



## PEER-REVIEW REPORT

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**Title:** Distinctive imaging features of liver metastasis from gastric adenocarcinoma with enteroblastic differentiation: A case report

**Provenance and peer review:** Unsolicited manuscript; Externally peer reviewed

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Scientific quality	Grade B (Very good)
Novelty of this manuscript	Grade B (Very Good)
Creativity or innovation of this manuscript	Grade B (Very Good)
Scientific significance of the conclusion in this manuscript	Grade B (Very Good)
Language quality	Grade B (Very good)
Does this manuscript describe a study of	Yes



the existing knowledge system?	
Does this manuscript report a revolutionary innovation?	Yes
Does this manuscript report an unconventional innovation?	No
Conclusion	Accept
Re-review	No
Peer-reviewer statements	Peer-Review: Anonymous
	Conflicts-of-Interest: No

### SPECIFIC COMMENTS TO AUTHORS

Gastric Cancer with Enteroblastic Differentiation (GCED) is a rare subtype of gastric adenocarcinoma characterized by its unique histopathological features and aggressive clinical behavior. This subtype often mimics yolk sac tumors due to its enteroblastic differentiation and the frequent elevation of alpha-fetoprotein (AFP) levels. These tumors often metastasize early, with the liver being a common site of secondary involvement. Radiology plays a pivotal role in the diagnosis, staging, and management of GCED with liver metastases. GCED is histologically distinct due to its enteroblastic differentiation, characterized by clear cytoplasm, papillary structures, and positivity for AFP and glypican-3 on immunohistochemistry. Elevated serum AFP levels are frequently noted, serving as a biomarker for diagnosis and disease monitoring. The tumor exhibits an aggressive clinical course, with a high propensity for vascular invasion, rapid spread, and distant metastases, most commonly to the liver and peritoneum. The liver is the most frequent site of metastasis in GCED. Hepatic metastases from GCED are often associated with poor prognosis due to extensive liver involvement and resistance to conventional chemotherapy. Liver metastases typically manifest as hypervascular lesions on imaging, reflecting their aggressive Radiological



**Baishideng  
Publishing  
Group**

7041 Koll Center Parkway, Suite  
160, Pleasanton, CA 94566, USA  
**Telephone:** +1-925-399-1568  
**E-mail:** office@baishideng.com  
**https://**www.wjgnet.com

imaging is critical for detecting liver metastases, staging the disease, and guiding treatment strategies. 1. Computed Tomography (CT) Scan • Primary Gastric Lesion: GCED may appear as a poorly defined mass in the stomach, often in the antrum, with heterogeneous enhancement due to necrosis. • Liver Metastases: Hypervascular hepatic lesions with peripheral rim enhancement are common in the arterial phase. Central necrosis may develop in larger metastases, resulting in a “target appearance” during the portal venous phase. • Lymphadenopathy: Enlarged regional lymph nodes are frequently observed, indicating disease spread. 2. Magnetic Resonance Imaging (MRI) • T1-Weighted Imaging: Liver metastases often appear hypointense. • T2-Weighted Imaging: Hyperintense signal suggests the presence of edema and necrosis. • Dynamic Contrast-Enhanced Imaging: Hypervascular metastases show arterial-phase enhancement, with washout in the venous or delayed phases. 3. Positron Emission Tomography (PET-CT) • PET-CT can identify hypermetabolic lesions, confirming the metastatic spread. It is particularly useful for detecting extrahepatic disease and evaluating treatment response. GCED with liver metastases has a grim prognosis due to its rapid progression and limited therapeutic options. The median survival for patients with liver metastases is significantly reduced, emphasizing the need for early detection and aggressive management. GCED with enteroblastic differentiation is a highly aggressive gastric cancer subtype, often presenting with liver metastases and elevated AFP levels. Radiological imaging is indispensable in its diagnosis and management. Despite advancements in imaging techniques and therapeutic strategies, the prognosis remains poor, necessitating further research into targeted therapies and early detection methods.