

World Journal of *Clinical Cases*

World J Clin Cases 2022 October 16; 10(29): 10391-10822



Contents

Thrice Monthly Volume 10 Number 29 October 16, 2022

STANDARD AND CONSENSUS

- 10391** Baishideng's *Reference Citation Analysis* database announces the first *Article Influence Index* of multidisciplinary scholars

Wang JL, Ma YJ, Ma L, Ma N, Guo DM, Ma LS

REVIEW

- 10399** Cholecystectomy for asymptomatic gallstones: Markov decision tree analysis

Lee BJH, Yap QV, Low JK, Chan YH, Shelat VG

- 10413** Liver transplantation for hepatocellular carcinoma: Historical evolution of transplantation criteria

Ince V, Sahin TT, Akbulut S, Yilmaz S

MINIREVIEWS

- 10428** Prostate only radiotherapy using external beam radiotherapy: A clinician's perspective

Lee JW, Chung MJ

ORIGINAL ARTICLE

Retrospective Study

- 10435** Age-adjusted NT-proBNP could help in the early identification and follow-up of children at risk for severe multisystem inflammatory syndrome associated with COVID-19 (MIS-C)

Rodriguez-Gonzalez M, Castellano-Martinez A

- 10451** Clinicopathological characteristics and prognosis of gastric signet ring cell carcinoma

Tian HK, Zhang Z, Ning ZK, Liu J, Liu ZT, Huang HY, Zong Z, Li H

- 10467** Development and validation of a prognostic nomogram for decompensated liver cirrhosis

Zhang W, Zhang Y, Liu Q, Nie Y, Zhu X

Observational Study

- 10478** Effect of medical care linkage-continuous management mode in patients with posterior circulation cerebral infarction undergoing endovascular interventional therapy

Zhu FX, Ye Q

- 10487** Effect of the COVID-19 pandemic on patients with presumed diagnosis of acute appendicitis

Akbulut S, Tuncer A, Ogut Z, Sahin TT, Koc C, Guldogan E, Karabulut E, Tanriverdi ES, Ozer A

EVIDENCE-BASED MEDICINE

- 10501** Delineation of a SMARCA4-specific competing endogenous RNA network and its function in hepatocellular carcinoma

Zhang L, Sun T, Wu XY, Fei FM, Gao ZZ

SYSTEMATIC REVIEWS

- 10516** Comparison of laboratory parameters, clinical symptoms and clinical outcomes of COVID-19 and influenza in pediatric patients: A systematic review and meta-analysis

Yu B, Chen HH, Hu XF, Mai RZ, He HY

CASE REPORT

- 10529** Surgical treatment of bipolar segmental clavicle fracture: A case report

Liang L, Chen XL, Chen Y, Zhang NN

- 10535** Multiple disciplinary team management of rare primary splenic malignancy: Two case reports

Luo H, Wang T, Xiao L, Wang C, Yi H

- 10543** Klippel-Trenaunay-Weber syndrome with ischemic stroke: A case report

Lee G, Choi T

- 10550** Vedolizumab in the treatment of immune checkpoint inhibitor-induced colitis: Two case reports

Zhang Z, Zheng CQ

- 10559** Novel way of patent foramen ovale detection and percutaneous closure by intracardiac echocardiography: A case report

Han KN, Yang SW, Zhou YJ

- 10565** Treatment failure in a patient infected with *Listeria* sepsis combined with latent meningitis: A case report

Wu GX, Zhou JY, Hong WJ, Huang J, Yan SQ

- 10575** Three-in-one incidence of hepatocellular carcinoma, cholangiocellular carcinoma, and neuroendocrine carcinoma: A case report

Wu Y, Xie CB, He YH, Ke D, Huang Q, Zhao KF, Shi RS

- 10583** Intestinal microbiome changes in an infant with right atrial isomerism and recurrent necrotizing enterocolitis: A case report and review of literature

Kaplina A, Zaikova E, Ivanov A, Volkova Y, Alkhova T, Nikiforov V, Latypov A, Khavkina M, Fedoseeva T, Pervunina T, Skorobogatova Y, Volkova S, Ulyantsev V, Kalinina O, Sitkin S, Petrova N

- 10600** *Serratia fonticola* and its role as a single pathogen causing emphysematous pyelonephritis in a non-diabetic patient: A case report

Villasuso-Alcocer V, Flores-Tapia JP, Perez-Garfias F, Rochel-Perez A, Mendez-Dominguez N

- 10606** Cardiac myxoma shedding leads to lower extremity arterial embolism: A case report

Meng XH, Xie LS, Xie XP, Liu YC, Huang CP, Wang LJ, Zhang GH, Xu D, Cai XC, Fang X

- 10614** Extracorporeal membrane oxygenation in curing a young man after modified Fontan operation: A case report
Guo HB, Tan JB, Cui YC, Xiong HF, Li CS, Liu YF, Sun Y, Pu L, Xiang P, Zhang M, Hao JJ, Yin NN, Hou XT, Liu JY
- 10622** Wandering small intestinal stromal tumor: A case report
Su JZ, Fan SF, Song X, Cao LJ, Su DY
- 10629** Acute mesenteric ischemia secondary to oral contraceptive-induced portomesenteric and splenic vein thrombosis: A case report
Zhao JW, Cui XH, Zhao WY, Wang L, Xing L, Jiang XY, Gong X, Yu L
- 10638** Perioperative anesthesia management in pediatric liver transplant recipient with atrial septal defect: A case report
Liu L, Chen P, Fang LL, Yu LN
- 10647** Multiple tophi deposits in the spine: A case report
Chen HJ, Chen DY, Zhou SZ, Chi KD, Wu JZ, Huang FL
- 10655** Myeloproliferative neoplasms complicated with β -thalassemia: Two case report
Xu NW, Li LJ
- 10663** Synchronous renal pelvis carcinoma associated with small lymphocytic lymphoma: A case report
Yang HJ, Huang X
- 10670** *Leclercia adecarboxylata* infective endocarditis in a man with mitral stenosis: A case report and review of the literature
Tan R, Yu JQ, Wang J, Zheng RQ
- 10681** Progressive ataxia of cerebrotendinous xanthomatosis with a rare c.255+1G>T splice site mutation: A case report
Chang YY, Yu CQ, Zhu L
- 10689** Intravesical explosion during transurethral resection of bladder tumor: A case report
Xu CB, Jia DS, Pan ZS
- 10695** Submucosal esophageal abscess evolving into intramural submucosal dissection: A case report
Jiao Y, Sikong YH, Zhang AJ, Zuo XL, Gao PY, Ren QG, Li RY
- 10701** Immune checkpoint inhibitor-associated arthritis in advanced pulmonary adenocarcinoma: A case report
Yang Y, Huang XJ
- 10708** Chondroid syringoma of the lower back simulating lipoma: A case report
Huang QF, Shao Y, Yu B, Hu XP
- 10713** Tension-reduced closure of large abdominal wall defect caused by shotgun wound: A case report
Li Y, Xing JH, Yang Z, Xu YJ, Yin XY, Chi Y, Xu YC, Han YD, Chen YB, Han Y

- 10721** Myocardial bridging phenomenon is not invariable: A case report
Li HH, Liu MW, Zhang YF, Song BC, Zhu ZC, Zhao FH
- 10728** Recurrent atypical leiomyoma in bladder trigone, confused with uterine fibroids: A case report
Song J, Song H, Kim YW
- 10735** Eczema herpeticum *vs* dermatitis herpetiformis as a clue of dedicator of cytokinesis 8 deficiency diagnosis: A case report
Alshengeti A
- 10742** Cutaneous allergic reaction to subcutaneous vitamin K₁: A case report and review of literature
Zhang M, Chen J, Wang CX, Lin NX, Li X
- 10755** Perithyroidal hemorrhage caused by hydrodissection during radiofrequency ablation for benign thyroid nodules: Two case reports
Zheng BW, Wu T, Yao ZC, Ma YP, Ren J
- 10763** Malignant giant cell tumors of the tendon sheath of the right hip: A case report
Huang WP, Gao G, Yang Q, Chen Z, Qiu YK, Gao JB, Kang L
- 10772** Atypical Takotsubo cardiomyopathy presenting as acute coronary syndrome: A case report
Wang ZH, Fan JR, Zhang GY, Li XL, Li L
- 10779** Secondary light chain amyloidosis with Waldenström's macroglobulinemia and internodal marginal zone lymphoma: A case report
Zhao ZY, Tang N, Fu XJ, Lin LE
- 10787** Bilateral occurrence of sperm granulomas in the left spermatic cord and on the right epididymis: A case report
Ly DY, Xie HJ, Cui F, Zhou HY, Shuang WB
- 10794** Glucocorticoids combined with tofacitinib in the treatment of Castleman's disease: A case report
Liu XR, Tian M
- 10803** Giant bilateral scrotal lipoma with abnormal somatic fat distribution: A case report
Chen Y, Li XN, Yi XL, Tang Y
- 10811** Elevated procalcitonin levels in the absence of infection in procalcitonin-secreting hepatocellular carcinoma: A case report
Zeng JT, Wang Y, Wang Y, Luo ZH, Qing Z, Zhang Y, Zhang YL, Zhang JF, Li DW, Luo XZ

LETTER TO THE EDITOR

- 10817** "Helicobacter pylori treatment guideline: An Indian perspective": Letter to the editor
Swarnakar R, Yadav SL
- 10820** Effect of gender on the reliability of COVID-19 rapid antigen test among elderly
Nori W, Akram W

ABOUT COVER

Editorial Board Member of *World Journal of Clinical Cases*, Natalia Stepanova, DSc, MD, PhD, Academic Research, Chief Doctor, Full Professor, Department of Nephrology and Dialysis, State Institution "Institute of Nephrology of the National Academy of Medical Sciences of Ukraine", Kyiv 04050, Ukraine. nmstep88@gmail.com

AIMS AND SCOPE

The primary aim of *World Journal of Clinical Cases* (WJCC, *World J Clin Cases*) is to provide scholars and readers from various fields of clinical medicine with a platform to publish high-quality clinical research articles and communicate their research findings online.

WJCC mainly publishes articles reporting research results and findings obtained in the field of clinical medicine and covering a wide range of topics, including case control studies, retrospective cohort studies, retrospective studies, clinical trials studies, observational studies, prospective studies, randomized controlled trials, randomized clinical trials, systematic reviews, meta-analysis, and case reports.

INDEXING/ABSTRACTING

The WJCC is now abstracted and indexed in Science Citation Index Expanded (SCIE, also known as SciSearch®), Journal Citation Reports/Science Edition, Current Contents®/Clinical Medicine, PubMed, PubMed Central, Scopus, Reference Citation Analysis, China National Knowledge Infrastructure, China Science and Technology Journal Database, and Superstar Journals Database. The 2022 Edition of Journal Citation Reports® cites the 2021 impact factor (IF) for WJCC as 1.534; IF without journal self cites: 1.491; 5-year IF: 1.599; Journal Citation Indicator: 0.28; Ranking: 135 among 172 journals in medicine, general and internal; and Quartile category: Q4. The WJCC's CiteScore for 2021 is 1.2 and Scopus CiteScore rank 2021: General Medicine is 443/826.

RESPONSIBLE EDITORS FOR THIS ISSUE

Production Editor: Hua-Ge Yin; Production Department Director: Xiang Li; Editorial Office Director: Jin-Lei Wang.

NAME OF JOURNAL

World Journal of Clinical Cases

ISSN

ISSN 2307-8960 (online)

LAUNCH DATE

April 16, 2013

FREQUENCY

Thrice Monthly

EDITORS-IN-CHIEF

Bao-Gan Peng, Jerzy Tadeusz Chudek, George Kontogeorgos, Maurizio Serati, Ja Hyeon Ku

EDITORIAL BOARD MEMBERS

<https://www.wjgnet.com/2307-8960/editorialboard.htm>

PUBLICATION DATE

October 16, 2022

COPYRIGHT

© 2022 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>



Effect of gender on the reliability of COVID-19 rapid antigen test among elderly

Wassan Nori, Wisam Akram

Specialty type: Medicine, research and experimental

Provenance and peer review: Unsolicited article; Externally peer reviewed.

Peer-review model: Single blind

Peer-review report's scientific quality classification

Grade A (Excellent): 0
Grade B (Very good): B
Grade C (Good): C
Grade D (Fair): 0
Grade E (Poor): 0

P-Reviewer: Mahmoud MZ, Saudi Arabia; Mrzljak A, Croatia

Received: July 21, 2022

Peer-review started: July 21, 2022

First decision: September 5, 2022

Revised: September 5, 2022

Accepted: September 12, 2022

Article in press: September 12, 2022

Published online: October 16, 2022



Wassan Nori, Department of Obstetrics and Gynecology, Mustansiriyah University, Baghdad 10052, Iraq

Wisam Akram, Department of Obstetrics and Gynecology, College of Medicine, Mustansiriyah University, Baghdad 10052, Iraq

Corresponding author: Wassan Nori, PhD, Academic Editor, Academic Research, Senior Researcher, Department of Obstetrics and Gynecology, Mustansiriyah University, Al Saydyia, Baghdad 10052, Iraq. dr.wassan76@uomustansiriyah.edu.iq

Abstract

Defining con-founders that affect the reliability of diagnostic tests for coronavirus disease 2019 is vital to breaking the chain of infection. The elderly population is a higher risk group for the emerging virus. However, gender seems to exert a critical role in modifying the infection risk among women owing to hormonal changes. The menopause transition is an exceptional period for older women where the protective and immunomodulatory effects of the estrogen hormone are lost. Accordingly, attention should be given to postmenopausal women since they will have an increased risk compared to their pre-menopausal peers.

Key Words: COVID-19; Rapid antigen test; Real-time reverse transcription-polymerase chain reaction; Age; Gender; Postmenopausal women

©The Author(s) 2022. Published by Baishideng Publishing Group Inc. All rights reserved.

Core Tip: One of the main strengths of coronavirus disease 2019 (COVID-19) is the limitation of tests confirming the infection. The rapid spread of the virus was accredited to false negative tests and asymptomatic carriers. The elderly are described as a high-risk group with increased morbidity and mortality rates. However, some discuss that COVID-19 is gender specific; as males suffer from a worse course of infection in comparison to age-matched females. COVID-19 diagnostic tests rely on patients' immunological responses, we aimed to verify whether gender has an effect on the test reliability and if the test performance will be different among women in their menopausal years.

Citation: Nori W, Akram W. Effect of gender on the reliability of COVID-19 rapid antigen test among elderly. *World J Clin Cases* 2022; 10(29): 10820-10822

URL: <https://www.wjgnet.com/2307-8960/full/v10/i29/10820.htm>

DOI: <https://dx.doi.org/10.12998/wjcc.v10.i29.10820>

TO THE EDITOR

With interest, we read Tabain *et al*[1] study that was published in *World J Clin Cases* 2022 and how the elderly population experienced a meaningfully lower cycle threshold (Ct) value than younger groups; thus, increasing false negative rapid antigen test (RTA) tests results[1].

Aging is a risk factor for coronavirus disease 2019 (COVID-19) severe infection, attributed to a weakened immune system exacerbated by medical co-morbidities such as diabetes and high blood pressure. Establishing confounding factors that affect the test reliability is vital to diagnosing high-risk groups[2].

However, we think an essential confounder was missed in the study; the authors in Table 1 (<https://www.wjgnet.com/2307-8960/full/v10/i19/6456.htm>). Perceptions of false-ve RAT detection tests and reverse transcription polymerase chain reaction (RT-PCR) cycle values based on age groups are described. In addition, they showed the number and percent of female patients tested alongside the overall numbers and percent without addressing the male patients' numbers and percentages, *i.e.*, the effect of gender on the results presented was not addressed. A calculation was made of the total female to male ratio, and a simple Chi-square test was conducted. The analysis highlighted a significant difference ($P = 0.021$) between female numbers and percentages *vs* males, particularly among the 19–65 year age group [698 (58.46%) *vs* 496 (41.54%)]. As for the results of other subgroups, the numbers were comparable.

In most regions of the globe, males have a higher confirmed and fatality ratio than females[3]. This gender disparity in COVID-19 infections can be linked to a variety of reasons. Women's immune systems detect infections a bit earlier than those of men; females display higher innate and adaptive immunological responses than males due to the greater number of immune-related genes on the X chromosome. Additionally, the COVID-19 virus relies on angiotensin-converting enzyme 2 (ACE2) to enter the host cell; unfortunately, males have a higher ACE2 than females[4]. As a result, men may be more susceptible to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) than women. Compared to men the same age, pre-menopausal women are less likely to get COVID-19, which points to the role of sex hormones[5].

The immunomodulatory effects of estrogen on cardiovascular, metabolic, and viral infections have already been discussed[6,7], and COVID-19 viruses are no exception. Estrogens influence pro-inflammatory signaling pathways and have significant anti-inflammatory and immunomodulatory effects in SARS-CoV-2 infection. While young women have lower risks of severe COVID-19, this protection is lost throughout the menopausal transition and women become comparable to men in infection risk[2].

In good agreement with the aforementioned work[2,5], estradiol therapy was used in symptomatic postmenopausal women with confirmed SARS-CoV-2 infection and proved valuable in non-severe cases. D-dimer, IL-6, and C-reactive protein levels were found to be lower. The authors declared a meaningful difference in the rate of-ve RT-PCR in the estradiol group *vs* the controls ($P = 0.007$; $P = 0.026$) on days five and seven of the admission[8].

For that, we think that adding an age-reference sub-group from 19-50 and 50–65 years will better explore the effect of aging on the female gender. Moreover, adding the patients' gender and examining its effect on the false negative RTA and RT-PCR might reveal a new prospect of estrogen deficiency in postmenopausal women.

ACKNOWLEDGEMENTS

To our beloved university; Mustansiriyah for continuous support.

FOOTNOTES

Author contributions: Nori W and Akram W designed research and analyzed data; Nori W wrote the letter; Akram W revised the letter; both authors have read and agreed on the final version of the manuscript.

Conflict-of-interest statement: All the authors report no relevant conflicts of interest for this article.

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: <https://creativecommons.org/licenses/by-nc/4.0/>

Country/Territory of origin: Iraq

ORCID number: Wassan Nori 0000-0002-8749-2444; Wisam Akram 0000-0002-1968-7004.

S-Editor: Fan JR

L-Editor: A

P-Editor: Fan JR

REFERENCES

- 1 **Tabain I**, Cucevic D, Skreb N, Mrzljak A, Ferencak I, Hruskar Z, Mistic A, Kuzle J, Skoda AM, Jankovic H, Vilibic-Cavlek T. Field evaluation of COVID-19 rapid antigen test: Are rapid antigen tests less reliable among the elderly? *World J Clin Cases* 2022; **10**: 6456-6463 [PMID: 35979325 DOI: 10.12998/wjcc.v10.i19.6456]
- 2 **Tazerji SS**, Shahabinejad F, Tokasi M, Rad MA, Khan MS, Safdar M, Filipiak KJ, Szarpak L, Dzieciatkowski T, Jurgiel J, Duarte PM, Rahman MT, Sobur MA, Islam MS, Ahmed A, Shaheen MNF, Shehata AA, Gharieb R, Fawzy M, Malik YS, Jaganathasamy N, Rajendran VO, Subbaram K, Ali PSS, Ali S, Rehman SU, Ozaslan M, Khan G, Saeed M, Younas U, Imran S, Junejo Y, Arabkarami P, Hogan U, Rodriguez-Morales AJ. Global data analysis and risk factors associated with morbidity and mortality of COVID-19. *Gene Rep* 2022; **26**: 101505 [PMID: 35071820 DOI: 10.1016/j.genrep.2022.101505]
- 3 **Mukherjee S**, Pahan K. Is COVID-19 Gender-sensitive? *J Neuroimmune Pharmacol* 2021; **16**: 38-47 [PMID: 33405098 DOI: 10.1007/s11481-020-09974-z]
- 4 **Ni W**, Yang X, Yang D, Bao J, Li R, Xiao Y, Hou C, Wang H, Liu J, Xu Y, Cao Z, Gao Z. Role of angiotensin-converting enzyme 2 (ACE2) in COVID-19. *Crit Care* 2020; **24**: 422 [PMID: 32660650 DOI: 10.1186/s13054-020-03120-0]
- 5 **Al-Lami RA**, Urban RJ, Volpi E, Algburi AMA, Baillargeon J. Sex Hormones and Novel Corona Virus Infectious Disease (COVID-19). *Mayo Clin Proc* 2020; **95**: 1710-1714 [PMID: 32753145 DOI: 10.1016/j.mayocp.2020.05.013]
- 6 **Badr Roomi A**, Nori W, Mokram Hamed R. Lower Serum Irisin Levels Are Associated with Increased Osteoporosis and Oxidative Stress in Postmenopausal. *Rep Biochem Mol Biol* 2021; **10**: 13-19 [PMID: 34277864 DOI: 10.52547/rbmb.10.1.13]
- 7 **Nori W**, Hameed BH, Thamir AR, Fadhil A. COVID-19 in Pregnancy: Implication on Platelets and Blood Indices. *Rev Bras Ginecol Obstet* 2021; **43**: 595-599 [PMID: 34547793 DOI: 10.1055/s-0041-1733912]
- 8 **Seth S**, Sharma R, Mishra P, Solanki HK, Singh M. Role of Short-Term Estradiol Supplementation in Symptomatic Postmenopausal COVID-19 Females: A Randomized Controlled Trial. *J Midlife Health* 2021; **12**: 211-218 [PMID: 34759703 DOI: 10.4103/jmh.JMH_57_21]



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

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

<https://www.wjgnet.com>

