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Barrett's oesophagus diagnostic criteria: endoscopy and histology



Bita V. Naini, M.D., Assistant Professor of Pathology ^{a, *}, Amitabh Chak, M.D., Professor of Medicine-Gastroenterology ^{b, 1}, Meer Akbar Ali, M.D., Fellow Advanced Endoscopy ^{b, 1}, Robert D. Odze, M.D., Chief, Gastrointestinal Pathology, Professor of Pathology ^{c, 2}

ABSTRACT

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This review summarizes the endoscopic and histologic features of Barrett's oesophagus(BO) as well as some of the recent advancements and controversies. BO represents metaplastic conversion of normal squamous epithelium of tubular oesophagus to columnar epithelium. The diagnosis of BO requires a combination of endoscopic and histopathologic findings. There is worldwide controversy regarding the exact definition of BO, particularly with regard to the requirement to histologically identify goblet cells in biopsies. The presence and detectability of goblet cells might vary depending on a variety of factors and is subject to sampling error. Therefore, a systematic biopsy sampling with sufficient number of biopsies is currently recommended to limit the likelihood of a false negative result for detection of goblet cells. There are both endoscopic and pathologic challenges in evaluating gastro-oesophageal junction biopsies in patients with irregular Z lines to determine the exact location of the sample (i.e., oesophagus versus stomach).

^a David Geffen School of Medicine at UCLA, Department of Pathology & Lab Medicine, BOX 951732, 1P-172 CHS, 10833 Le Conte Ave, Los Angeles, CA 90095-1732, USA

^b University Hospitals Case Medical Ctr, 11100 Euclid Avenue, Cleveland, OH 44106, USA

^c Brigham & Women's Hospital, Pathology Department, 75 Francis St. Boston, MA 02115, USA

^{*} Corresponding author. Tel.: +1 310 825 0863; fax: +1 310 267 2058.

E-mail addresses: bnaini@mednet.ucla.edu (B.V. Naini), Amitabh.Chak@uhhospitals.org (A. Chak), Meer.Ali@uhhospitals.org (M.A. Ali), rodze@partners.org (R.D. Odze).

¹ Tel.: +1 216 844 3217; fax: +1 216 844 7480.

² Tel.: +1 617 732 7549; fax: +1 617 278 6950.

Recently, several novel endoscopic techniques have been developed to improve BO detection. However, none have been validated yet in clinical practice. The surveillance of patients with BO relies on histologic evaluation of dysplasia. However, there are significant pathologic limitations and diagnostic variability in evaluating the presence and grading of BO dysplasia, particularly with regard to the more recently recognized non-intestinal types of dysplasia. All BO dysplasia samples should be reviewed by an expert gastrointestinal pathologist to confirm the diagnosis. Finally, it is important to emphasize that close interaction between gastroenterologists and pathologists is essential to ensure proper evaluation of endoscopic biopsies in order to optimize the surveillance and clinical management of patients with BO.

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Introduction

Barrett's oesophagus (BO) is the only recognized precursor of oesophageal adenocarcinoma and at least a proportion of gastro-oesophageal junction adenocarcinomas. The diagnosis of BO requires a combination of endoscopic and histopathologic findings. On white light endoscopy, BO has a characteristic salmon colored appearance which, coupled with histological examination of oesophageal biopsy samples, confirms the diagnosis (Fig. 1). Over the last decade, there have been many advances in our understanding of the biologic characteristic of the oesophagus and gastro-oesophageal junction

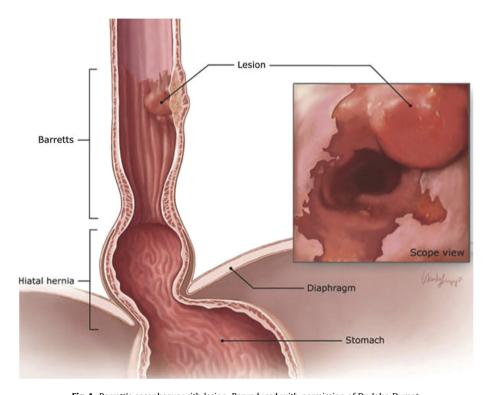


Fig. 1. Barrett's oesophagus with lesion. Reproduced with permission of Dr. John Dumot.

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