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內視鏡黏膜下切除術準則更新

Endoscopic submucosal dissection for superficial gastrointestinal lesions: European Society of Gastrointestinal Endoscopy (ESGE) Guideline – Update 2022

楊光祖醫師編譯

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Pretreatment evaluation

預先處置評估

1.ESGE recommends that the evaluation of superficial gastrointestinal lesions should be made by an experienced endoscopist, using high definition white-light and chromoendoscopy (virtual or dye-based), and validated classifications when available.
Strong recommendation, high quality evidence.
ESGE 建議應由經驗豐富的內視鏡醫師(endoscopist)評估表淺胃腸道病變，使用高畫質(高清)白光和色素內視鏡（虛擬或是染料基礎），並在可用時進行驗證分類。

2.ESGE does not recommend routine performance of endoscopic ultrasonography (EUS), computed tomography (CT), magnetic resonance imaging (MRI), or positron emission tomography CT (PET-CT) prior to endoscopic resection (ER).
Strong recommendation, moderate quality evidence.
ESGE 不建議在內視鏡切除術(ER)之前進行常規的內視鏡超音波檢查(EUS)、電腦斷層掃描(CT)、核磁共振影響(MRI)或正電子發射斷層掃描(PET-CT)。

3.ESGE suggests that when suspicious features for deep submucosal invasion are present, complete staging should be considered in order to exclude stage T2/T3 or lymph node metastasis (LNM).
Weak recommendation, low quality evidence.
ESGE 建議，當存在深部黏膜下浸潤的可疑特徵時，應考慮完整分期，以排除 T2/T3 期或淋巴結轉移(LNM)。

Therapeutic options

治療選擇

4.ESGE recommends ESD as the treatment of choice for most esophageal squamous cell and gastric (or junctional non-Barrett's) superficial lesions, mainly to provide an en bloc potentially curative resection with accurate pathologic staging.
Strong recommendation, moderate quality evidence.
ESGE 推薦 ESD 作為大多數食道鱗狀細胞和胃(或交界性非 Barrett's)表淺病變的首選治療方法，主要是為了提供具有準確病理分期的整塊潛在治癒性切除。

5.ESGE suggests that ESD might also be considered for en bloc resection of noncircumferential clinically staged T1a-m3/T1b-sm1 or circumferential clinically staged T1a-m1/m2 esophageal squamous cell carcinoma (SCC)

Weak recommendation, moderate quality evidence.

ESGE 建議 ESD 也可用於整塊切除非環週臨床分期 T1a-m3/T1b-sm1 或環週臨床分期 T1a-m1/m2 食道鱗狀細胞癌(SCC)

6.For Barrett's esophagus (BE)-associated lesions, ESGE recommends to use endoscopic mucosal resection (EMR) for≤20mm visible lesions with low probability of submucosal invasion (Paris type 0-IIa, 0-IIb) and for larger or multifocal benign (dysplastic) lesions.

Strong recommendation, high quality evidence.

對於 Barrett 食道(BE)相關病變，ESGE 建議對≤20mm (2 公分)可見且黏膜下浸潤概率低的病變(Paris 0-IIa、0-IIb 型)和較大或多病灶性良性(發育不良)病變採用內視鏡黏膜切除術(EMR)。

7.For BE-associated lesions, ESGE suggests to use ESD for lesions suspicious for submucosal invasion (Paris type 0-Is, 0-IIc), for malignant lesions >20mm, and for lesions in scarred/fibrotic areas.

Weak recommendation, low quality evidence.

對於 BE 相關病變，ESGE 建議對疑似黏膜下侵犯的病變(Paris 0-Is，0-IIc 型)、>20mm 的惡性病變以及瘢痕/纖維化區域的病變使用 ESD。

8.ESGE recommends ESD for differentiated gastric lesions clinically staged as dysplastic or as intramucosal carcinomas (of any size if not ulcerated and ≤30mm if ulcerated), with EMR being an alternative for Paris 0-IIa lesions of size ≤10mm with low likelihood of malignancy.

Strong recommendation, moderate quality evidence.

ESGE 推薦 ESD 用於臨床分期為發育不良或黏膜內癌的分化型胃病灶（如果沒有潰瘍則為任何大小，如果有潰瘍則≤30mm），EMR 則是另外的替代方案，針對≤10mm 的 Paris 0-IIa 病變的惡性腫瘤。

9.ESGE suggests that gastric adenocarcinomas that are ≤30 mm, superficial, submucosal (sm1), and well-differentiated, or ≤20 mm, intramucosal, and poorly differentiated type, both without ulcerative findings, can be considered for ESD, although the decision should be individualized.
Weak recommendation, low quality evidence.
ESGE 建議，≤30mm、表淺、黏膜下(sm1)和高分化，或≤20mm、黏膜內和低分化類型的胃腺癌，均無潰瘍發現，可考慮進行 ESD，儘管決定應個人化。

10.ESGE does not recommend routine use of ESD for duodenal or small-bowel lesions, with its use being reserved for selected cases in expert centers.
Strong recommendation, moderate quality evidence.
ESGE 不建議常規使用 ESD 治療十二指腸或小腸病變，它僅用於專家中心的特定病例。

11.ESGE recommends polypectomy and/or EMR (en bloc or piecemeal) as the treatment of choice for most duodenal and small-bowel superficial lesions.
Strong recommendation, moderate quality evidence.
ESGE 建議將息肉切除術和/或 EMR(整體或分段)作為大多數十二指腸和小腸表淺病變的治療選擇。

12.ESGE recommends polypectomy and/or EMR (en bloc or piecemeal) as the treatment of choice for most superficial colorectal lesions.
Strong recommendation, high quality evidence.
ESGE 建議將息肉切除術和/或 EMR(整體或分段)作為大多數表淺結直腸病變的治療選擇。

13.ESGE suggests that ESD should be considered for en bloc resection of colorectal (but particularly rectal) lesions with suspicion of limited submucosal invasion (demarcated depressed area with irregular surface pattern or a large protruding or bulky component, particularly if the lesions are larger than 20 mm), or for lesions that otherwise cannot be completely removed by snare-based techniques.
Weak recommendation, moderate quality evidence.
ESGE 建議對於懷疑黏膜下浸潤受限的結直腸(尤其是直腸)病變(具有不規則表面圖案的劃定凹陷區域或大的突出或龐大的成分，特別是如果病變大於 20 mm)，應考慮使用 ESD 整塊切除，或用於無法通過基於圈套器的技術完全去除的病變。

Management after ER

內視鏡切除術後的處理

Esophageal SCCs

食道鱗狀細胞癌

14.ESGE recommends that an en bloc R0 resection of a superficial esophageal squamous cell lesion with histology no more advanced than intramucosal m2 cancer, well to moderately differentiated, with no lymphovascular invasion, should be considered a very low risk (curative) resection and no further staging procedure or treatment is recommended.
Strong recommendation, moderate quality evidence.
ESGE 建議對組織學不比黏膜內 m2 癌更晚期、高至中度分化、無淋巴血管侵犯的表淺食道鱗狀細胞病變進行整塊 R0 切除，應被視為風險極低(治癒性)切除且無需進一步分期建議進行手術或治療。

15.ESGE suggests that an en bloc R0 resection of an esophageal m3 or sm1 SCC that is well to moderately differentiated and with no lymphovascular invasion, should be considered a low risk (curative) resection and no further treatment is generally recommended.
Weak recommendation, moderate quality evidence.
ESGE 建議對高度至中度分化且無淋巴血管侵犯的食道 m3 或 sm1 SCC 進行整塊 R0 切除術，應被視為低風險(治癒性)切除術，通常不建議進一步治療。

However, in these cases, particularly if the lesion is bigger than 20mm, there is a real (albeit low) risk of lymph node metastasis (LNM) and complete staging is recommended with the risk from further therapy being balanced against the risk of LNM, in a multidisciplinary discussion.
Weak recommendation, low quality evidence.
然而在這些情況下多學科討論中，特別是如果病變大於 20mm，則存在淋巴結轉移(LNM)的真實(儘管很低)風險，建議進行完整分期，並平衡進一步治療的風險與 LNM 的風險。

16.ESGE suggests that complementary radiotherapy or chemoradiotherapy (CRT) may be considered in a multidisciplinary discussion after a curative resection of esophageal m3/sm1 SCC (particularly if >20mm in size).
Weak recommendation, moderate quality evidence.
ESGE 建議在根治性切除食管 m3/sm1 SCC(特別是大小>20mm 的情況下)後，可在多學科討論中考慮補充放療或放化療(CRT)。

BE-associated lesions

巴瑞特氏食道病變

17.ESGE recommends that an en bloc R0 resection of a BE-associated superficial lesion with histology no more advanced than intramucosal cancer, well to moderately differentiated, with no lymphovascular invasion, should be considered a very low risk (curative) resection and no further staging procedure is generally recommended.
Strong recommendation, moderate quality evidence.
ESGE 建議，對組織學不比黏膜內癌更晚期、高至中度分化、無淋巴血管侵犯的 BE 相關淺表病變進行整塊 R0 切除，應被視為風險極低(治愈性)切除，無需進一步分期手術一般推薦。

18.ESGE suggests that an en bloc R0 resection of a BE-associated superficial lesion with superficial submucosal invasion (sm1), and that is well to moderately differentiated, and with no lymphovascular invasion, should be considered a low risk (curative) resection and no further treatment (except for ablation of BE tissue) is generally recommended.
Weak recommendation, moderate quality evidence.
ESGE 建議對伴有表淺黏膜下浸潤(sm1)的 BE 相關表淺病灶進行整塊 R0 切除，且分化良好至中度，無淋巴血管浸潤，應視為低風險(治愈性)切除，無需進一步切除通常建議進行治療(除了 BE 組織的消融)。

However, in these cases, there is a real (albeit low) risk of LNM, and complete staging is recommended with the risk from further therapy (surgery) being balanced against the risk of LNM, in a multidisciplinary discussion.
Weak recommendation, low quality evidence.
然而，在這些情況下，存在 LNM 的真實風險(儘管很低)，因此在多學科討論中，建議進行完整的分期，並平衡進一步治療(手術)的風險與 LNM 的風險。

19.ESGE recommends ablation of all of the Barrett's mucosa after a curative or local-risk resection.
Strong recommendation, high quality evidence.
ESGE 建議在根治性或局部風險切除後消融所有 Barrett 黏膜。

Gastric lesions

胃部病變

20.ESGE recommends that an en bloc R0 resection of a superficial gastric lesion with histology no more advanced than intramucosal cancer, well to moderately differentiated, with no lymphovascular invasion, should be considered a very low risk (curative) resection, independently of size if without ulceration or of lesions ≤30 mm if ulcerated, and no further staging procedure or treatment is generally recommended.
Strong recommendation, moderate quality evidence.
ESGE 建議對組織學不比黏膜內癌更晚期、分化良好、無淋巴血管侵犯的表淺性胃病灶進行整塊 R0 切除術，如果沒有潰瘍(與大小無關)或有潰瘍(病變≤30 mm)，則應視為風險非常低(治癒性)切除術，一般不推薦進一步的分期程序或治療。

21.ESGE suggests that an en bloc R0 resection of a ≤30 mm gastric adenocarcinoma, with superficial submucosal invasion (sm1), that is well to moderately differentiated and with no lymphovascular invasion and no ulcer, should be considered a low risk (curative) resection and no further treatment is generally recommended.
Weak recommendation, moderate quality evidence.
ESGE 建議對≤30mm (3 公分)的胃腺癌進行整塊 R0 切除，伴有表淺黏膜下浸潤(sm1)，即良好至中度分化，無淋巴血管浸潤和潰瘍，應被視為低風險(治癒性)切除術和一般不建議進一步治療。

However, in these cases there is a real (albeit low) risk of LNM and complete staging is recommended with the risk from further therapy (surgery) being balanced against the risk of LNM, in a multidisciplinary discussion.
Weak recommendation, moderate quality evidence.
然而，在這些病例中存在 LNM 的真實風險(儘管很低)，因此在多學科討論中，建議對進一步治療(手術)的風險與 LNM 的風險進行平衡，進行完整的分期。

22.ESGE suggests that an en bloc R0 resection of a ≤20 mm gastric intramucosal poorly differentiated carcinoma, with no lymphovascular invasion or ulcer, should be considered a low risk (curative) resection and no further treatment is generally recommended.
Weak recommendation, moderate quality evidence.
ESGE 建議對≤20mm (2 公分)的胃黏膜內低分化癌進行整塊 R0 切除，無淋巴血管侵犯或潰瘍，應被視為低風險(治癒性)切除術，一般不推薦進一步治療。

However, in these cases there is a real (albeit low) risk of LNM and complete staging is recommended with the risk from further therapy (surgery) being balanced against the risk of LNM, in a multidisciplinary discussion.
Weak recommendation, moderate quality evidence.
然而，在這些病例中存在 LNM 的真實風險(儘管很低)，因此在多學科討論中，建議對進一步治療(手術)的風險與 LNM 的風險進行平衡，進行完整的分期。

23.ESGE recommends that a resection of a >30 mm gastric adenocarcinoma with superficial submucosal invasion (sm1) or with ulceration should be considered a high risk (noncurative) resection and complete staging should be done and strong consideration for additional treatments (surgery) should be given on an individual basis in a multidisciplinary discussion.
Strong recommendation, moderate quality evidence.
ESGE 建議切除>30mm (3 公分)的表淺黏膜下浸潤(sm1)或伴有潰瘍的胃腺癌應被視為高風險(非治癒性)切除術，應進行完整分期，並強烈考慮額外治療(手術)在多學科討論中以個人為基礎。

Duodenal/small-bowel lesions

十二指腸/小腸病變

24.ESGE suggests that, given the lack of evidence, the same post-resection criteria as in the colon should apply to the management of duodenal and small-bowel lesions, on an individual basis and with a multidisciplinary approach.
Weak recommendation, very low quality evidence.
ESGE 建議，鑑於缺乏證據，與結腸相同的切除後標準應適用於十二指腸和小腸病變的管理，以個體為基礎並採用多學科方法。

Colorectal lesions

大腸直腸病變

25.ESGE recommends that an en bloc R0 resection of a colorectal lesion with histology no more advanced than intramucosal adenocarcinoma, well to moderately differentiated, with no lymphovascular invasion, should be considered a very low risk (curative) resection and no further staging procedure or treatment is generally recommended.
Strong recommendation, high quality evidence.
ESGE 建議對組織學不比黏膜內腺癌更晚期、分化良好、無淋巴血管侵犯的結直腸病灶進行整塊 R0 切除術，應被視為風險極低(治癒性)切除術，無需進一步分期手術或治療。

26.ESGE recommends that an en bloc R0 resection of a colorectal lesion with superficial submucosal invasion (sm1), that is well to moderately differentiated and with no lymphovascular invasion and no grade 2 or 3 budding, should be considered a low risk (curative) resection, and no further treatment is generally recommended.
Strong recommendation, high quality evidence.
ESGE 建議對具有表淺黏膜下浸潤(sm1)的大腸直腸病灶進行整塊 R0 切除，即良好至中度分化、無淋巴血管浸潤和 2 級或 3 級出芽，應被視為低風險(治癒性)切除術，一般不建議進一步治療。

27.ESGE suggests that after an en bloc R0 resection of a rectal lesion meeting the single high risk criterion of submucosal invasion deeper than sm1 (well to moderately differentiated with no lymphovascular invasion and no grade 2 or 3 budding), CRT and/or surveillance might be preferred over surgery on an individual basis in a multidisciplinary approach.
Weak recommendation, very low quality evidence.
ESGE 建議，在對滿足黏膜下浸潤深度超過 sm1 的單一高風險標準的直腸病變進行整塊 R0 切除後(良好至中度分化，無淋巴血管浸潤，無 2 或 3 級出芽)，CRT 和/或監測可能是在多學科方法中，優先於個體手術。

All organs

所有器官

28.ESGE recommends that after an endoscopic complete resection, if there is a positive horizontal margin or if resection is piecemeal, but there is no submucosal invasion and no other high risk criteria are met, this should be considered a local-risk resection and endoscopic surveillance/re-treatment is recommended rather than surgery or other additional treatment.
Strong recommendation, moderate quality evidence.
ESGE 建議在內視鏡下完全切除後，如果有陽性水平切緣或切除是零碎的，但沒有黏膜下侵犯且不符合其他高風險標準，則應考慮進行局部風險切除和內視鏡監測/建議重新治療，而不是手術或其他額外治療。

29.ESGE recommends that when there is a diagnosis of lymphovascular invasion or deeper infiltration than sm1 or positive vertical margins or undifferentiated tumor or, for colorectal lesions, grade 2 or 3 budding, that the resection should be considered a high risk (noncurative) resection; complete staging should be done and strong consideration for additional treatments (chemoradiotherapy and/or surgery) should be given, on an individual basis in a multidisciplinary discussion.
Strong recommendation, moderate quality evidence.
ESGE 建議，當診斷為淋巴血管侵犯或比 sm1 更深的浸潤或垂直切緣陽性或未分化腫瘤，或對於結直腸病變，2 或 3 級出芽時，應將切除視為高風險(非治癒性)切除；在多學科討論中，應根據個體情況進行完整的分期，並強烈考慮額外的治療(放化療和/或手術)。

Surveillance after endoscopic resection

內視鏡切除術後的監測

30.ESGE recommends scheduled endoscopic surveillance with high definition white-light and chromoendoscopy (virtual or dye-based) with biopsies of only the suspicious areas after a curative ESD.
Strong recommendation, moderate quality evidence.
ESGE 建議使用高清白光和色素內窺鏡(虛擬或基於染料)進行定期內視鏡監測，並在治癒性 ESD 後僅對可疑區域進行活檢。

31.ESGE recommends that after piecemeal resection or in the presence of positive lateral margins when criteria for additional treatment are not met, a high definition chromoendoscopy (virtual and/or dye-based) with biopsies is recommended at 3–6 months.
Weak recommendation, low quality evidence.
ESGE 建議在分段切除後或在未滿足額外治療標準時存在陽性側切緣的情況下，建議在 3-6 個月時進行具有活檢的高清色素內鏡檢查(虛擬和/或基於染料)。

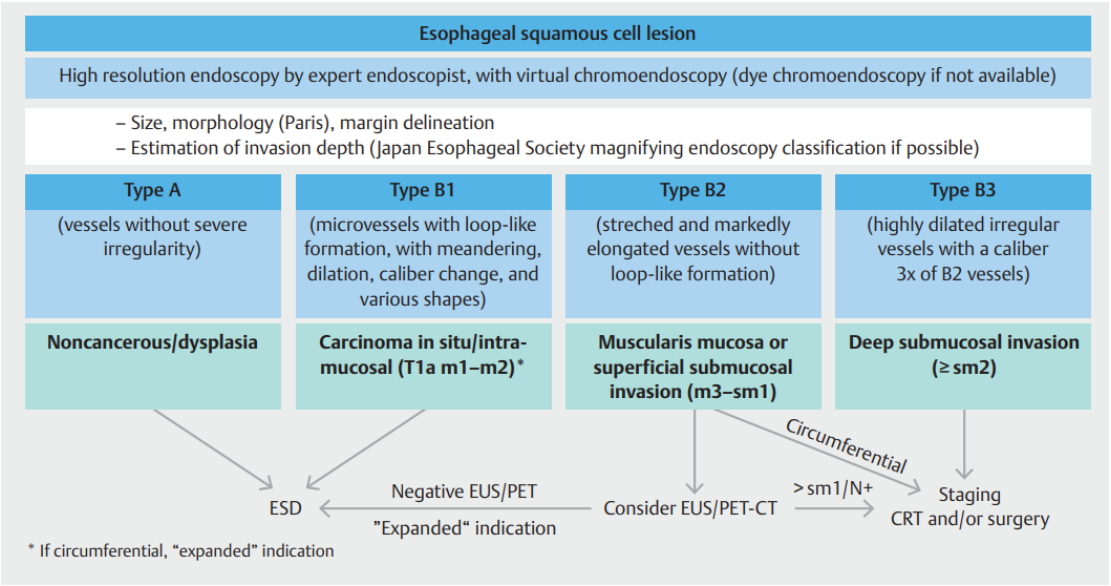
32.For upper GI superficial lesions, ESGE suggests endoscopy at 3–6 months and then annually after a curative ESD resection or after a local-risk ESD resection without recurrence.
Weak recommendation, low quality evidence.
對於上消化道表淺病變，**ESGE 建議在 3-6 個月時進行內視鏡檢查**，然後在治癒性 ESD 切除後或在沒有復發的局部風險 ESD 切除後每年進行一次。

33.ESGE suggests colonoscopy at 12 months and then further surveillance in accordance with polypectomy and colorectal cancer guidelines, after a local-risk ESD resection without recurrence or after a low or very low risk (curative) ESD of a colorectal malignant lesion.
Weak recommendation, low quality evidence.
ESGE 建議在 12 個月時進行大腸鏡檢查，然後根據息肉切除術和大腸直腸癌指南進行進一步監測，在局部風險 ESD 切除後沒有復發或在大腸直腸惡性病變的低風險或極低風險(治癒性)ESD 之後。

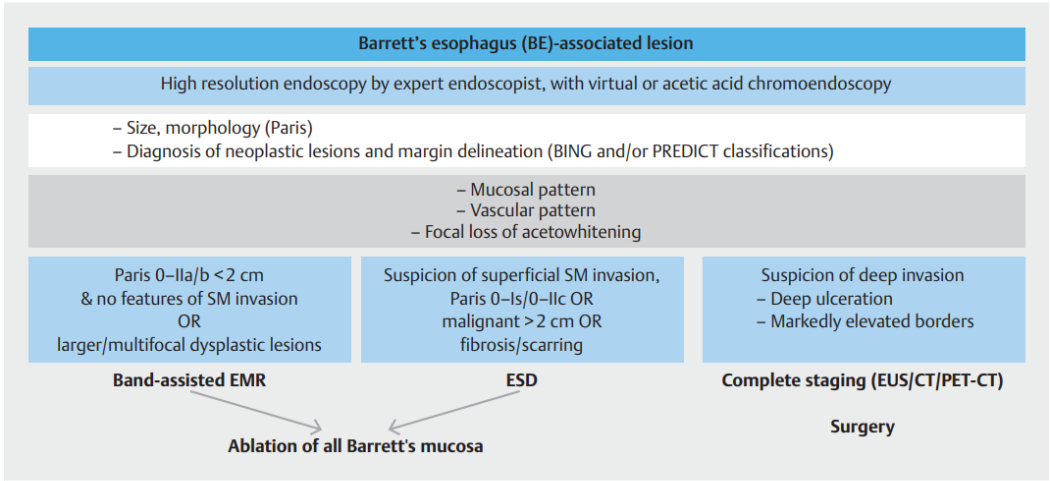
34.ESGE does not suggest routine use of EUS, MRI, CT, or PET in the follow-up after a very low or low risk (curative) endoscopic resection, but this might be considered in the cases of T1a-m3/T1b-sm1 esophageal SCC particularly if no additional treatment has been decided.

Weak recommendation, low quality evidence.

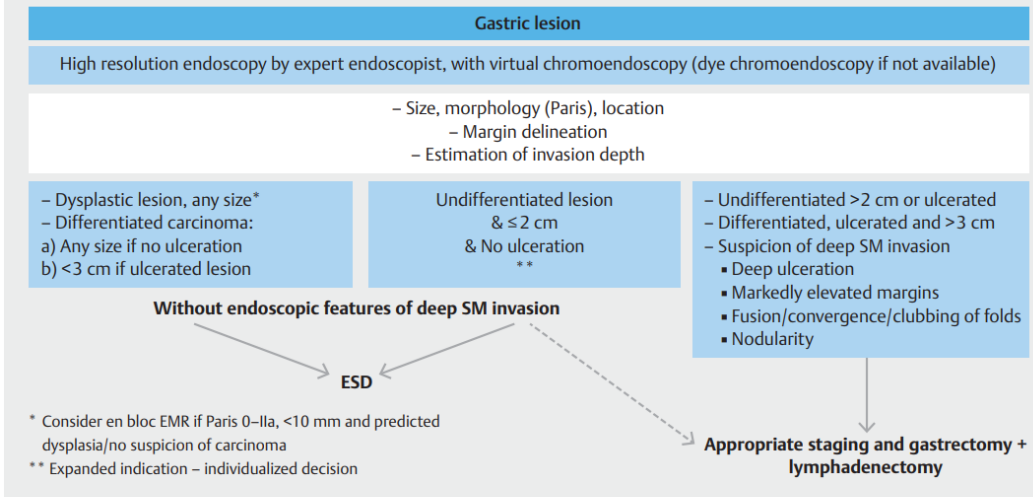
ESGE 不建議在極低風險或低風險(治癒性)內鏡切除術後常規使用 EUS、MRI、CT 或 PET，但在 T1a-m3/T1b-sm1 食道 SCC 的病例中可能會考慮，尤其是在沒有決定額外治療的情況下。



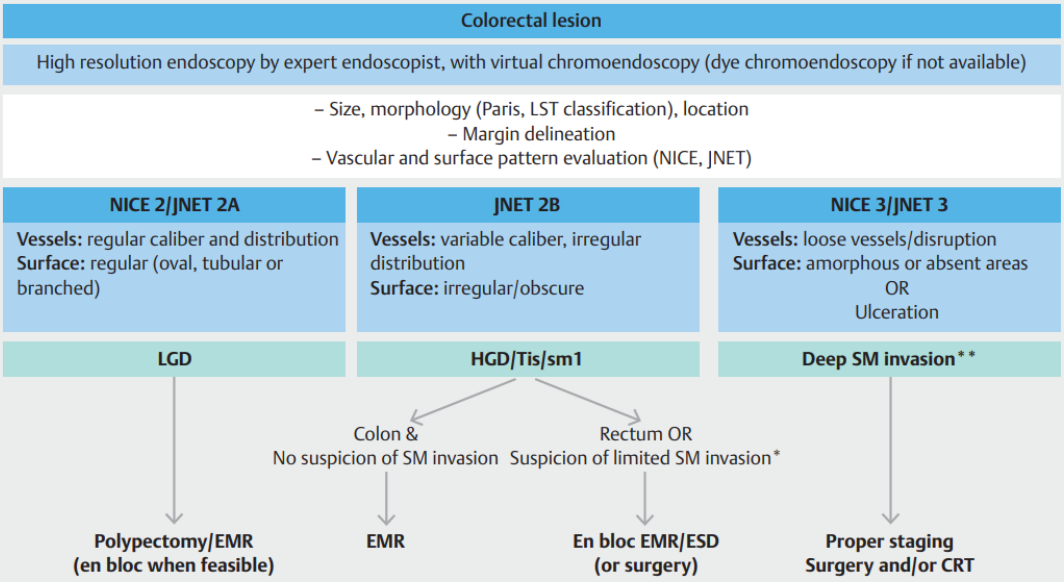
▶ **Fig. 1** Endoscopic submucosal dissection (ESD) for superficial esophageal squamous cell cancers (SCCs): a decision algorithm. CRT, chemo-radiotherapy, CT, computed tomography; EUS, endoscopic ultrasonography; PET, positron emission tomography.



▶ **Fig. 2** Endoscopic submucosal dissection (ESD) for Barrett's esophagus (BE)-related lesions: a decision algorithm. BING, Barrett's International NBI Group; CT, computed tomography; EMR, endoscopic mucosal resection; EUS, endoscopic ultrasonography; PET, positron emission tomography; PREDICT, Portsmouth acetic acid classification; SM, submucosal.



▶ **Fig. 3** Endoscopic submucosal dissection (ESD) for superficial gastric lesions: a decision algorithm. SM, submucosal.



* LST nongranular (particularly if pseudodepressed, IIc); LST granular nodular mixed-type (>2 cm); demarcated depressed area with irregular surface pattern; large protruded or bulky component

** In the rectum consider EUS/MRI if suspicion of SM invasion and doubts on endoscopic resection

▶ **Fig. 4** Endoscopic submucosal dissection (ESD) for superficial colorectal lesions: a decision algorithm. CRT, chemoradiotherapy; EMR, endoscopic mucosal resection; EUS, endoscopic ultrasonography; HGD, high grade dysplasia; JNET, Japan NBI Expert Team; LGD, low grade dysplasia; LST, laterally spreading tumor; MRI, magnetic resonance imaging; NICE, NBI International Colorectal Endoscopic.

▶ **Table 2** Types of endoscopic resection according to endoscopic and pathological criteria (post-resection), and proposed subsequent management.

	Endoscopic	Pathological	Notes	Management
Very low risk (curative) resection *Lymph node metastasis (LNM) risk* *< 1 %*	Complete AND En bloc	• Only dysplasia • If cancer: – Only intramucosal cancer – Differentiated – V0 – L0 – HM0 and VM0 (R0) – UL0 • UL1 gastric intramucosal cancer and: – Differentiated – L0 – HM0 and VM0 (R0) – ≤ 3 cm	Esophageal SCC T1a-m3 has a higher risk of LNM and should not be considered as a very low risk resection (instead it should be a low risk resection)	• Only endoscopic surveillance recommended • No need for further radiological staging or surveillance
Low risk (curative) resection *LNM risk < 3 %*	Complete AND En bloc	• sm1 cancer[1] and: – Differentiated – V0 – L0 – HM0 and VM0 (R0) – UL0 – Budding 0/1 (colon) • Poorly differentiated gastric intramucosal cancer and[2]: – V0 – L0 – HM0 and VM0 (R0) – UL0 – ≤ 2 cm	If m3/sm1 esophageal SCC, lesion should ideally be ≤ 2 cm If sm1 gastric cancer, lesion should be ≤ 3 cm	• Complete staging is recommended • Further therapy generally not recommended • Adjuvant therapy might be considered in esophageal SCC m3/sm1 (CRT) and in poorly differentiated intramucosal gastric cancer (surgery) • Only endoscopic surveillance recommended (radiological surveillance might be considered in esophageal SCC and poorly differentiated gastric intramucosal cancer)
Local-risk resection *LNM risk < 3 %* *Local recurrence risk 10 %–30 %*	Complete AND Piecemeal	• HM1 and VM0 (RX) and: – Only dysplasia or intramucosal cancer – Differentiated – V0 – L0 – UL0	If SM cancer present in the margins, it should be considered a high risk resection If only intramucosal cancer in the margins, decision should be individualized If SM cancer area not in the margins (allowing full evaluation of the SM cancer area) decision should be individualized	• Complete staging is recommended (if malignant) • Endoscopy and biopsies 3–6 months after ESD and until no recurrence confirmed • If recurrence and if possible, endoscopic re-treatment preferred over other treatments

▶ **Table 2** (Continuation)

	Endoscopic	Pathological	Notes	Management
High risk (noncurative) resection *LNM risk > 3 %*	Incomplete OR If complete at least one of pathological criteria must apply	▪ Cancer and at least one of these criteria must apply: – sm2/sm3 invasion – Undifferentiated – V1 – L1 – VM1 (R1) – Budding 2/3 (colorectal) ▪ sm1 or UL1 gastric cancer and: – > 3 cm	If complete ER most patients will, nevertheless, be cured LV1 is the most important risk factor for LNM (20 %–30 % risk) and the strongest indication for adjuvant treatment If sm2 is the only high risk criterion present then in some scenarios (old and unfit patients; rectal location) the risk of further therapy might be higher than that of surveillance alone	▪ Complete staging is mandatory ▪ Multidisciplinary team decision recommended ▪ Strong consideration for adjuvant treatments (surgery and/or CRT in esophageal SCC and rectum) recommended

CRT, chemoradiotherapy; ER, endoscopic resection; ESD, endoscopic submucosal dissection; HM, horizontal margin; L, lymphatic invasion; LNM, lymph node metastasis; LV1, lymphovascular invasion; SCC, squamous cell cancer; SM, submucosal; UL, ulcerated; V, vascular invasion; VM, vertical margin.
[1] sm1 cancer: tumor invasion ≤ 200 µm (SCC), ≤ 500 µm (Barrett's and gastric), and ≤ 1000 µm (colon); all other criteria must apply to consider ER as a low risk resection.
[2] Expanded indication, individualized decision; all other criteria must apply to consider ER as a low risk resection.

#ESD 現在已經延伸到三公分大了
#ESD 之外還是 ESD
#十二指腸跟小腸是新大陸嗎
#期待國內的教授、高手、學者、專家定期開設工作坊
#2022ENDO 世界內視鏡大會在日本京都 Kyoto