

**Name of Journal:** *World Journal of Gastroenterology*

**Manuscript NO:** 62480

**Manuscript Type:** ORIGINAL ARTICLE

*Retrospective Study*

**Prediction of microvascular invasion in solitary hepatocellular carcinoma  $\leq$  5 cm based on computed tomography radiomics**

CT radiomics predict MVI of HCC

## Abstract

### BACKGROUND

Liver cancer is one of the most common malignant tumors, and ranks as the fourth leading cause of cancer death worldwide. Microvascular invasion (MVI) is considered as one of the most important factors of recurrence and poor prognosis of liver cancer. Thus, accurately identifying MVI before surgery is of great importance in making treatment strategies and predicting the prognosis.

## Match Overview

1	<b>Crossref</b> 55 words Wei Zhao, Wenguang Liu, Huaping Liu, Xiaoping Yi, Jiale Hou, Yigang Pei, Hui Liu, Deyun Feng, Liyu Liu, Wenzheng Li.	2%
2	<b>Crossref</b> 44 words Hai-ling Zha, Min Zong, Xin-pei Liu, Jia-zhen Pan, Hui Wang, Hai-yan Gong, Tian-song Xia, Xiao-an Liu, Cui-ying Li. "Preop	2%
3	<b>Crossref</b> 30 words Yi-Quan Jiang, Su-E Cao, Shilei Cao, Jian-Ning Chen et al. "Preoperative identification of microvascular invasion in hep ...	1%
4	<b>Crossref</b> 30 words Hui Zhao, Ye Hua, Zhihua Lu, Shen Gu, Laifa Zhu, Yuan Ji, Yandong Qiu, Tu Dai, Huihan Jin. "Prognostic value and preoper	1%
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## [Prediction of microvascular invasion of hepatocellular ...](#)

<https://www.birpublications.org/doi/full/10.1259/bjr/65897774>

Objective: The aim of this study was to diagnose **microvascular invasion** in patients with **solitary hepatocellular carcinoma** (HCC) from pre-operative **CT** imaging. Methods: 102 patients with **solitary** HCC who underwent curative hepatectomy were retrospectively included in our study. The pre-operative 3-phase **CT** imaging and laboratory data for the 102 patients were reviewed.

**Cited by:** 72

**Author:** Chou Ct, Chen Rc, Lee Cw, Ko Cj, Wu Hk, Ch...

**Publish Year:** 2012

## [Comparison of MRI and CT for the Prediction of ...](#)

<https://pubmed.ncbi.nlm.nih.gov/33622022>

Data conclusion: **CT** and **MRI** had a comparable **predictive** performance for **MVI in solitary HCC**. The RS of **MRI** only had significant added value for **predicting MVI in HCC** of 2-5 cm. Level of evidence: 3  
TECHNICAL EFFICACY: Stage 2.

## [Prediction of Microvascular Invasion of Hepatocellular ...](#)

<https://www.ajronline.org/doi/10.2214/AJR.13.10595>

Histopathologic evidence of vascular tumor **invasion** is a well-known prognostic factor for patients who have undergone hepatic resection or liver transplant for the treatment of **hepatocellular carcinoma** (HCC) [1–4]. Macrovascular **invasion**, which is easily diagnosed using routine cross-sectional imaging, is a relative contra-indication for surgery and transplant.

**Cited by:** 105

**Author:** Chen-Te Chou, Ran-Chou Chen, Wei-Chan L...

**Publish Year:** 2014

## [Comparison of MRI and CT for the Prediction of ...](#)

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### Comparison of MRI and CT for the Prediction of ...

<https://pubmed.ncbi.nlm.nih.gov/33622022>

Background: **Computed tomography (CT)** and **magnetic resonance imaging (MRI)** are both capable of **predicting microvascular invasion (MVI) in hepatocellular carcinoma (HCC)**. However, which modality i...

### Comparison of MRI and CT for the Prediction of ...

<https://onlinelibrary.wiley.com/doi/10.1002/jmri.27575>

Computed tomography (CT) and magnetic resonance imaging (MRI) are both capable of **predicting microvascular invasion (MVI) in hepatocellular carcinoma (HCC)**. However, which modality is better is...

### Prediction of microvascular invasion of hepatocellular ...

<https://cancerimagingjournal.biomedcentral.com/...> ▾

Aug 18, 2020 · To investigate the potential value of volumetric iodine quantification using preoperative dual-energy **computed tomography (DECT)** for predicting **microvascular invasion (MVI)** of **hepatocellular...**

**Author:** Taek Min Kim, Taek Min Kim, Jeong Min... **Publish Year:** 2020

### Preoperative Prediction of Microvascular Invasion in ...

<https://www.frontiersin.org/articles/10.3389/fonc.2021.633596> ▾

Objectives To systematically evaluate and compare the predictive capability for **microvascular invasion (MVI) in hepatocellular carcinoma (HCC)** patients based on **radiomics** from multi-parametric MRI (mp-...

**Author:** Yang Zhang, Zhenyu Shu, Qin Ye, Junfa ... **Publish Year:** 2021

### Preoperative Prediction of Microvascular Invasion in ...

<https://europepmc.org/article/PMC/PMC7968223> ▾

Europe PMC is an archive of life sciences journal literature. Objectives To systematically evaluate and compare the predictive capability for **microvascular invasion (MVI) in hepatocellular carcinoma (HCC)**...

### (PDF) Preoperative Prediction of Microvascular Invasion of ...

[https://www.researchgate.net/publication/337246946\\_Preoperative\\_Prediction\\_of...](https://www.researchgate.net/publication/337246946_Preoperative_Prediction_of...)

Background: To evaluate the accuracy of **radiomics** algorithm based on original radio frequency (ORF) signals for prospective **prediction of microvascular invasion (MVI) in hepatocellular carcinoma** ...

### Preoperative Prediction of Microvascular Invasion of