748/wjg.v26.i30.4564
TO THE EDITOR

We read with great interest the recent article “Pediatric living donor liver transplantation decade progress in Shanghai: Characteristics and risks factors of mortality” published by Pan et al[1]. In this retrospective observational study, the authors stated that they aimed to review the status of pediatric living donor liver transplantation (LDLT) and investigate the factors related to anesthetic management and survival rate in pediatric LDLT. We would like to share our opinion and criticisms about this valuable work.

The authors excluded 15 patients who were older than 12 years. The World Health Organization has stated that any individual younger than 19 years old should be considered in the pediatric age group. Therefore, the authors should have included all patients under the age of 18 years in the pediatric age group.

The authors analyzed four discrete time intervals in terms of survival analysis. The criteria for the choice of time interval are not clear from the author’s data. In our opinion, an ROC curve analysis would have determined the optimal time interval (years) in accordance with the survival of the patients[2]. If the time intervals were chosen arbitrarily, a probability of bias during the analysis could exist. Therefore, it is no longer important to calculate clinical cutoff points today because clinical experience is the least important data in evidence-based research[3].

Interquartile range (IQR) is the difference between the third quartile (Q3: 75%) and the first quartile (Q1: 25%) of a given variable, and therefore, IQR is supposed to be a single number. The authors have given the variable range (Q1-Q3) under IQR, which is not the IQR itself[4]. This is an important error from a statistical point of view.

The authors have stated that they have performed a multivariate analysis on the parameters that had a P value < 0.05 in univariate analysis. In our opinion, this results in the loss of certain parameters that could have been potential risk factors during the process. Other studies have shown that certain factors that were not significant in the univariate analysis could become significant risk factors in a multivariate analysis, which is the most typical example of the interaction between variables. Therefore, we suggest that any parameter with a P value between 0.1 and 0.2 should be included in the logistic regression model, which will provide a more valuable result[5-8].

The authors stated that “to identify independent predictive factors of in-hospital survival, the Chi square test with the Yates correction or the Fisher’s exact test were used”; this is statistically incorrect. Independent risk factors for any given categoric condition should always be performed using multivariate analysis methods. Any given parameter that is significant in the univariate analysis may not be an independent risk factor in the multivariate analysis.

The authors determined a cutoff value for 14 variables including age, weight, PELD score, hemoglobin level, duration of operation, and anesthesia and evaluated the relationship between these cutoff values and in-hospital mortality. The authors may have caused bias in this analysis. They should have performed an ROC curve analysis to determine optimal cutoff values with the highest sensitivity and specificity, which would result in higher reliability[9].

We believe that there are errors in the results of the statistical analyses stated. When we analyzed the results using SPSS version 25, we found the following results, which we believe should be corrected by the authors using Yates’ correction for continuity[10,11]: Anesthesia duration [P = 0.046; OR = 0.46 (0.29-0.93)], PELD score [P = 0.032; OR = 3.8 (1.15-12.5)], operation time [P = 0.006; OR = 0.38 (0.19-0.74)], ICU stay [P < 0.001; OR = 0.24 (0.11-0.52)], and intraoperative blood loss (P = 0.069).

The authors analyzed the risk factors that had an impact on 1-year and 3-year survival of the patients using univariate analysis methods. Subsequently, they selected the parameters with a P value < 0.05 and performed a Cox regression model. They did not perform a multivariate analysis for in-hospital mortality, which means they did not analyze the independent risk factors of mortality in the first postoperative 30-d period. In either case, they did not perform a multivariate analysis to determine the independent risk factors of mortality or factors that have an impact on survival at any time point.

The authors stated that PELD score, anesthesia duration, operation duration, intraoperative blood loss, and ICU length of stay were independent predictive factors of in-hospital patient survival. They also stated that PELD score, operation duration, and ICU length of stay were independent predictive factors of 1-year and 3-year patient survival. However, the authors did not perform any multivariate analysis to determine independent risk factors for in-hospital mortality. In addition, they did not calculate the odds ratio for the univariate analysis to determine the factors that affect in-hospital mortality. The authors stated that the risk factors related to postoperative 1-
year and 3-year mortality were PELD score, operation duration, and ICU length of stay. However, they did not include certain known factors such as biliary complications, infections, type and levels of immunosuppressive drugs, and episodes of acute rejection. We believe there are some major issues regarding this topic. The factors stated by the authors may have an effect on in-hospital mortality, but they do not have an impact on the long-term mortality of the patients.

Although the authors stated that they performed a propensity score analysis and found that ICU-stay predicted the 3-year survival, they did not discuss the rationale behind this finding. In other words, they did not theorize why a perioperative parameter would have an impact on a late outcome such as 3-year survival.

In summary, they provided the 30-d, 90-d, 1-year, and 2-year survival rates. In addition, they analyzed factors that had an impact on 3-year survival. If the factors that had an impact on the survival of the patients three years postoperatively, then the authors should have given the 3-year survival rate of the patients.

REFERENCES

1. Pan ZY, Fan YC, Wang XQ, Chen LK, Zou QQ, Zhou T, Qiu BJ, Lu YF, Shen CH, Yu WF, Luo Y, Su DS. Pediatric living donor liver transplantation decade progress in Shanghai: Characteristics and risks factors of mortality. *World J Gastroenterol* 2020; 26: 1352-1364 [PMID: 32256022 DOI: 10.3748/wjg.v26.i12.1352]

2. Habibzadeh F, Habibzadeh P, Yadollahie M. On determining the most appropriate test cut-off value: the case of tests with continuous results. *Biochem Med (Zagreb)* 2016; 26: 297-307 [PMID: 27812299 DOI: 10.11613/BM.2016.034]

3. Rosner AL. Evidence-based medicine: revisiting the pyramid of priorities. *J Bodyw Mov Ther* 2012; 16: 42-49 [PMID: 22196426 DOI: 10.1016/j.jbmt.2011.05.003]

4. Madadizadeh F, Ezati Asar M, Hosseini M. Common Statistical Mistakes in Descriptive Statistics Reports of Normal and Non-Normal Variables in Biomedical Sciences Research. *Iran J Public Health* 2015; 44: 1557-1558 [PMID: 26744717]

5. Daftari Besheli L, Tan CO, Bell DL, Hirsch JA, Gupta R. Temporal evolution of vasospasm and clinical outcome after intra-arterial vasodilator therapy in patients with aneurysmal subarachnoid hemorrhage. *PLoS One* 2017; 12: e0174676 [PMID: 28339483 DOI: 10.1371/journal.pone.0174676]

6. Bursac Z, Gauss CH, Williams DK, Hosmer DW. Purposeful selection of variables in logistic regression. *Source Code Biol Med* 2008; 3: 17 [PMID: 19087314 DOI: 10.1186/1751-0473-3-17]

7. Araujo RLC, Riechelmann RP. Methods and Biostatistics in Oncology. [DOI: 10.1007/978-3-319-71324-3]

8. Bagley SC, White H, Golomb BA. Logistic regression in the medical literature: standards for use and reporting, with particular attention to one medical domain. *J Clin Epidemiol* 2001; 54: 979-985 [PMID: 11576808 DOI: 10.1016/S0895-4356(01)00372-9]

9. Yates F. Contingency table involving small numbers and the χ² tests. *J Royal Statistical Society* 1934; 1: 217-35 [DOI: 10.2307/2983604]

10. Cochran WG. Some Methods for Strengthening the Common χ² Tests. *Biometrics* 1954; 10: 417-51 [DOI: 10.2307/3001616]
