World Journal of Gastroenterology

Online Submissions: http://www.wjgnet.com/1007-9327office
wjg@wjgnet.com
doi:10.3748/wjg.v16.i6.785

World J Gastroenterol 2010 February 14; 16(6): 785-786
ISSN 1007-9327 (print)

Meta-analysis of capsule endoscopy in patients diagnosed or suspected with esophageal varices

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Received: November 25, 2009 Revised: January 2, 2010
Accepted: January 9, 2010
Published online: February 14, 2010

Abstract

The PillCam ESO (Given Imaging, Israel) or esophageal capsule endoscopy (ECE) is a novel technique used in the diagnostic evaluation of esophagus. Many studies have been performed to compare the accuracy of ECE against the current gold standard esophago-gastro-duodenoscopy and a meta-analysis recently published by Lu *et al* suggests that ECE may have an acceptable sensitivity and specificity in detecting esophageal varices. We would like to discuss the importance and implication of publication bias in this meta-analysis.

Key words: Capsule endoscopy; Screening varices

Peer reviewer: Atsushi Nakajima, Professor, Division of Gastroenterology, Yokohama City University Graduate School of Medicine, 3-9 Fuku-ura, Kanazawa-ku, Yokohama 236-0004, Japan

Ahn D, Guturu P. Meta-analysis of capsule endoscopy in patients diagnosed or suspected with esophageal varices. *World J Gastroenterol* 2010; 16(6): 785-786 Available from: URL: http://www.wjgnet.com/1007-9327/full/v16/i6/785.htm DOI: http://dx.doi.org/10.3748/wjg.v16.i6.785

TO THE EDITOR

In March 2009 issue of *World Journal of Gastroenterology*, Lu *et al*[1] published their interesting findings regarding the accuracy of esophageal capsule endoscopy (ECE) in detecting esophageal varices and its utility in screening and surveillance of esophageal varices. We would like to add that it is vital to comment on the presence or absence of any bias when reporting a meta-analysis as this will allow the readers to assess the strengths and weaknesses of the recommendation made. A recently published statement on preferred reporting items for systematic reviews and meta-analyses (PRISMA)[2], an evolution of the original quality of reporting of meta-analyses (QUOROM) guidelines, suggests that publication bias should be assessed while reporting meta-analyses and systematic reviews. Since publication bias was not reported in the above meta-analysis, we analyzed the data for the presence or absence of publication bias.

We assessed the publication bias using funnel plot. Funnel plots were plotted using log odds ratio *vs* standard error (Figure 1A) and log odds ratio *vs* precision (Figure 1B), both showed no evidence of publication bias. We complemented the funnel plots with Eggers test[3] and rank correlation analysis[4] and both also showed no evidence of publication bias ($P > 0.05$).

We hope that this information about the absence of publication bias in this meta-analysis will add more value to the conclusion reported in the above meta-analysis.

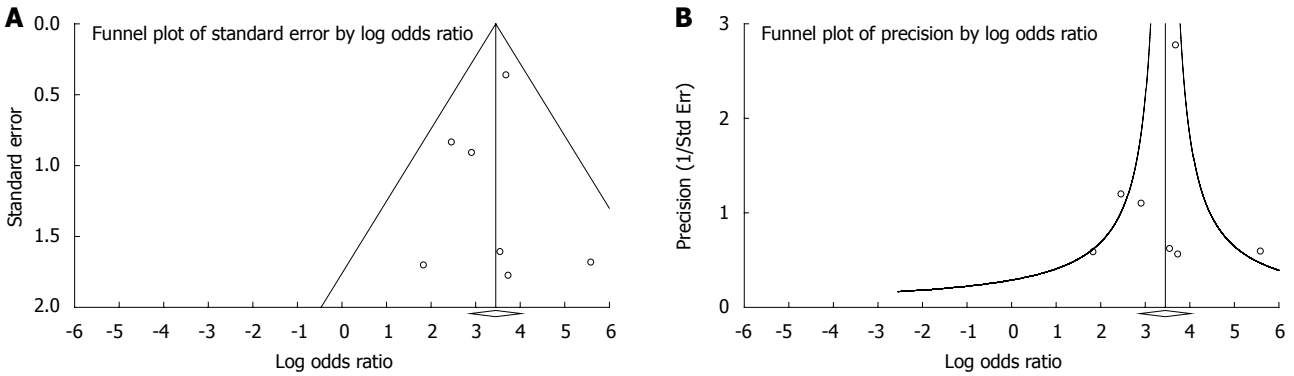

Figure 1 Funnel plot. A: Log odds ratio *vs* standard error; B: Log odds ratio *vs* precision (Precision = 1/standard error).

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S- Editor Wang JL **L- Editor** Wang XL **E- Editor** Ma WH