

# Accepted Manuscript

Impact of avascular areas, as measured by contrast-enhanced harmonic EUS, on the accuracy of fine-needle aspiration for pancreatic adenocarcinoma

Ken Kamata, Mamoru Takenaka, Shunsuke Omoto, Takeshi Miyata, Kosuke Minaga, Kentaro Yamao, Hajime Imai, Toshiharu Sakurai, Naoshi Nishida, Takaaki Chikugo, Yasutaka Chiba, Ipppei Matsumoto, Yoshifumi Takeyama, Masatoshi Kudo

PII: S0016-5107(17)32024-2

DOI: [10.1016/j.gie.2017.05.052](https://doi.org/10.1016/j.gie.2017.05.052)

Reference: YMGE 10616

To appear in: *Gastrointestinal Endoscopy*

Received Date: 13 February 2017

Accepted Date: 24 May 2017

Please cite this article as: Kamata K, Takenaka M, Omoto S, Miyata T, Minaga K, Yamao K, Imai H, Sakurai T, Nishida N, Chikugo T, Chiba Y, Matsumoto I, Takeyama Y, Kudo M, Impact of avascular areas, as measured by contrast-enhanced harmonic EUS, on the accuracy of fine-needle aspiration for pancreatic adenocarcinoma, *Gastrointestinal Endoscopy* (2017), doi: 10.1016/j.gie.2017.05.052.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Original article

Impact of avascular areas, as measured by contrast-enhanced harmonic EUS, on the accuracy of fine-needle aspiration for pancreatic adenocarcinoma

**Running title:**

EUS-guided FNA for pancreatic adenocarcinoma with avascular areas

Ken Kamata<sup>1</sup>, Mamoru Takenaka<sup>1</sup>, Shunsuke Omoto<sup>1</sup>, Takeshi Miyata<sup>1</sup>, Kosuke Minaga<sup>1</sup>, Kentaro Yamao<sup>1</sup>, Hajime Imai<sup>1</sup>, Toshiharu Sakurai<sup>1</sup>, Naoshi Nishida<sup>1</sup>, Takaaki Chikugo<sup>2</sup>, Yasutaka Chiba<sup>3</sup>, Ippei Matsumoto<sup>4</sup>, Yoshifumi Takeyama<sup>4</sup>, Masatoshi Kudo<sup>1</sup>

- 1) Department of Gastroenterology and Hepatology, Kindai University Faculty of Medicine, Osaka-sayama, Japan
- 2) Department of Pathology, Kindai University Faculty of Medicine, Osaka-sayama, Japan
- 3) Clinical Research Center, Kindai University Hospital, Osaka-sayama, Japan

Download English Version:

<https://daneshyari.com/en/article/8728415>

Download Persian Version:

<https://daneshyari.com/article/8728415>

[Daneshyari.com](https://daneshyari.com)