Upper Gastrointestinal Endoscopy Assessment Manual

Introduction

Radiography has been the mainstream imaging technique in health screenings, but an increasing number of institutions are introducing upper gastrointestinal endoscopy (endoscopy), even though no standard for screening has been established.

Atrophic gastritis caused by an infection with *Helicobacter pylori* (*H. pylori*) has attracted attention as a risk for gastric cancer, and the "ABC risk classification"[1] that combines serum *H. pylori* antibody testing and the pepsinogen method is being popularized. Endoscopy plays an important role as a secondary examination for this classification. In addition, the ability to determine the presence/absence of infection with *H. pylori* through appropriate recognition of gastric mucosal findings is becoming necessary.

The Japan Society of Ningen Dock published the "Screening Assessment Guideline"[2] in 2003 and the revised version[3] in 2008.

Endoscopy in health screenings should be performed safely and accurately, and the appropriate assessment of findings is important. We hope that this manual will eliminate the disparity among institutions and provide guidelines for unified high-quality endoscopy.

For details of gastroscopy screening, see the "Gastroscopy Screening Manual"[4] published by the Japanese Society of Gastrointestinal Cancer Screening.

Examination standard

Spasmolytics/sedatives

Spasmolytics/sedatives should be used in compliance with the Gastroenterological Endoscopy Guideline (Japan Gastroenterological Endoscopy Society) with sufficient safety considerations, such as placement of a monitor.

Operator

Endoscopy should be performed by an experienced endoscopist, such as a specialist certified by the Japan Gastroenterological Endoscopy Society, a specialist certified by the Japanese Society of Gastroenterology, or a physician certified by the Japanese Society of Gastrointestinal Cancer Screening.

Target organs

Esophagus, stomach, and duodenum

Image recording

The esophagus, stomach, and duodenum are comprehensively imaged, including the foci.

Biopsy

- Assessment categories may be changed based on the results of the biopsy, if performed.
- For patients taking an anticoagulant or antiplatelet medication, conduct a thorough medical interview and adequately consider the patient's safety during the biopsy (perform the biopsy in compliance with

the “Guidelines for Gastroenterological Endoscopy in Individuals under Antithrombotic Agents”[6] by the Japan Gastroenterological Endoscopy Society).

Lavage/disinfection

Clean/disinfect the scope and peripheral devices in compliance with the Gastroenterological Endoscopy Guideline (Japan Gastroenterological Endoscopy Society).[5]

Assessment

Sites

● Describe the sites that have findings

Esophagus (upper, middle, lower, and esophagogastric junction)

Stomach (fornix, cardiac region, upper body, middle body, lower body, angular region, and antrum region)

(greater curvature, lesser curvature, anterior wall, and posterior wall)

Duodenum (bulb, descending part, and papillary region)

* If there are findings in the larynx, hypopharynx, or oral cavity, describe the site and findings.

● The size and number (1, 2, 3…, several or multiple) of localized lesions should be described.

Findings (Table 1-1, 2, 3)

Findings include “suspected” lesions.

Assessment category (Table 2)

● If malignancy is suspected, report the result to the patients using a considerate mode of description (e.g., protruding lesion, depressed lesion, ulcerative lesion, and erosive lesion).

● Patients followed up without treatment or followed up postoperatively by their attending physician will be assessed as C.

If a selection of D1 or D2 cannot be determined, use the assessment category D (Medical care needed).

● Assessment category E may be used for patients currently under treatment.

● Use assessment category D1 or D2 in patients with suspected malignant tumors, at each institution’s own discretion.

Table 2 Assessment criteria

A	Normal	
B	Mild abnormality	
C	Following-up/re-examination/lifestyle instruction needed	
D (Medical care needed)	D1	Treatment needed
	D2	Thorough examination needed
E	Under treatment	

References

1) Japan gastric cancer prediction, diagnosis and treatment Research organization : Manual of Stomach cancer risk screening. Nanzando, Tokyo, 2009.

2) Yoshio Goto,Masaharu Nara : Health check criteria guidelines. Bunkodo, Tokyo, 2003

3) Kanji Komatsu, Koga Komatsu : Upper Gastrointestinal Endoscopy
Minoru Yamakado, Masahide Abe, Supervision : Yoshio Goto, Masaharu Nara : Medical checkup judgment standard guidelines [revised new version]. Bunkodo, Tokyo, 2008, 169-172.

4) Japanese Society of Gastrointestinal Cancer Screening : Stomach endoscopic examination manual. Igakushoin, Tokyo, 2010.

5) Japan Gastroenterological Endoscopy Society, Postgraduate Education Committee : Gastrointestinal endoscopy guidelines. Igakushoin, Tokyo, 2006.

6) Kazuma Fujimoto, Mitsuhiro Fujishiro, Mototsugu Kato et.al：Gastrointestinal endoscopy medical treatment guidelines for antithrombotic drug users. Gastroenterol Endosc2012；54：2073-2102.

7) Kimura K, Takemoto T : An endoscopic recognition of the atrophic border and its significance in chronic gastritis. Endoscopy 1969; 3:87-

Table 1-1. Esophagus

Endoscopic findings	Assessment category	
Advanced esophageal cancer	D	
Early esophageal cancer	D	
Esophageal dysplasia	C, D2	
Other malignant tumor	D	Describe findings
Esophageal ulcer	D	
Reflux esophagitis	B, C	Describe Los Angeles Classification (A, B, C, D)
Esophageal varices	C, D2	Describe color (Cw, C_B), form (F1, 2, 3), occupation site (Li, m, s, g), site of redness (RC), and associated esophagitis (E).
Glycogenic acanthosis	B	
Ectopic gastric mucosa	B	
Isolated venectasia	B	
Esophageal hemangioma	B, C	
Esophageal lymphangioma	C, D2	
Esophageal leiomyoma	C, D2	
Esophageal lipoma	C, D2	
Other submucosal tumor	C, D2	
Esophageal granular cell tumor	D2	
Esophageal papilloma	B	
Other benign polyp	C	
Candidal esophagitis	C	

Esophageal melanosis	C, D2	Pay attention to complications by malignant melanoma
Esophageal achalasia	C, D2	
Barrett esophagus	B, C	Describe presence/absence of SSBE* or LSBE**
Esophageal hiatus hernia	B	
Esophageal diverticulum	B	
Extramural exclusion findings	C, D2	
Other esophageal findings		Assessment category is assigned at the operator's own decision
Food residue present (observation impossible)	C	
Scope cannot be inserted		Assessment category is assigned at the operator's own decision
Normal	A	

SSBE*; short segment Barrett's esophagus, LSBE**; long segment Barrett's esophagus

Table 1-2 Stomach

Endoscopic findings	Assessment category	
Advanced gastric cancer	D	
Early gastric cancer	D	
Gastric carcinoid tumor	D	
Gastric malignant lymphoma	D	
Gastric MALT* lymphoma	D	
Other malignant tumor	D	Describe findings
Gastric adenoma	C, D	
Submucosal tumor of the stomach	C, D2	e.g., GIST**, leiomyoma/leiomyosarcoma, and submucosal ectopic gastric mucosa
≥20 mm	D2	
Gastric hyperplastic polyp	C, D2	
Fundic gland polyp	B	
Gastric ulcer	D1	Describe active stage (A1, A2) or healing stage (H1, H2)
Gastric ulcer scar	B, C	Describe scar stage (S1, S2)
Post-ESD*** scar	C, D2	
Acute gastric mucosal lesion (AGML)	D1	
Atrophic gastritis	C, D	Description of Kimura/Takemoto Classification[7] is desirable
Nodular gastritis	C, D	
Enlarged fold gastritis	C, D	
Flat erosive gastritis	C, D	
Protruding erosive gastritis	C, D	
Intestinal metaplasia	C, D	

Gastric varices	C, D2	Describe color (Cw, C_B), form (F1, 2, 3), and site of redness (RC)
Xanthoma	B	
Gastric vasodilation (angiodysplasia)	B	
Gastric diverticulum	B	
Aberrant pancreas	B	
Gastric anisakiasis	D1	
Pyloric stenosis	D2	
Extramural exclusion findings	C, D2	
Other gastric findings		Assessment category is assigned at the operator's own decision
Food residue present (observation impossible)	C	
Scope cannot be inserted		Assessment category is assigned at the operator's own decision
Normal	A	

MALT*; mucosa associated lymphoid tissue, GIST**; gastrointestinal stromal tumor, ESD***; endoscopic submucosal dissection

1) Describe whether the patient has never been or is currently infected with *H. pylori,* or has had *H. pylori* eradication, if it can be determined based on the endoscopic findings.
2) Although "red streak (Kammrotung)" may often be diagnosed as superficial gastritis, it has no histological gastritis finding, and superficial gastritis has been eliminated from the disease list. In addition, "Hematin attachment" may occasionally be considered (hemorrhagic) erosive gastritis. However, this finding is often noted in *H. pylori* negative gastric mucosa similarly to red streak, and neither is handled as endoscopic gastritis.

Table 1-3 Duodenum

Endoscopic findings	Assessment category	
Duodenal cancer/papillary carcinoma	D	
Duodenal adenoma/papillary adenoma	C, D2	
Malignant lymphoma	D	e.g., MALT* lymphoma and follicular lymphoma
Duodenal carcinoid	D	
Invasion of adjacent organ by malignant tumor	D	
Submucosal tumor	C, D2	
≥20 mm	D2	
Duodenal polyp	C, D2	
Duodenal ulcer	D1	Describe active stage (A1, A2) or healing stage (H1, H2)

Duodenal ulcer scar	B, C	Describe scar stage (S1, S2)
Duodenitis/duodenal erosion	B, C	
Ectopic gastric mucosa/gastric epithelial metaplasia	B	
Hyperplasia of Brunner`s gland	C, D2	
Duodenal stenosis	C, D2	
Duodenal diverticulum	B	
Extramural exclusion	C, D2	
Other duodenal findings		Assessment category is assigned at the operator's own decision
Scope cannot be inserted		Assessment category is assigned at the operator's own decision
Normal	A	

MALT*; mucosa associated lymphoid tissue

Japan Society of Ningen Dock

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