GUIDELINE INTERPRETATION

1375 Influence of SCENIC recommendations on terminology used for histopathologic diagnosis of inflammatory bowel disease-associated dysplasia
Li Y, Wang HL

REVIEW

1388 KAI1/CD82 gene and autotaxin-lysophosphatidic acid axis in gastrointestinal cancers
Wang S, Chen J, Guo XZ

1406 Poorly cohesive cells gastric carcinoma including signet-ring cell cancer: Updated review of definition, classification and therapeutic management
Drubay Y, Nuytens F, Renaud F, Adenis A, Eveno C, Piessen G

1429 Lymph node regression grading of locally advanced rectal cancer treated with neoadjuvant chemoradiotherapy
He L, Xiao J, Zheng P, Zhong L, Peng Q

MINIREVIEWS

1446 Immunotherapy in biliary tract cancers: Current evidence and future perspectives
Uson Junior PLS, Araujo RL

1456 Crosstalk between gut microbiota and COVID-19 impacts pancreatic cancer progression
Zhang CY, Liu S, Yang M

1469 Angiogenesis in gastrointestinal stromal tumors: From bench to bedside
Papadakos SP, Tsagkaris C, Papadakis M, Papazoglou AS, Moysidis DV, Zografos CG, Theocharis S

1478 Stereotactic radiotherapy for intrahepatic cholangiocarcinoma
Borakati A, Froghi F, Bhogal RH, Mavroidis VK

1490 How the COVID-19 pandemic has affected the colorectal cancer screening in Italy: A minireview

ORIGINAL ARTICLE

Basic Study

1499 Safety and feasibility of irreversible electroporation for the pancreatic head in a porcine model
Yan L, Liang B, Feng J, Zhang HY, Chang HS, Liu B, Chen YL
Contents

Retrospective Cohort Study
1510 Second-line therapy for advanced hepatocellular carcinoma with regorafenib or cabozantinib: Multicenter French clinical experience in real-life after matching

Retrospective Study
1528 Profiling of gene fusion involving targetable genes in Chinese gastric cancer
Liu ZH, Zhu BW, Shi M, Qu YR, He XJ, Yuan HL, Ma J, Li W, Zhao DD, Liu ZC, Wang BM, Wang CY, Tao HQ, Ma TH

1540 Adjuvant chemoradiotherapy vs adjuvant chemotherapy in locally advanced Siewert type II/III adenocarcinoma of gastroesophageal junction after D2/R0 resection

Observational Study
1552 Duodenal-type follicular lymphoma more than 10 years after treatment intervention: A retrospective single-center analysis
Saito M, Mori A, Tsukamoto S, Ishio T, Yokoyama E, Izumiyama K, Morioka M, Kondo T, Sugino H

1562 Evaluation of the diagnostic value of serum-based proteomics for colorectal cancer
Wang HJ, Xie YB, Zhang PJ, Jiang T

1574 RASSF1A methylation as a biomarker for detection of colorectal cancer and hepatocellular carcinoma
Li J, Li H, Run ZC, Wang ZL, Jiang T, An Y, Li Z

CASE REPORT
1585 Ewing sarcoma of the ileum with wide multiorgan metastases: A case report and review of literature
Guo AW, Liu YS, Li H, Yuan Y, Li SX

LETTER TO THE EDITOR
1594 Exosomes: Promising biomarkers and targets for cancer
Fang Z, Ding YX, Li F

1597 Colitis and colorectal tumors should be further explored and differentiated
Xu DH, Zhou B, Li ZP, He LP, Wang XJ

1600 Acute or chronic inflammation role in gastrointestinal oncology
Chen HJ, Liang GY, Chen X, Du Z
ABOUT COVER
Editorial Board Member of *World Journal of Gastrointestinal Oncology*, Meng Zhou, PhD, Professor, School of Biomedical Engineering, Wenzhou Medical University, Wenzhou 325027, Zhejiang Province, China. zhoumeng@wmu.edu.cn

AIMS AND SCOPE
The primary aim of *World Journal of Gastrointestinal Oncology* (WJGO, *World J Gastrointest Oncol*) is to provide scholars and readers from various fields of gastrointestinal oncology with a platform to publish high-quality basic and clinical research articles and communicate their research findings online.

*WJGO* mainly publishes articles reporting research results and findings obtained in the field of gastrointestinal oncology and covering a wide range of topics including liver cell adenoma, gastric neoplasms, appendiceal neoplasms, biliary tract neoplasms, hepatocellular carcinoma, pancreatic carcinoma, cecal neoplasms, colonic neoplasms, colorectal neoplasms, duodenal neoplasms, esophageal neoplasms, gallbladder neoplasms, etc.

INDEXING/ABSTRACTING
The *WJGO* is now abstracted and indexed in PubMed, PubMed Central, Science Citation Index Expanded (SCIE, also known as SciSearch®), Journal Citation Reports/Science Edition, 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 *WJGO* as 3.404; IF without journal self cites: 3.357; 5-year IF: 3.250; Journal Citation Indicator: 0.53; Ranking: 162 among 245 journals in oncology; Quartile category: Q3; Ranking: 59 among 93 journals in gastroenterology and hepatology; and Quartile category: Q3. The *WJGO*’s CiteScore for 2021 is 3.6 and Scopus CiteScore rank 2021: Gastroenterology is 72/149; Oncology is 203/360.

RESPONSIBLE EDITORS FOR THIS ISSUE
Production Editor: Ying-Yi Yuan; Production Department Director: Xiang Li; Editorial Office Director: Jia-Ru Fan.

NAME OF JOURNAL
*World Journal of Gastrointestinal Oncology*

ISSN
ISSN 1948-5204 (online)

LAUNCH DATE
February 15, 2009

FREQUENCY
Monthly

EDITORS-IN-CHIEF
Monjur Ahmed, Florin Burada

EDITORIAL BOARD MEMBERS

PUBLICATION DATE
August 15, 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.fiapublishing.com
Exosomes: Promising biomarkers and targets for cancer

Zhen Fang, Yi-Xuan Ding, Fei Li

Specialty type: Oncology

Provenance and peer review: Invited 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, B
Grade C (Good): C
Grade D (Fair): 0
Grade E (Poor): 0

P-Reviewer: Habashy HO, Egypt; Manojlovic N, Serbia; Toyoshima O, Japan

Received: February 17, 2022
Peer-review started: February 17, 2022
First decision: April 17, 2022
Revised: April 25, 2022
Accepted: July 19, 2022
Article in press: July 19, 2022
Published online: August 15, 2022

Abstract

The review article entitled "Exosomes as potential diagnosis and treatment for liver cancer" recently published in World Journal of Gastrointestinal Oncology 2022; 14: 334-347 concluded that exosomes can be used as effective biomarkers or therapeutic biotargets in liver cancer. Exosomes are a hot spot in the field of tumor diagnosis and treatment research. We had also previously published a review on exosomes and tumors. In this letter to the editor, we summarize the clinical application prospects and current challenges of exosomes.

Key Words: Exosomes; Cancer; Biomarkers; Diagnosis; Therapy

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

Core Tip: Exosomes have been shown to be major transmitters of cell-to-cell communication. Several advantageous features make exosomes effective therapeutic targets for cancer and ideal vehicles for drug delivery. This letter highlights the opportunities and challenges for clinical study and application of exosomes.

Citation: Fang Z, Ding YX, Li F. Exosomes: Promising biomarkers and targets for cancer. World J Gastrointest Oncol 2022; 14(8): 1594-1596
URL: https://www.wjgnet.com/1948-5204/full/v14/i8/1594.htm
DOI: https://dx.doi.org/10.4251/wjgo.v14.i8.1594

TO THE EDITOR

We read with great interest the systematic review "Exosomes as potential diagnosis and treatment for liver cancer" recently published in World J Gastrointest Oncol 2022; 14: 334-347[1]. The authors conducted a literature search to identify potential diagnostic and therapeutic markers of exosomes in liver cancer. Forty potential liver cancer...
Roles of exosomes in cancer

Fang Z et al. Roles of exosomes in cancer

Figure 1 Schematic diagram of exosome drug delivery system.

Exosomes, first discovered in 1983, are small lipid bilayer vesicles with a diameter of 40-160 nm, which are found in body fluids such as blood, urine, saliva, and cerebrospinal fluid[2]. Exosomes contain many biomolecules, including membrane-bound proteins, soluble proteins, lipids, DNA, microRNAs and non-coding RNAs[3]. In recent years, studies have found that exosomes are involved in intercellular communication in many physiological processes in the body, and play a crucial role in mediating tumorigenesis, development and metastasis[4-6]. Tumor-derived exosomes convey tumorigenic information and contribute to the tumor microenvironment for tumor proliferation and metastasis, and are a promising biomarker for cancer therapy[2]. The unique characteristics of tumor cell-derived exosomes make them potential biomarkers for early cancer diagnosis, tracking cancer patient’s response to therapy, and detecting mechanisms of resistance to therapy, and making important contributions to precise and personalized cancer therapy.

A variety of cancer cell-specific proteins, lipids, DNA, RNA and metabolites can be isolated from cancer cell-derived exosomes, which can be used as cancer biomarkers[3]. Studies have reported that exosome-associated glypican-1 (GPC1) is a diagnostic biomarker for early pancreatic cancer[7]. Circulating exosome-derived IncRNA-GC1 can be used as a biomarker to detect early gastric cancer and monitor disease progression[8]. Tumor cell-specific molecules in exosomes can be used for early diagnosis and detection of cancer recurrence.

Exosomes have natural delivery capabilities as carriers for cancer therapeutics and functional RNAs[9]. Compared with traditional nanomaterial carriers, exosomes have the advantages of high bioavailability, non-cytotoxicity and non-immunogenicity. Transmembrane and membrane-anchored proteins within exosomes enhance endocytosis, thereby facilitating transfer of chemotherapeutics. Studies have found that neutrophil-derived exosomes deliver chemotherapeutics across the blood-brain barrier and effectively inhibit tumor growth[10]. Exosomes have the characteristics of small size, strong penetration and high biological stability. Using exosomes to deliver drugs or adding inhibitory immune checkpoints on the surface of exosomes to further enhance the anti-cancer effect is a new direction for exosomes in cancer treatment. In the future, exosome-based drug delivery systems are expected to be widely used in cancer therapy (Figure 1).

With the deepening of exosome research, a more comprehensive understanding of exosomes has been achieved, but there are still factors that restrict exosome research and clinical application. For example, the large-scale extraction, isolation and purification of exosomes are limited. At present, the exosome extraction method is mainly ultracentrifugation, but with low yield and high cost, thus it is difficult to achieve industrial production and large-scale clinical application.

In conclusion, much progress has been made in the field of exosome research, but the obstacles hindering the widespread clinical application of exosomes should also be highly concerned. The great prospect of exosomes for cancer diagnosis and treatment is undeniable.

FOOTNOTES

Author contributions: Fang Z and Ding YX wrote the manuscript; Li F designed the study; and All authors have read and approve the final manuscript.

Conflict-of-interest statement: All 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:** China

**ORCID number:** Zhen Fang 0000-0002-7073-8997; Yi-Xuan Ding 0000-0001-6752-9660; Fei Li 0000-0002-6402-6811.

**S-Editor:** Ma YJ

**L-Editor:** A

**P-Editor:** Ma YJ

**REFERENCES**
