

ASGE: Endoscopic Submucosal Dissection for the Management of Early Esophageal and Gastric Cancers

By Fiyinfoluwa O. Abraham, MD

Background & Definitions

Endoscopic mucosal resection (EMR)
 Endoscopic submucosal dissection (ESD)

Early stage malignant tumors = **NO** locoregional or distant spread/metastasis + confined to mucosa and submucosa only

EMR vs ESD?

Indications for surgery?

1. Early stage esophageal squamous cell carcinoma (ESCC)
2. Early stage esophageal adenocarcinoma (EAC)
3. Early stage gastric adenocarcinoma (GAC)

En bloc: Entire neoplastic, dysplastic, or cancerous tissue is removed in one piece during the resection

Curative resection = clinical success for this guideline

1. R0 resection (lateral and deep margins are microscopically clear of malignant cells)
2. Resected lesion is well or moderately differentiated
3. No lymphovascular invasion
4. No deep invasion beyond submucosa

Cancer recurrence: Malignancy recurrence at site of resection or surgery (seen on pathology), or evidence of lymph node metastasis

All recommendations are conditional with low quality of evidence

Early Stage Esophageal Squamous Cell Carcinoma

🚫 Surgery is not recommended for dysplasia or early stage ESCC (without ulceration or submucosal invasion) 🚫

Tumor Characteristics:

Dysplasia or early-stage ESCC that is → well differentiated, non-ulcerated, & without submucosal invasion

Size:

>15 mm

Suggest ESD >> EMR

≤15 mm

Cannot recommend for or against either ESD or EMR 🤔

Early Stage Esophageal Adenocarcinoma

Tumor Characteristics:

Barrett's nodular dysplasia or early stage EAC (T1) that is → well differentiated & non-ulcerated

Size:

>20 mm

Suggest ESD >> EMR

≤20 mm

Cannot recommend for or against either ESD or EMR 🤔

Early Stage Gastric Adenocarcinoma

Surgical evaluation ✅ is recommended over endoscopic approaches for **poorly differentiated early stage GAC** of any size

🚫 Surgery is **NOT** recommended for **well/moderately differentiated early stage GAC, intestinal type**, that is ≤30 mm

Tumor Characteristics:

Well/moderately differentiated early stage GAC that is → non-ulcerated & intestinal type

Size:

20 – 30 mm

Suggest ESD >> EMR

<20 mm

Cannot recommend for or against either ESD or EMR 🤔

Early Stage Esophageal Squamous Cell Carcinoma: Algorithm



****Any submucosal invasion is considered non-curative due to an increased risk of LNM**

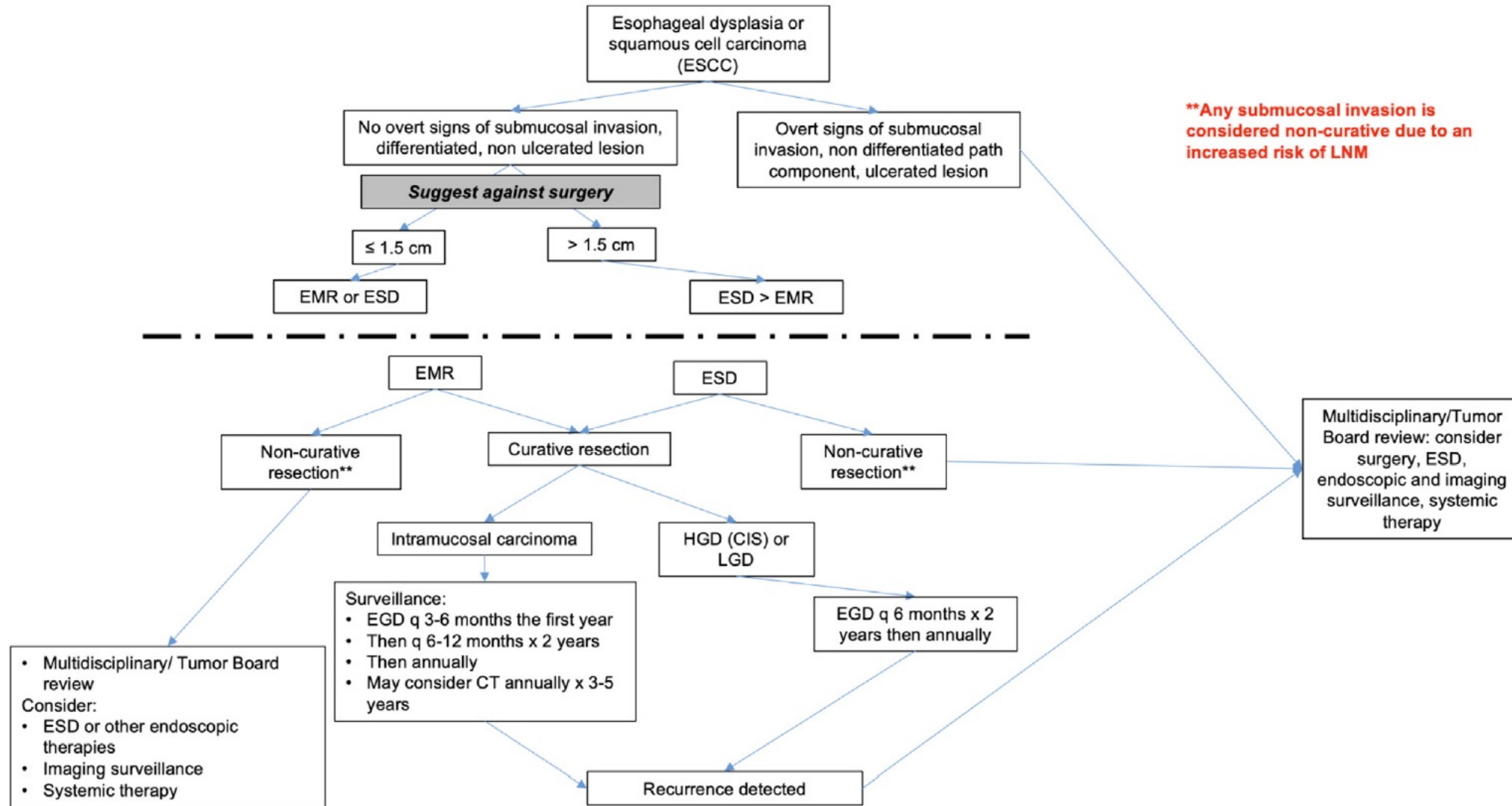


Figure 1. Recommended clinical care algorithm for patients presenting with early-stage ESCC. *ESCC*, Esophageal squamous cell carcinoma; *ESD*, endoscopic submucosal dissection; *LNM*, lymph node metastasis; *HGD*, high-grade dysplasia; *CIS*, carcinoma in situ; *LGD*, low-grade dysplasia.

Early Stage Esophageal Adenocarcinoma: Algorithm

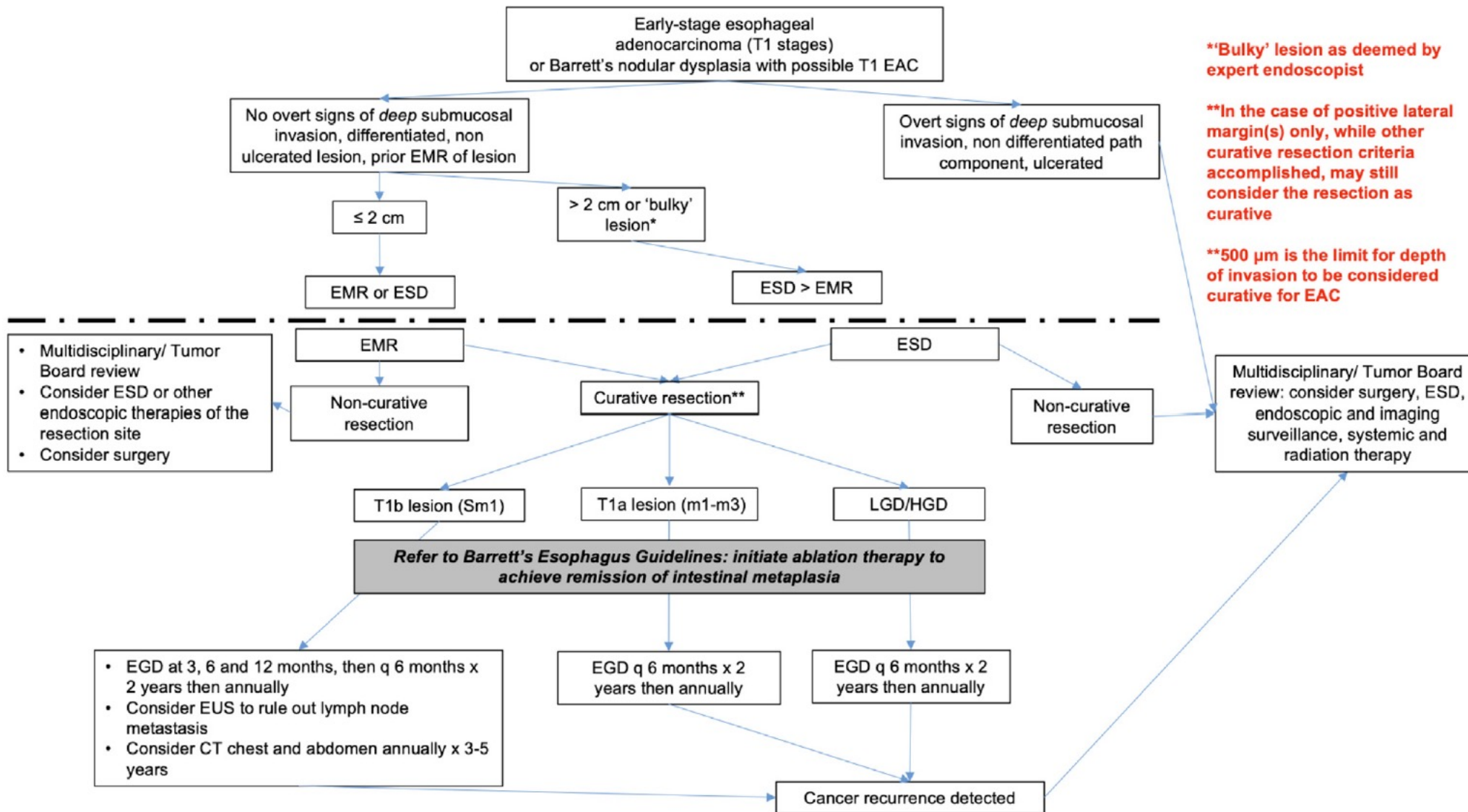


Figure 2. Recommended clinical care algorithm for patients presenting with early-stage EAC. *EAC*, Esophageal adenocarcinoma; *ESD*, endoscopic submucosal dissection; *HGD*, high-grade dysplasia; *LGD*, low-grade dysplasia.

Early Stage Gastric Adenocarcinoma: Algorithm

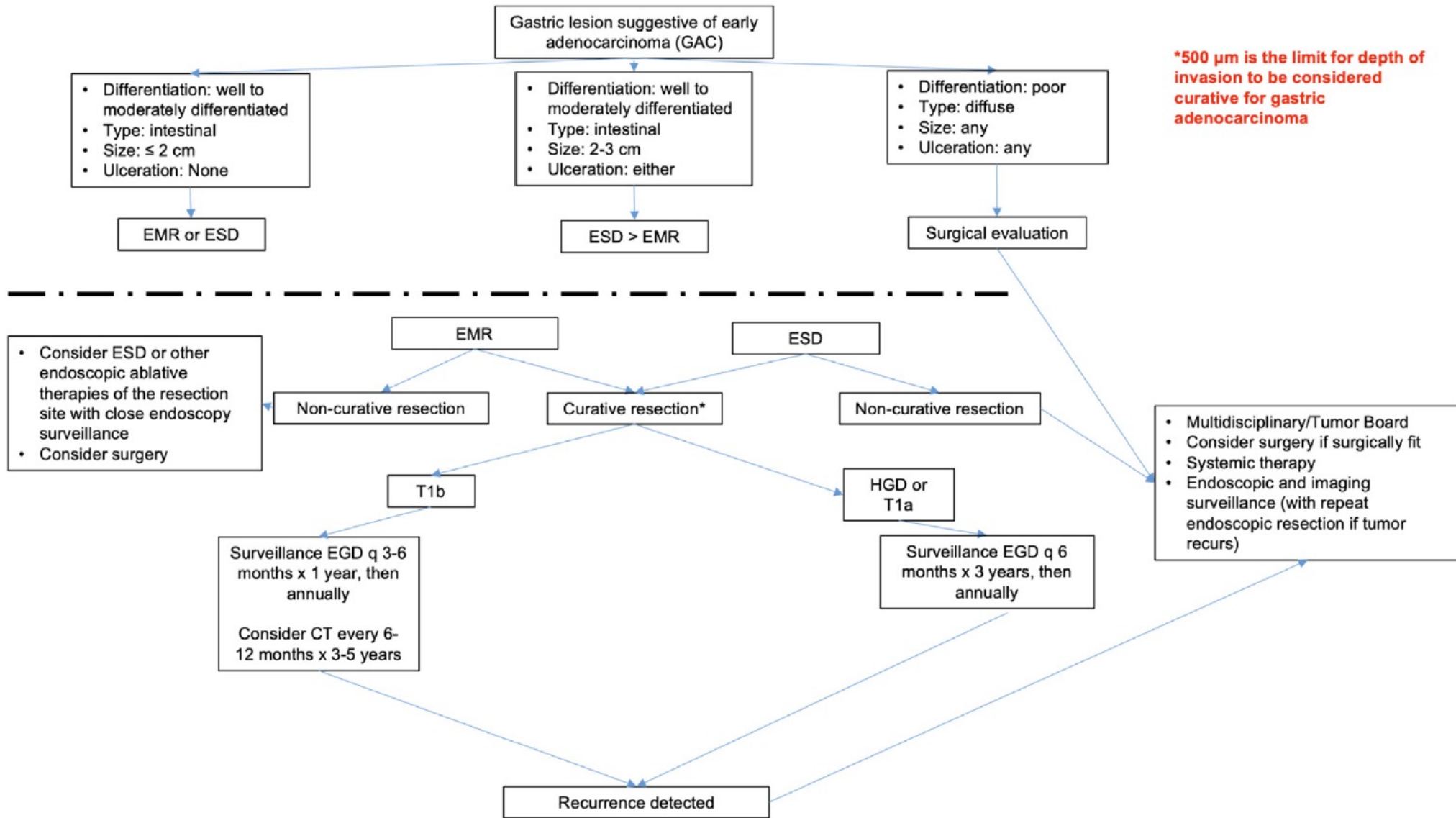


Figure 3. Recommended clinical care algorithm for patients presenting with early-stage GAC. *GAC*, Gastric adenocarcinoma; *ESD*, endoscopic submucosal dissection; *HGD*, high-grade dysplasia.