

Congrès national d'endoscopie digestive
08 Novembre 2024



Résection des polypes coliques en 2024

Drir Othmane
Clinique Fatema el Azhar
Dely brahim – Alger -



Introduction :

Colonoscopie = Gold stand -----Dg -----résection de polype -----↓ ↓ CCR

Colonoscopy Reduces Colorectal Cancer Incidence and Mortality in Patients With Non-Malignant Findings: A Meta-Analysis

- 11 études observationnelles
- 1.5 millions de sujet
- Coloscopie réduit :
61 % Incidence et la mortalité liée au CCR chez les patient avec des lésions non maligne

- **Polypectomie** : résection de polype de moins de 19 mm (avec ou sans utilisation d'un électrocoagulation , avec ou sans injection sous muqueuse)
- **Mucosectomie** : résection d'un polype de plus de 20 mm

Caractérisation du polype



Taille

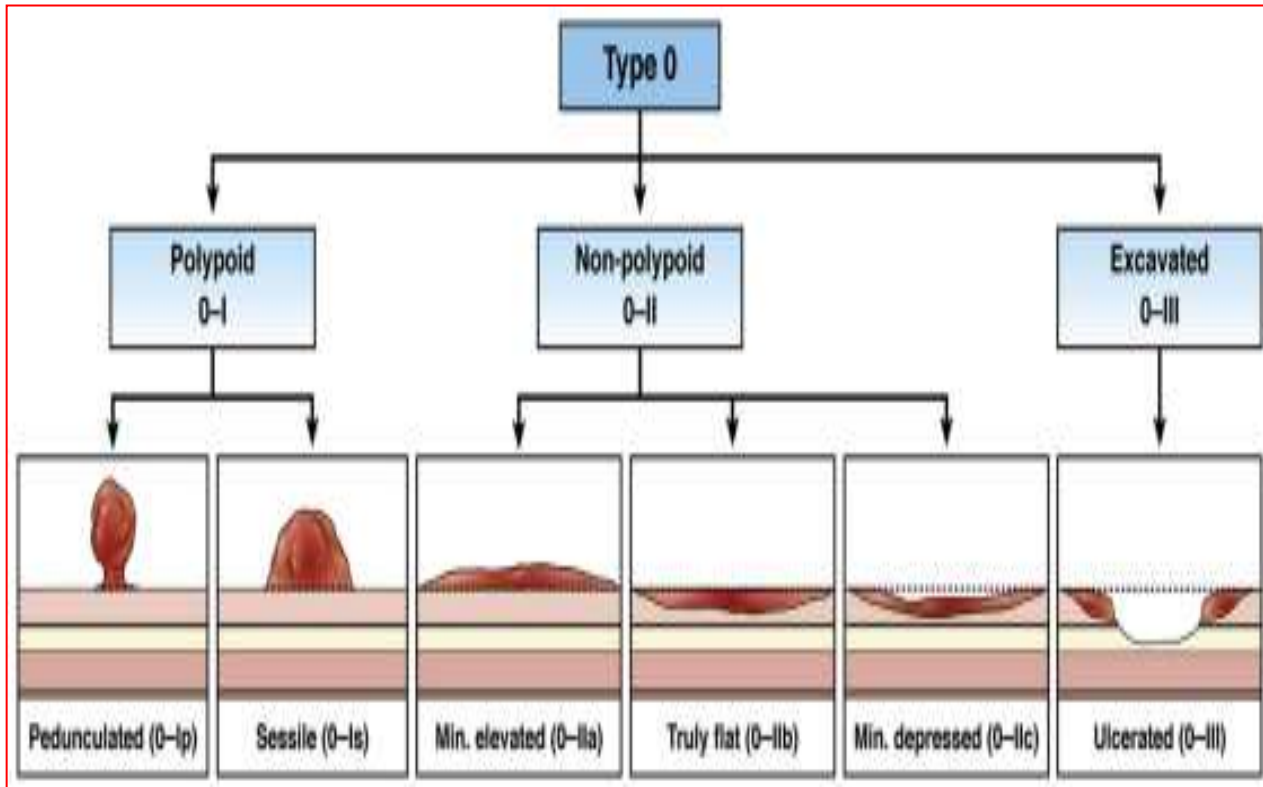
Localisation

Accès

Morphologie

Aspect des cryptes / Vs

Classification de Paris



Paris Classification	n	% with SMI
Is	146	7.5
IIa	222	4.1
IIb	9	11.1
IIc or IIa+IIc	22	31.8
IIa+Is	80	6.3

Moss A et al. Gastroenterology. 2011.

Relie cet aspect macroscopique au risque de dégénérescence et d'invasion profonde

Obligatoirement figurer dans le compte-rendu de coloscopie

Classification de Paris



Figure 1. Paris Endoscopic Classification of superficial neoplastic

En **BLOC** R0 **SI POSSIBLE**
Piece -meal EMR est accepté

Classification de Paris



Figure 1. Paris Endoscopic Classification of superficial neoplastic lesions in the colon and rectum.

En **BLOC** R0 **SI POSSIBLE**
Pieace meal est accepté

En **BLOC** R0 **INDISPENSABLE**
Mucosectomie en Bloc
ou bien ESD si > 20 mm

Classification des LST

LST
(laterally spreading tumors)

Subtypes of LST[†] lesions: Morphological classification of LST lesions and their correspondence in the Paris-Japanese classification

Subtypes of LST	Classification of type 0
LST granular (LST-G)	
Homogenous type	0-IIa
Nodular mixed type	0-IIa, 0-Is + IIa, 0-IIa + Is
LST non-granular (LST-NG)	
Flat elevated	0-IIa
Pseudo-depressed type	0-IIa + IIc, 0-IIc + IIa



IIa



IIa + Is



IIa



IIc + IIa

[†] The term 'LST (laterally spreading tumor)' refers to the lateral growth of lesions at least 10 mm in diameter; this is in opposition to traditional polypoid (upward growth) or flat and depressed lesions (downward growth).

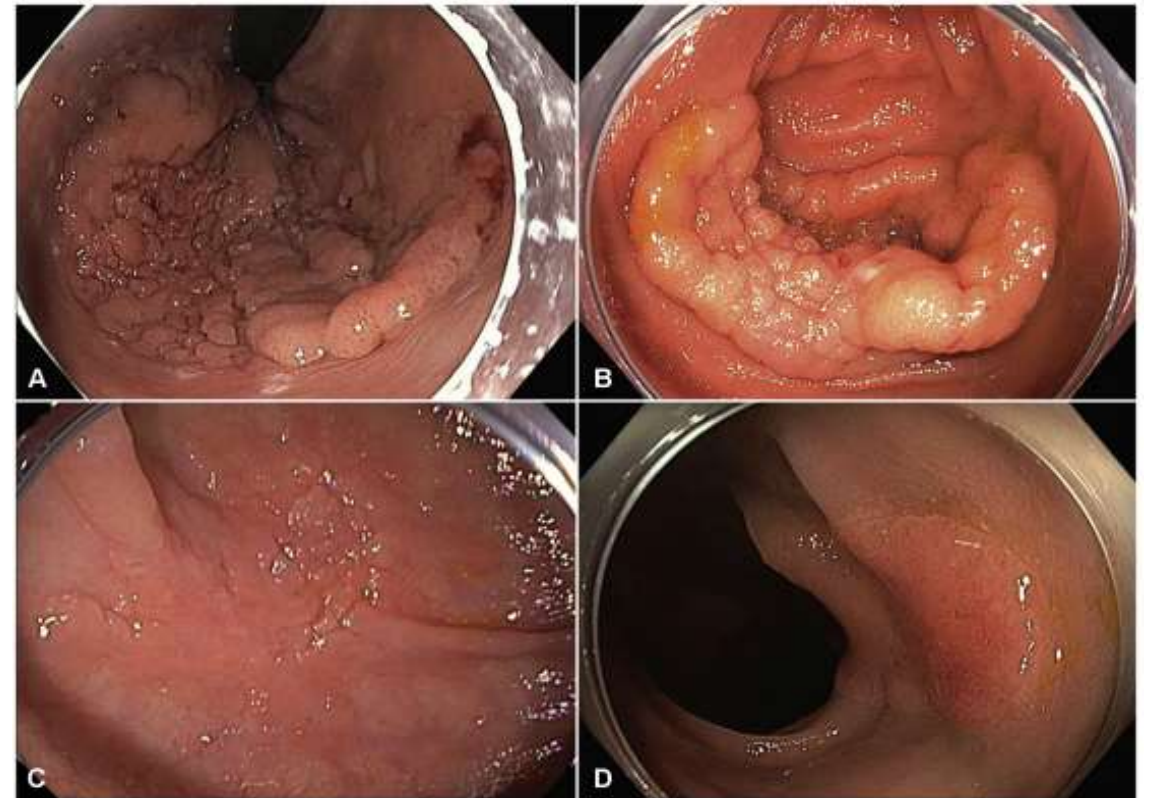
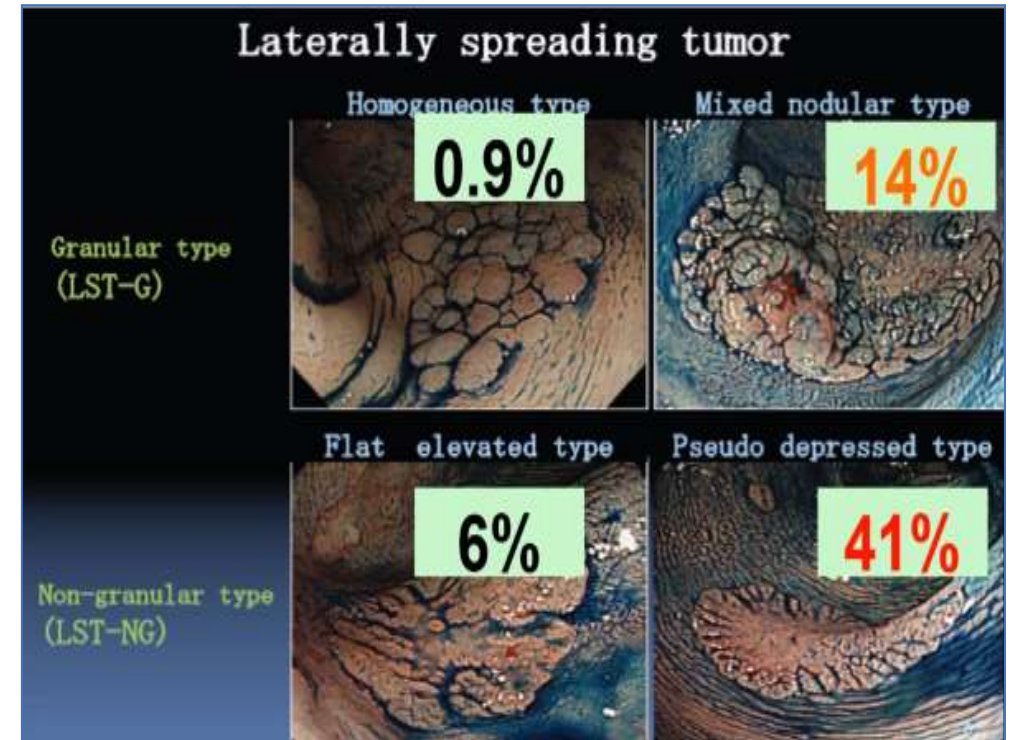
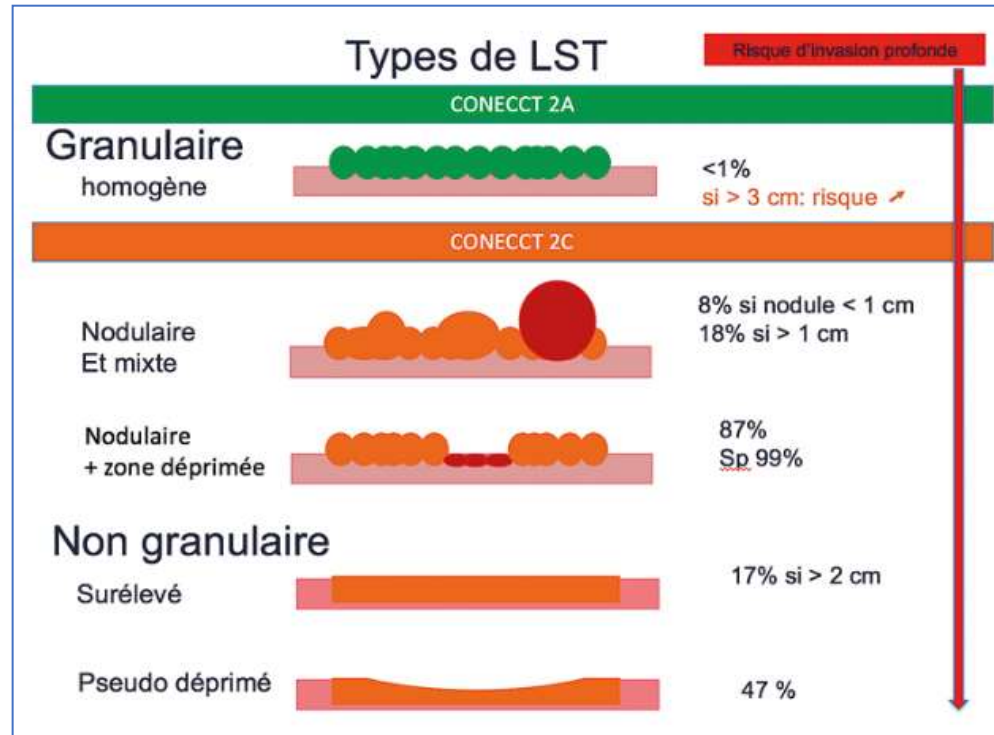





Figure 2. Lateral spreading lesions. Non-polypoid lesions ≥ 10 mm in diameter are referred to as laterally spreading tumors (LSTs). They have a low vertical axis and extend laterally along the luminal wall. LSTs are morphologically subclassified into granular type (LST-G) (A, B), which have a nodular surface, and non-granular type (LST-NG), which have a smooth surface (C, D). This macroscopic distinction is important to facilitate the endoscopic removal plan as it provides information about the risk of cancer or submucosal fibrosis in order to anticipate the technical ease or difficulty of the removal. Overall, LSTs were found to contain submucosal invasion (SMI) in 8.5% of the cases (95% CI, 6.5%–10.5%; I^2 86.8%; 26 studies) and high-grade dysplasia in 36.7% of the cases (95% CI 30.3%–43.2%; I^2 91.9%; 23 studies). Non-granular LSTs more often contained SMI than granular LSTs: 11.7% vs 5.9% (OR, 1.89; 95% CI, 1.48–2.42).

Classification des LST

LST
(*laterally spreading tumors*)

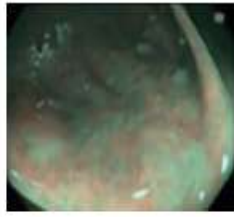
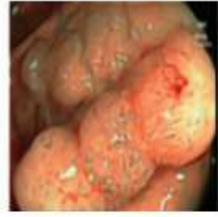
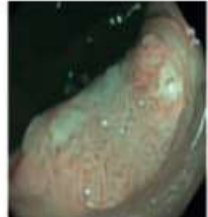



Classification NICE

	Type 1	Type 2	Type 3
			
Couleur	Claire	Brune	Foncée ou noire
Vaisseaux	Absence (quelque fois lacis veineux à la surface)	Réguliers entourant les glandes	Irréguliers et quelquefois absents
Surface	Points sombre ou blancs, homogène	Structures tubulaires ou branchées	Zones de distorsion ou absence de motif
Histologie	Hyperplasique	Adénome DBG ou DHG	Adénocarcinome invasion sm

NBI international Colorectal endoscopic

Classification JNET

NBI	Type 1	Type 2A	Type 2B	Type 3
Vessel pattern	Invisible*	Regular caliber; regular distribution (meshed/spiral pattern)**	Irregular distribution	Loose vessel areas; interruption of thick vessels
Surface pattern	Regular dark or white spots; similar to surrounding normal mucosa	Regular (tubular/branched/papillary)	Irregular or obscure	Amorphous areas
Most likely histology	Hyperplastic polyp/ sessile serrated lesion	Low grade intramucosal neoplasia	High grade intramucosal neoplasia/superficial submucosal invasive cancer***	Deep submucosal invasive cancer
Example image				
<p>* If visible, the caliber in the lesion is similar to the surrounding normal mucosa. ** Microvessels are often distributed in a punctate pattern and well-ordered reticular or spiral vessels may not be observed in depressed lesions. *** Deep submucosal invasive cancer may be included.</p>				

The Japan NBI Expert Team

2024 :

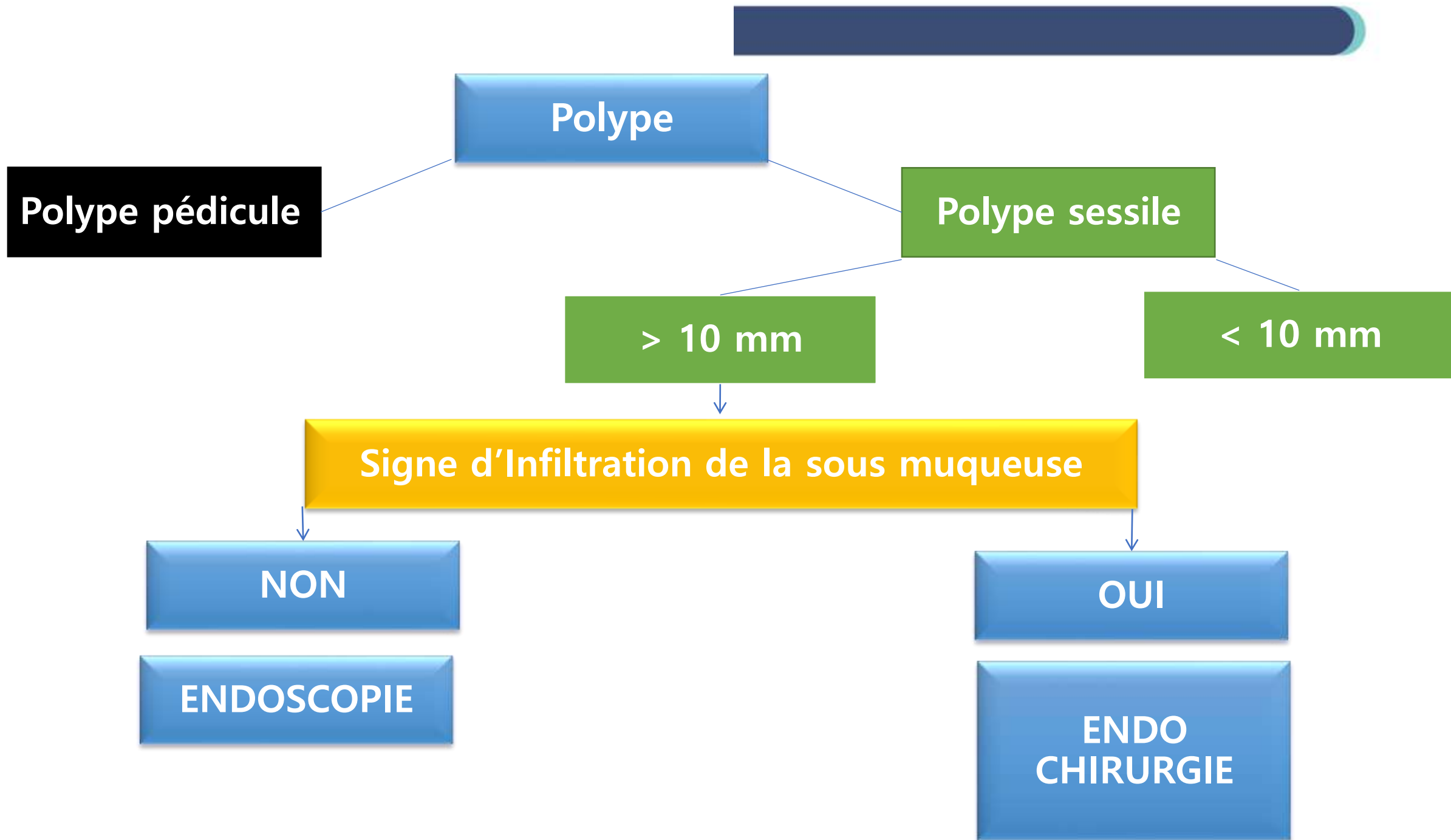
- Polype festonné sans dysplasie : Anse froide
- Thermo-ablation des berge après mucosectomie .
- Résection sous marine (UEMR) est une alternative a la mucosectomie conventionnelle (EMR)
- Polype avec signes d'infiltration superficiel de la sous muqueuse : mucosectomie en Bloc , EDS , EFTR , Endoscopic intra musculaire resection .



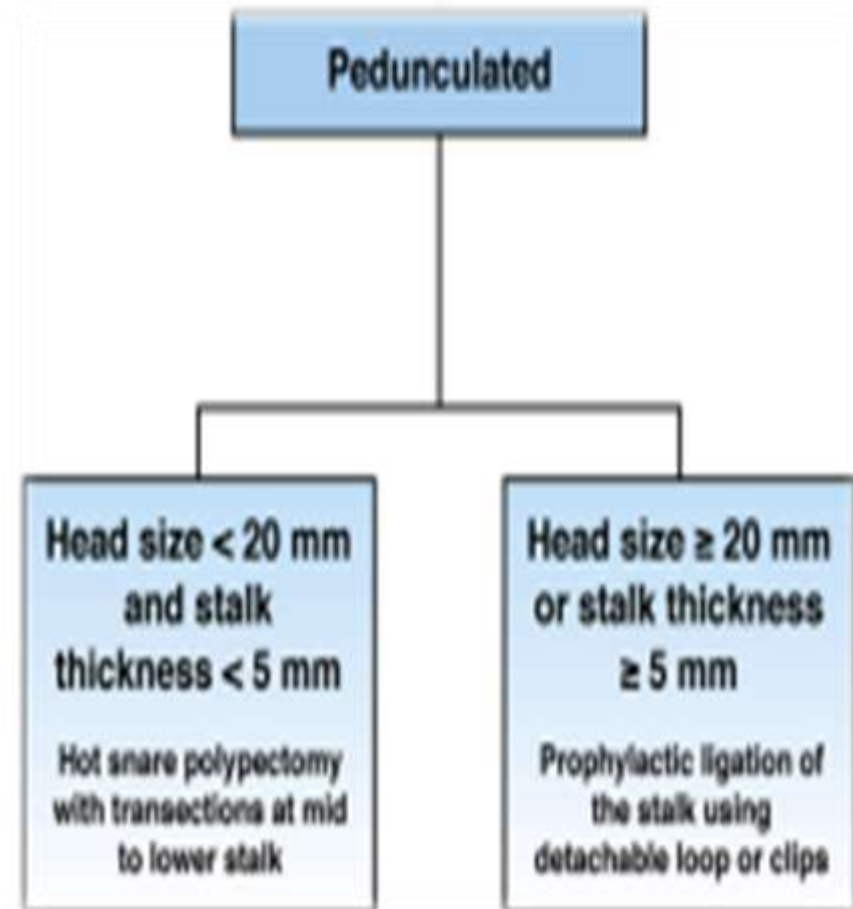
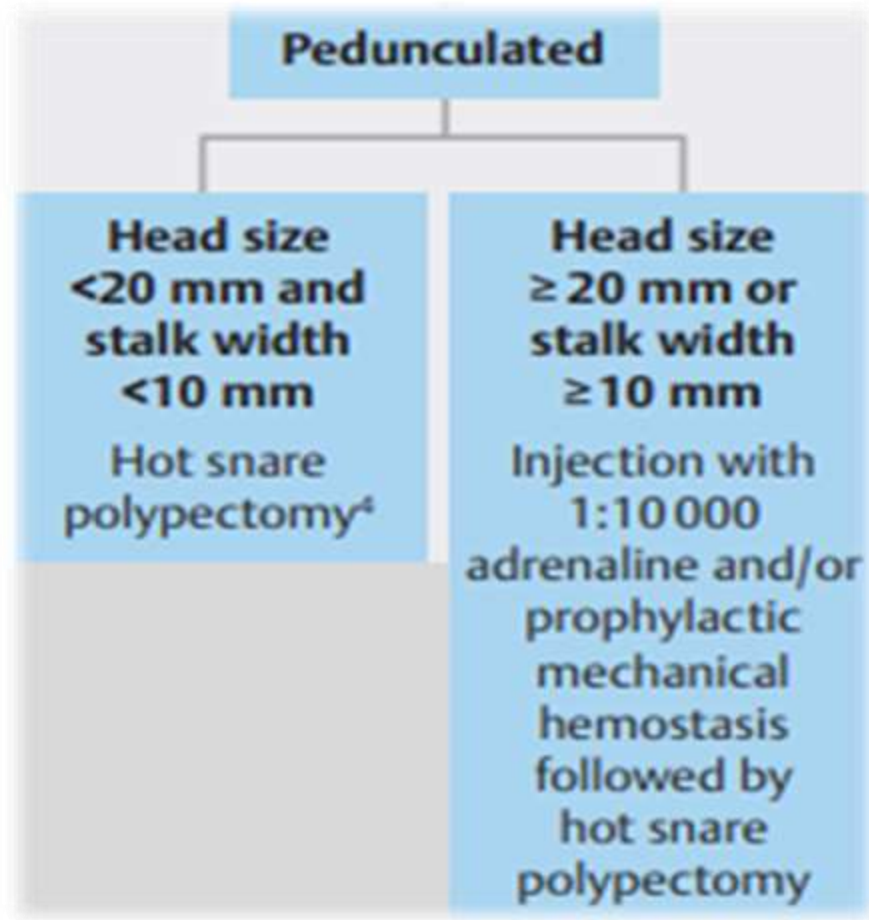
**Colorectal polypectomy and endoscopic mucosal resection:
European Society of Gastrointestinal Endoscopy (ESGE)
Guideline - Update 2024**

**Endoscopic Removal of Colorectal Lesions—Recommendations
by the US Multi-Society Task Force on Colorectal Cancer**

**AGA Clinical Practice Update on Appropriate and Tailored
Polypectomy: Expert Review** 2024 by the AGA Institute



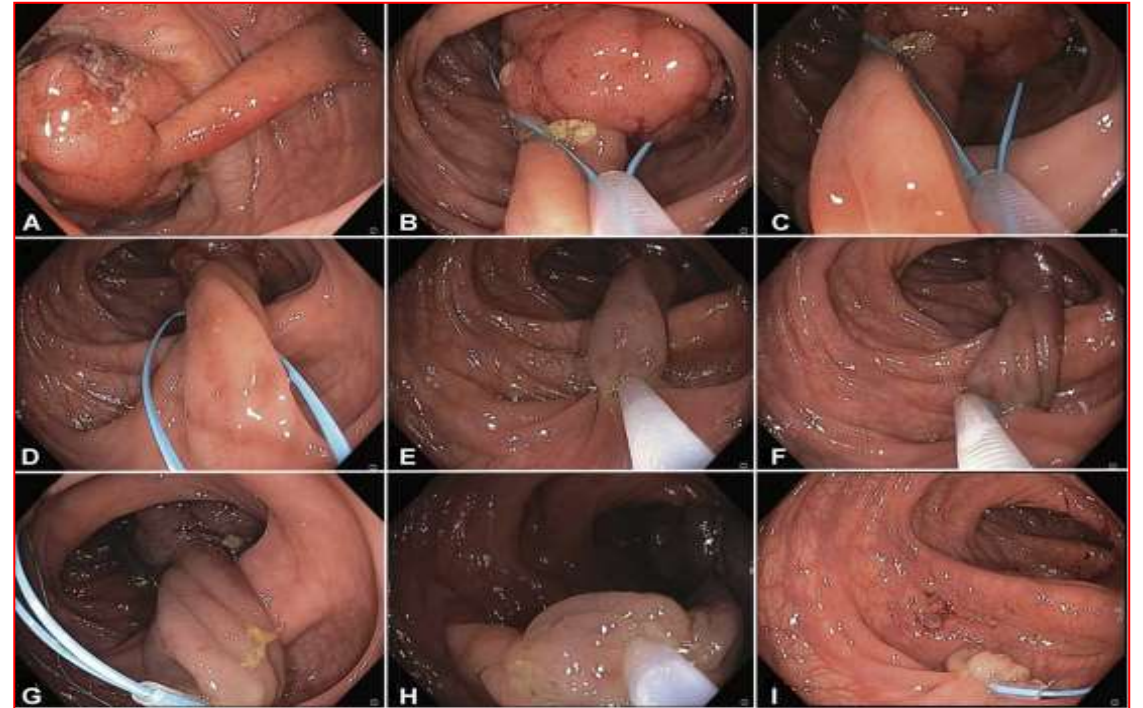
Polype pédicule



Best Practice Advice 7: Use HSP to remove pedunculated lesions >10 mm in size.

Endoscopic characteristics influencing post polypectomy bleeding in 1147 consecutive pedunculated colonic polyps: a multicenter retrospective study

- Etude rétrospective
- Saignement immédiat : **8.5 %**
- Saignement retardé : **2 %**
- SI vs Pas de SI : pédicule large > 6 mm
FDR en analyse multi varié ([OR], 1.9; 95% [CI], 1.1-3.4)
- Polype > 15 mm : endoloop est moyen préventive de SI



Polype pédicule

< 10 mm

ANSE FROIDE



	STUDY	IPPB	DPPB
Evaluation of cold snare polypectomy for small pedunculated (Ip) polyps with thin stalks: a prospective clinical feasibility study	Prosp (114 polyps)	28.9 %	0 % (HS 33%)
Management of Less Than 10-mm-Sized Pedunculated (Ip) Polyps with Thin Stalk: Hot Snare Polypectomy Versus Cold Snare Polypectomy	Retros (4920 polyps)	38 % (HS 3.5 %)	0 % (HS 4.7%)
Safety and efficacy of cold snare polypectomy for pedunculated (Ip) polyps measuring less than 10 mm in diameter	Retros (1641 polyps)	6.2 %	0 %

Arimoto .a | Evaluation of cold snare polypectomy for small pedunculated (Ip) polyps with thin stalks: a prospective clinical feasibility study
Scandinavian Journal of Gastroenterology novembre 2021

Arimoto Juan et al . Safety and efficacy of cold snare polypectomy for pedunculated (Ip) polyps measuring less than 10 mm in diameter 2020 May;35(5):859-867

Arimoto Juan et al . Management of Less Than 10-mm-Sized Pedunculated (Ip) Polyps with Thin Stalk: Hot Snare Polypectomy Versus Cold Snare Polypectomy 2021 Jul;66(7):2353-2361.

Polype sessile

< 5 mm (diminutive)
< 10 mm (petit)

A N S E ----- F R O I D E

Hyperplasique Simple

Je sait pas ?

Adénome

Polype festonné



Pas de résection

Anapath

Je récupère ??

Discard
SI BON NIVEAU DE CARACATERISATION

Polype sessile : Diminutive < 5 mm
Petit polype 6 – 9 mm

A N S E ----- F R O I D E

ESGE	<5 mm : Anse froide de polypectomie avec marge saine	≠ 2017
	6 a 9 mm : Anse froide de polypectomie avec marge saine	≠ 2017
USA	Anse froide de polypectomie < 10 mm Pince a Bx froide (PBxF) est une alternative polype < 3 mm si AFP est techniquement difficile	

Best Practice Advice 3: Do not use hot forceps polypectomy.

Polype sessile : Diminutive < 5 mm
 Petit polype 6 – 9 mm

ANSE FROIDE VS PINCE A BIOPSIE FROIDE

TABLE 3. Complete resection rates of adenomatous polyps

Parameter, no./No. (%)	CSP (n = 59)	CFP (n = 69)	Total (n = 128)	P value
Complete resection rate of adenomatous polyps	57/59 (96.6)	57/69 (82.6)	114/128 (89.1)	.011
Size of adenomatous polyps, mm				
≤4*	27/27 (100)	31/32 (96.9)	58/59 (98.3)	1.000*
5-7	30/32 (93.8)	26/37 (70.3)	56/69 (81.2)	.013

CSP, Cold snare polypectomy; CFP, cold forceps polypectomy.

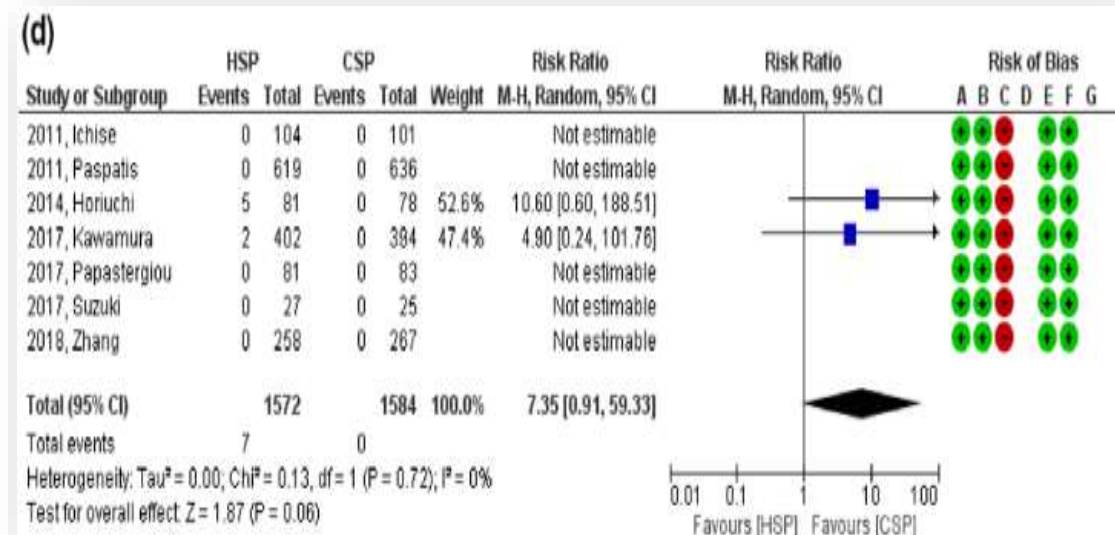
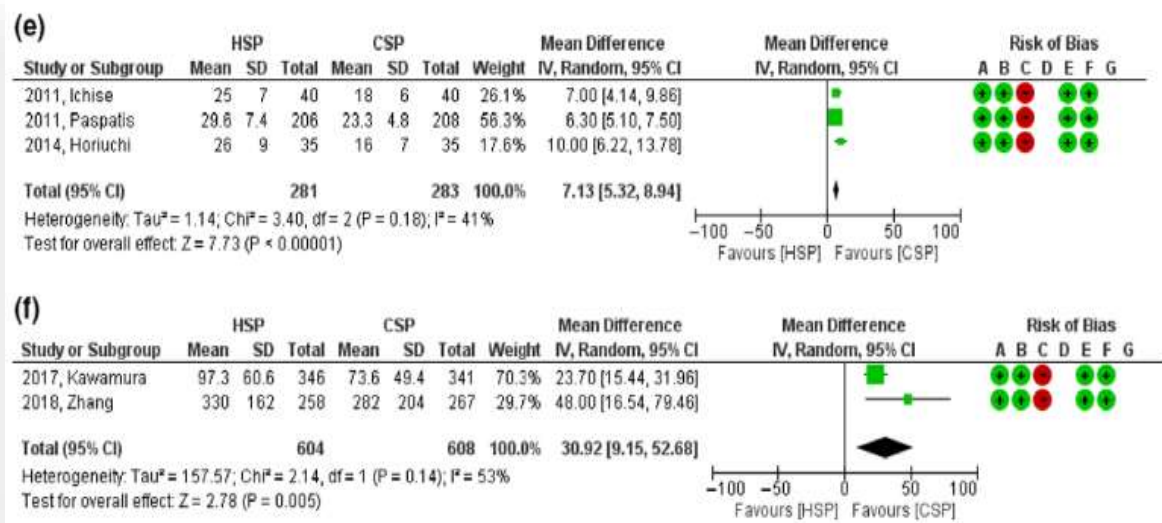
*Fisher exact test.



Efficacy and safety of cold versus hot snare polypectomy for resecting small colorectal polyps: Systematic review and meta-analysis

3195 polypes : AFP vs ACP

- Taux de résection complète =
- Taux de récupération de polype =



≠ Durée de la procédure

≠ Sainement retardé
non significative

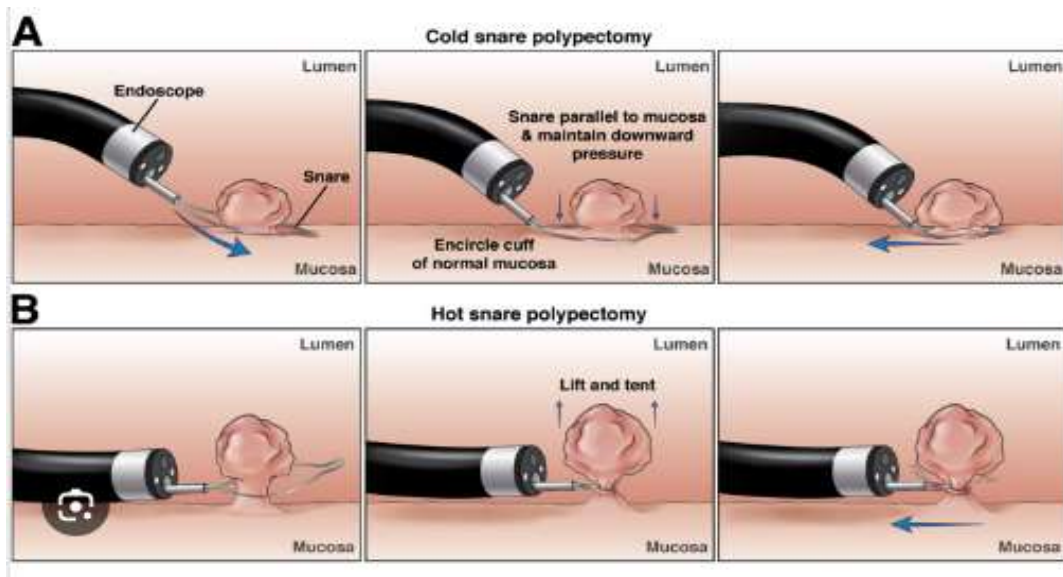
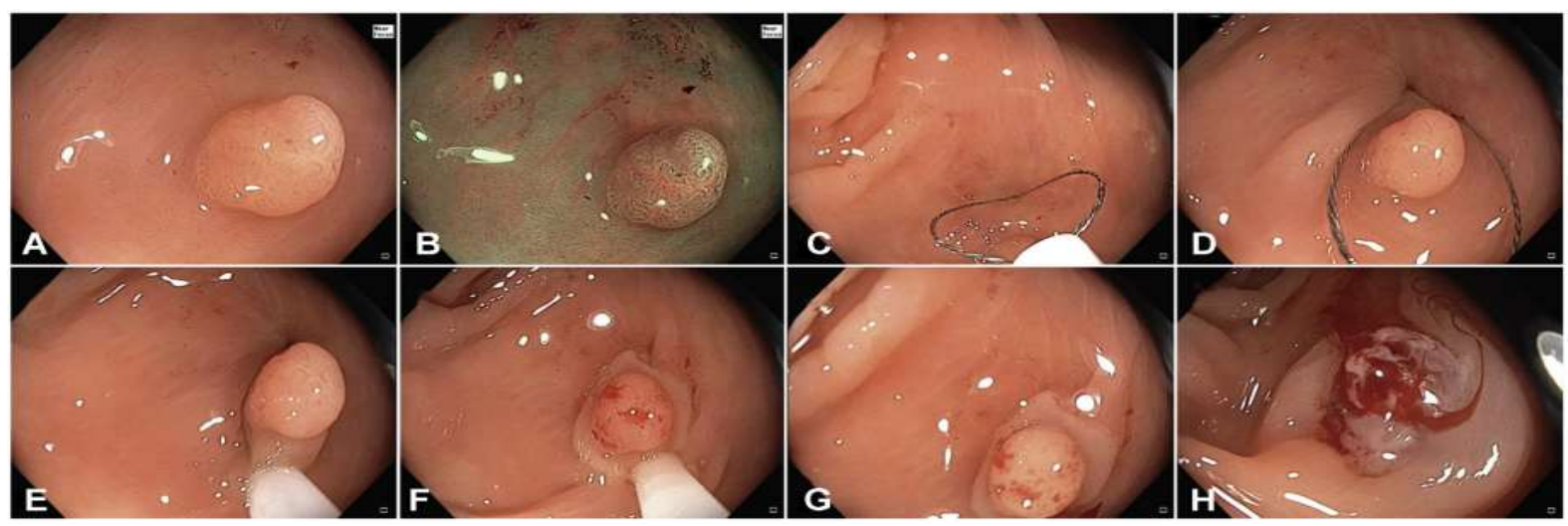


TABLE 1. Differences in technique between hot and cold snaring

	Cold snaring	Hot snaring
Position of the lesion	5 o'clock	5 o'clock
Margin of normal tissue	Yes: at least 2 mm	Minimal
Tenting of lesion	No: snare sheath should remain anchored to the colon wall	Yes: for application of electrocautery
Snare closure	Continuous until polyp guillotined	Snare closure stopped once resistance detected (or mark on snare handle reached)
Aspiration	No (maintain insufflation)	Yes
Electrocautery	No	Yes



Polype sessile

> 10 mm

- Rechercher les signes endoscopique d'infiltration sous muqueuse

Signe d'Infiltration de la sous muqueuse

NON

ENDOSCOPIE

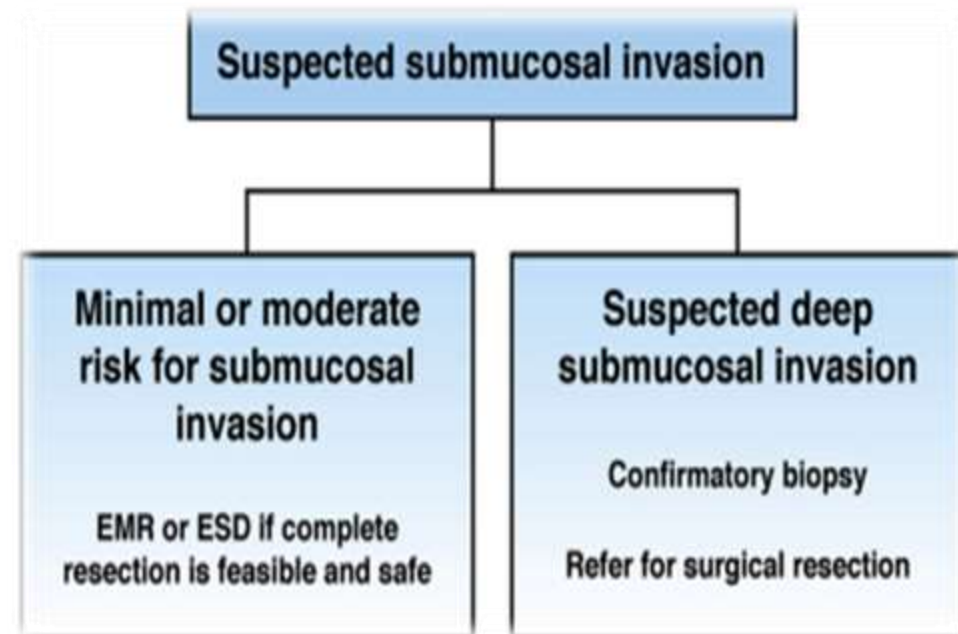
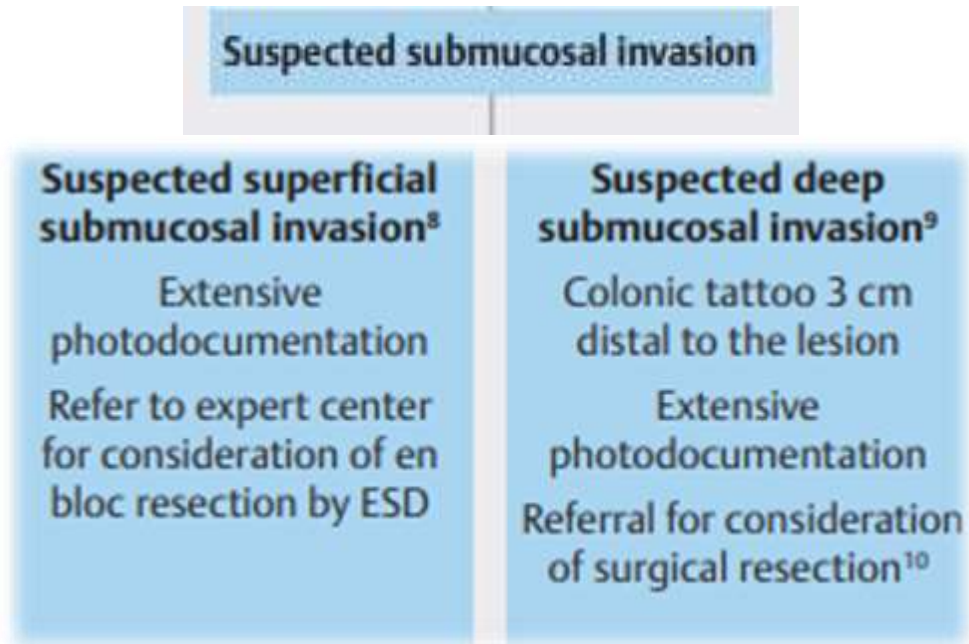
OUI

ENDO
CHIRURGIE

Polype sessile

> 10 mm

- **PRÉSENCE** de signes endoscopique d'infiltration sous muqueuse



Polype sessile

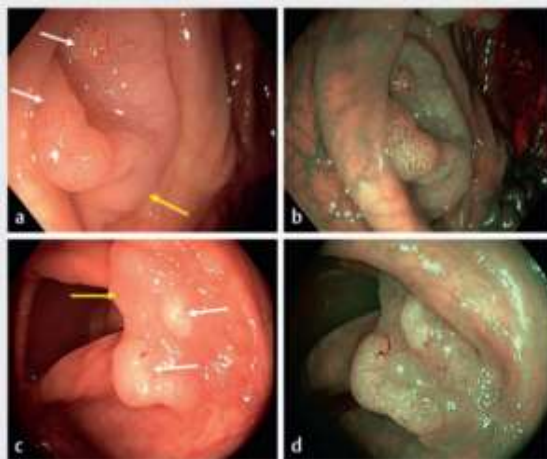
> 10 mm

- **ABSENCE** de signes endoscopiques d'infiltration sous muqueuse

Polype festonne sans dysplasie



Polype festonne avec dysplasie



Adénome



Polype sessile

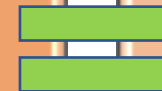
> 10 mm

- **ABSENCE** de signes endoscopique d'une infiltration sous muqueuse

Polype festonne sans
dysplasie



Polype festonne avec
dysplasie



Adénome

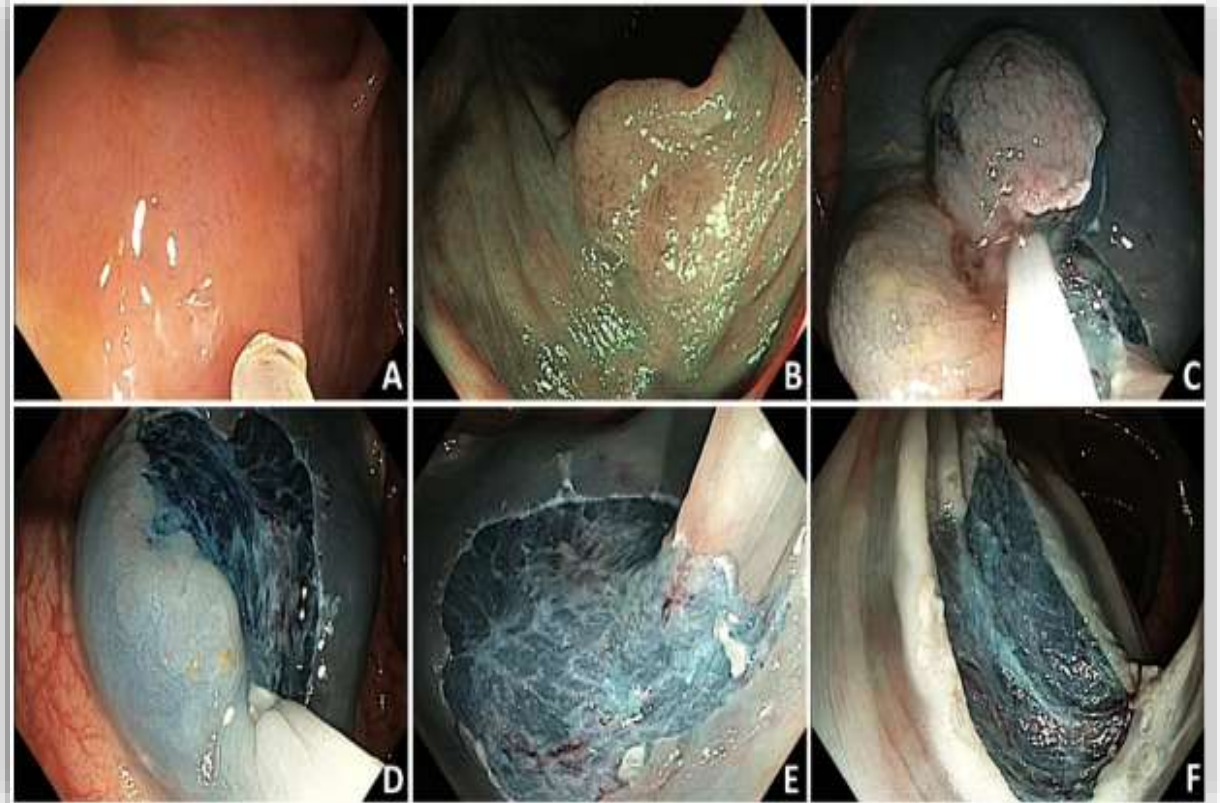
Polype > 10 mm , festonné sans dysplasie

**Sessile serrated lesion
without dysplasia of
all sizes**

**Piecemeal cold snare
polypectomy**

**Consider submucosal
injection to demarcate
margins before
polypectomy if lesion
≥10–15 mm**

Best Practice Advice 6: Serrated polyps should be resected using cold resection techniques. SM injection may be helpful for polyps >10 mm if margins cannot be well delineated.



Piecemeal cold snare polypectomy versus conventional endoscopic mucosal resection for large sessile serrated lesions: a retrospective comparison across two successive periods

Table 2 Resection outcomes per lesion

	p-CSP	EMR	P value
Per lesion resection outcomes (n, %)	156 (27.8)	406 (72.2)	
Technical success (n, %)	156 (100.0)	402 (99.0)	1.000
En-bloc resection (n, %)	0 (0.0)	77 (19.0)	<0.001
Resection time, min (median, IQR)	10 (10–15)	10 (5–20)	0.584

EMR, endoscopic mucosal resection; p-CSP, piecemeal cold snare polypectomy.

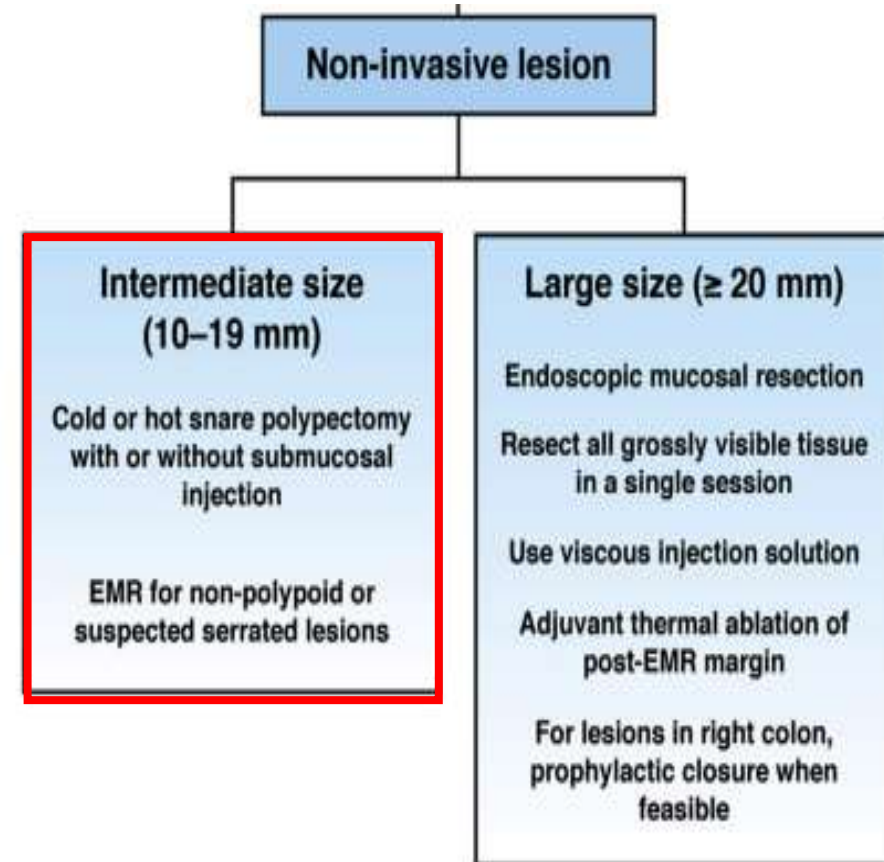
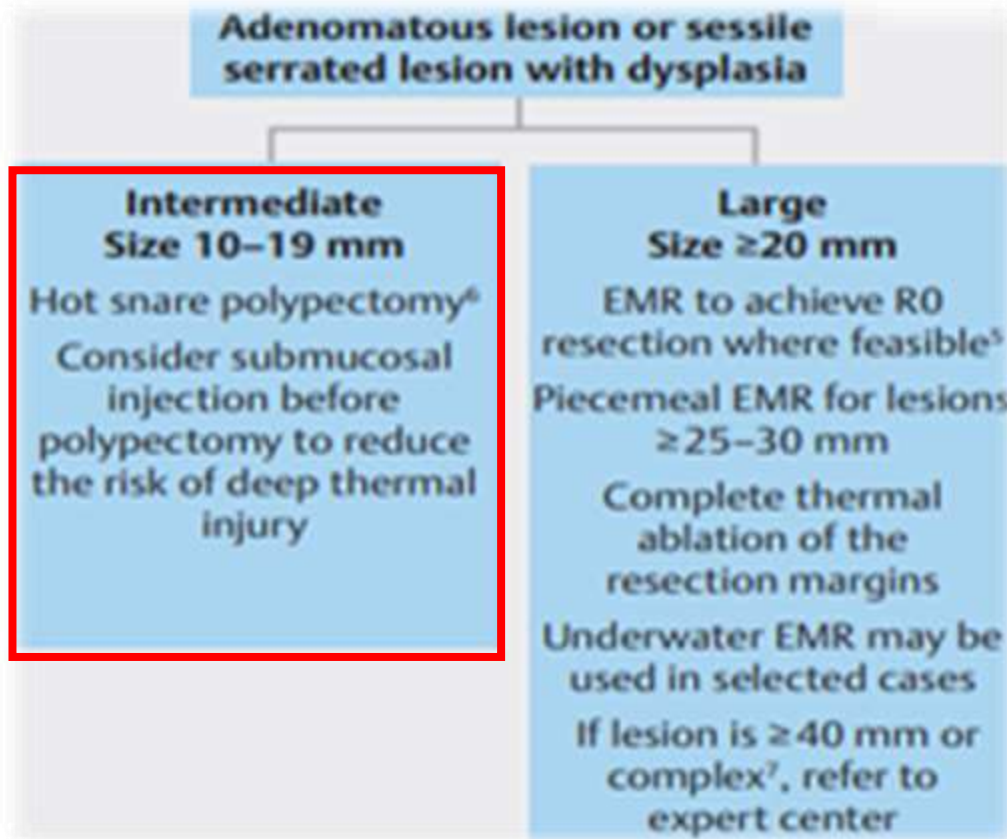
Table 3 Adverse events per patient

	p-CSP	EMR	P value
Per patient resection outcomes (n, %)	121 (25.5)	353 (74.5)	
CSPEB (n, %)	0 (0.0)	18 (5.1)	0.010
CSIPB (n, %)	0 (0.0)	5 (1.4)	0.336
DMI total (n, %)	0 (0.0)	10 (2.8)	0.071
Type 3 ('target sign')		9 (2.5)	
Type 4/5 (transmural perforation)		1 (0.3)	
Delayed perforation (n, %)	0 (0.0)	2 (0.6)	1.000

CSIPB, clinically significant intra-procedural bleeding; CSPEB, clinically significant post-EMR bleeding; DMI, deep mural injury; EMR, endoscopic mucosal resection; p-CSP, piecemeal cold snare polypectomy.

Recurrence rates following p-CSP (4.3 %) were similar to EMR (4.6 %)

Polype > 10 mm , festonné avec dysplasie Ou Adénome

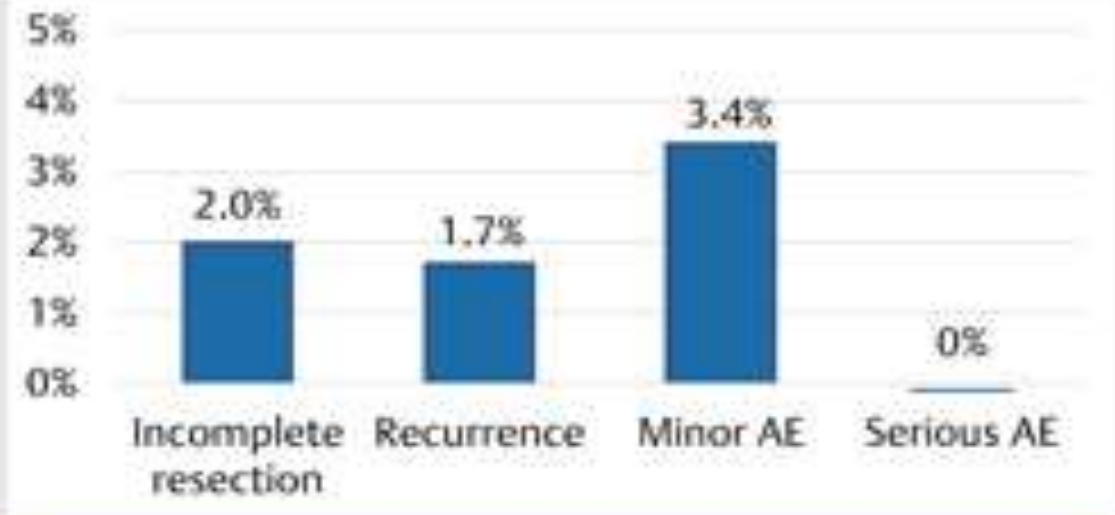


Polype 10 – 19 mm , festonné avec dysplasie Ou Adénome

Effectiveness and safety of cold snare polypectomy and cold endoscopic mucosal resection for nonpedunculated colorectal polyps of 10-19mm: a multicenter observational cohort study

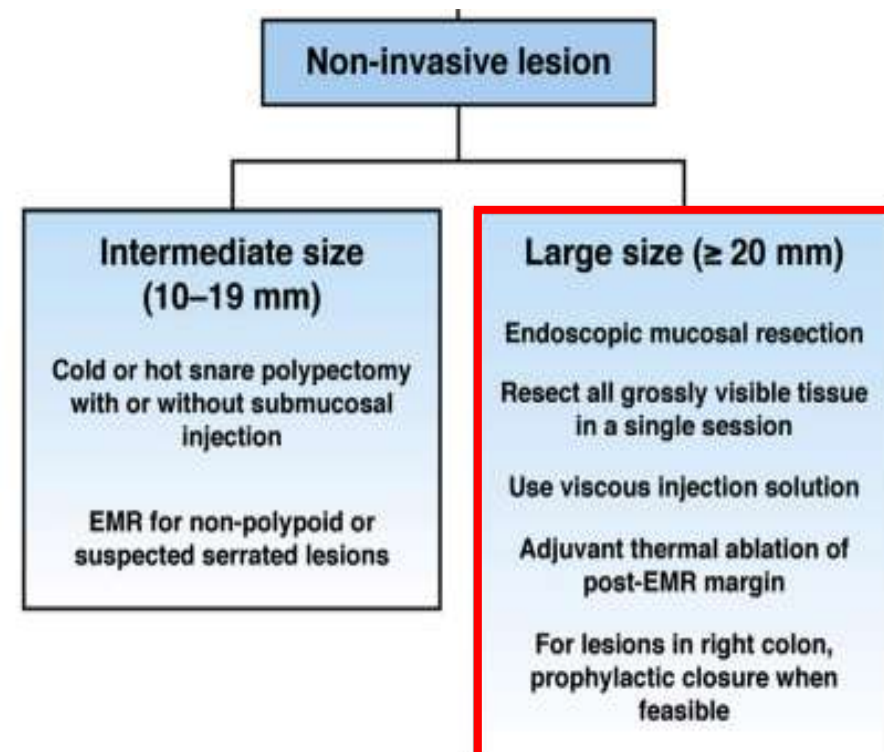
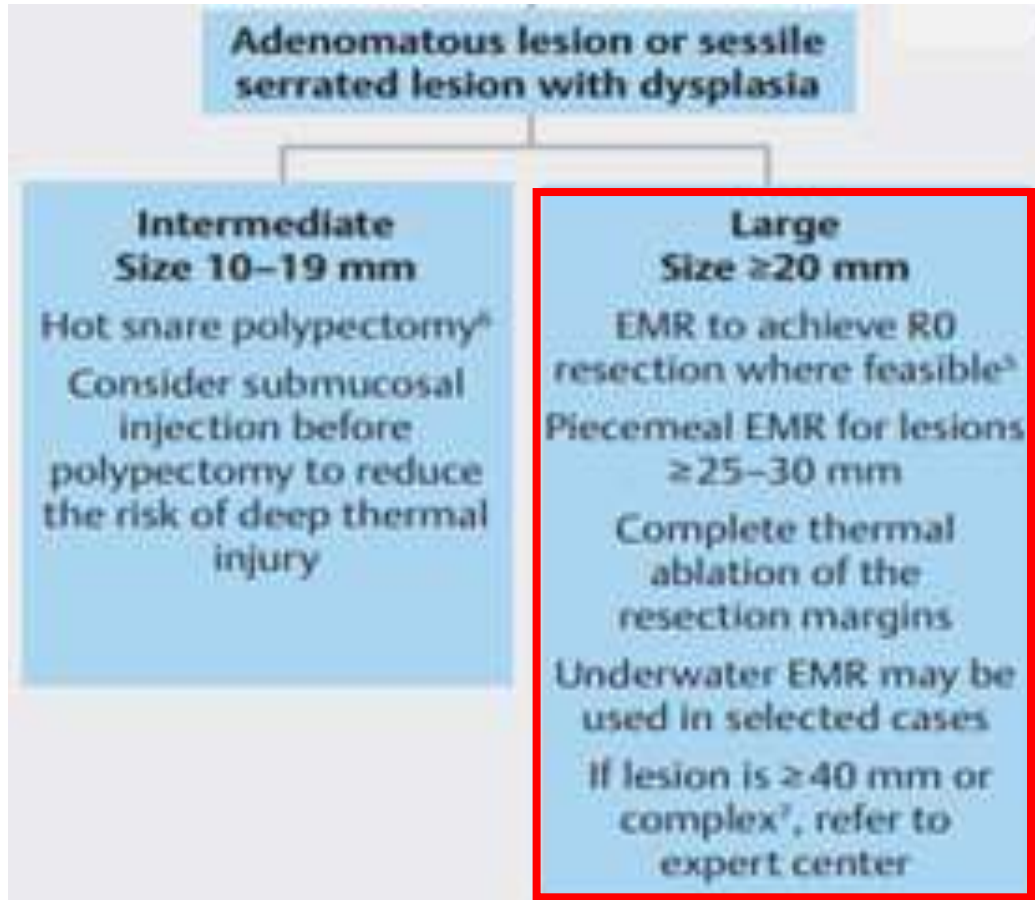
Etude prospective
Anse froide – polype 10 – 19 mm
350 polypes (moy 15 mm)

68 % Adénome
4 % Festonné dysplasie
26 % Festonné sans dysplasie



Cold snare polypectomy is effective and safe for medium-sized nonpedunculated colorectal polyps

Polype > 20 mm , festonné avec dysplasie Ou Adénome



Best Practice Advice 9: Refer patients to endoscopic referral centers in the context of size ≥20 mm, challenging polypectomy location, or recurrent polyp at a prior polypectomy site.

Résection sous marine

Underwater vs Conventional Endoscopic Mucosal Resection of Large Sessile or Flat Colorectal Polyps: A Prospective Randomized Controlled Trial

Conventional EMR vs. Underwater EMR

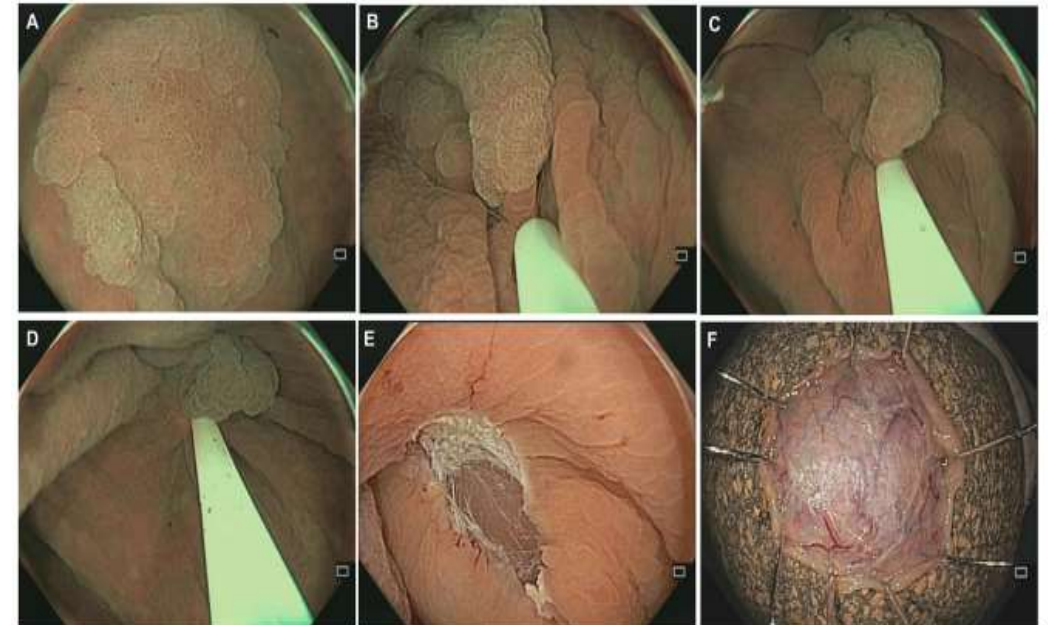
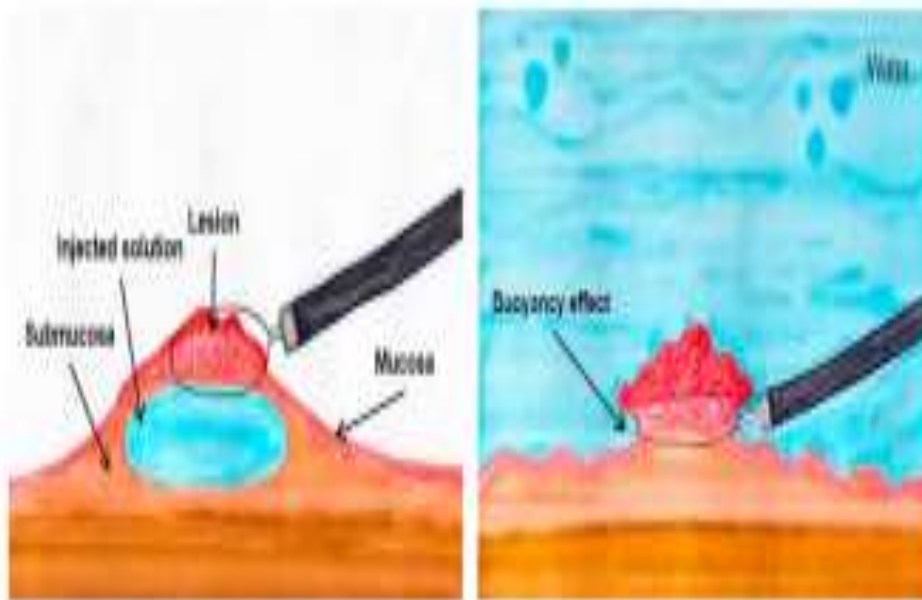


Figure 1. (UEMR. (A) NBI shows the underwater appearance of a lateral spreading tumor, granular type, approximately 20 mm in diameter. (B–D) NBI shows underwater lesion entrapment with a snare and underwater lesion resection. (E) White light endoscopy shows the wound after UEMR with no residual lesion. (F) The resected lesion.

Résection sous marine

Underwater vs Conventional Endoscopic Mucosal Resection of Large Sessile or Flat Colorectal Polyps: A Prospective Randomized Controlled Trial

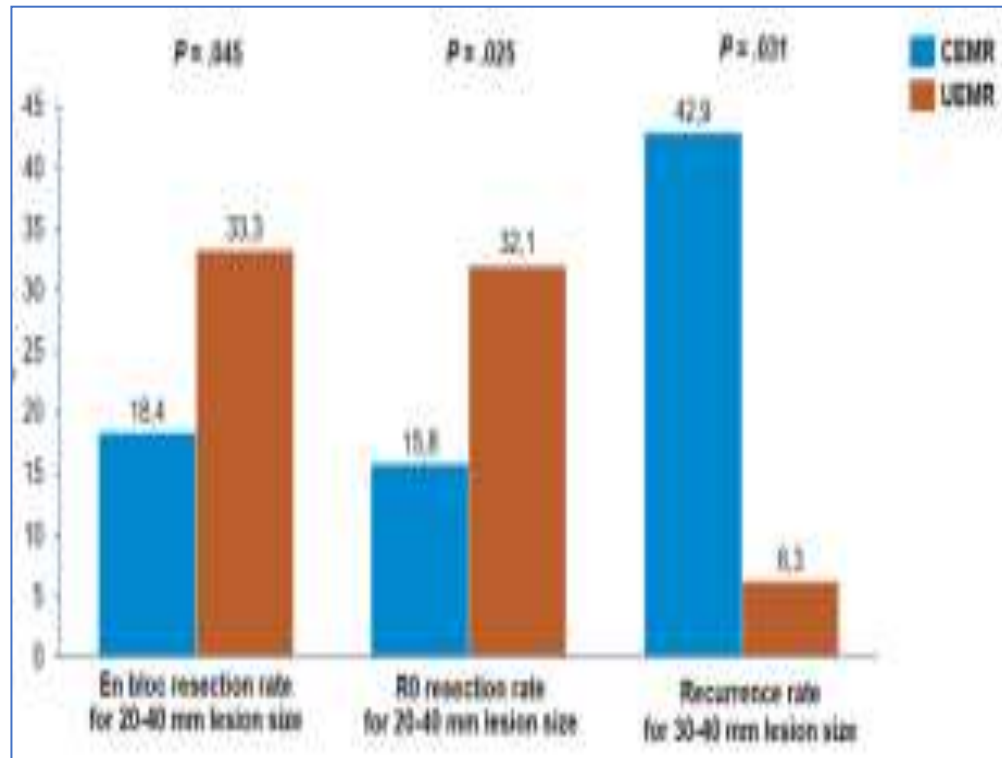
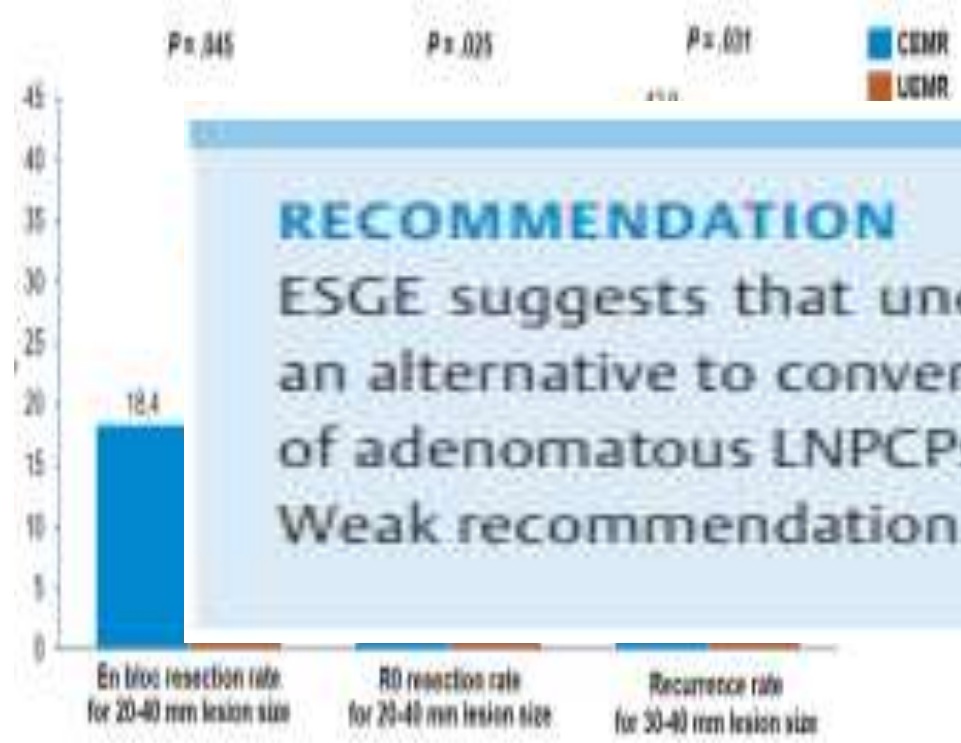


Table 3. Adverse Events

Parameter	CEMR Group, (n/total) %	UEMR Group, (n/total) %	P Value
Delayed bleeding			
<48 hours	(2/76) 2.6	(1/81) 1.2	
>48 hours	(0/76) 0	(0/81) 0	.611 ^d
Intraprocedural perforation	(0/76) 0	(0/81) 0	>.999 ^a
Delayed perforation	(0/76) 0	(0/81) 0	>.999 ^a

Duré : UEMR 7 mn VS CEMR 13 mn

Underwater vs Conventional Endoscopic Mucosal Resection of Large Sessile or Flat Colorectal Polyps: A Prospective Randomized Controlled Trial



RECOMMENDATION
 ESGE suggests that underwater EMR can be considered an alternative to conventional hot EMR for the treatment of adenomatous LNPCPs.
 Weak recommendation, moderate quality of evidence.

Table 3. Adverse Events

Adverse Event	P Value
...	.611 ^d
...	>.999 ^d
...	>.999 ^d

Durre de procedure UEMR 7 mn CEMR 13 mn

Dissection sous muqueuse

ENDOSCOPIC SUBMUCOSAL DISSECTION (ESD) VERSUS PIECE-MEAL ENDOSCOPIC MUCOSAL RESECTION (PM-EMR) FOR LARGE LATERALLY SPREADING LESIONS: FRENCH RANDOMIZED CONTROLLED TRIAL RESECT-COLON

[J r mie Jacques](#) · [Timothee Wallenhorst](#) · [Jean-Baptiste Chevaux](#) · ... · [Martin Dahan](#) · [Thierry Ponchon](#) · [Mathieu Pioche](#)... [Show more](#)

- 6 centers in France, 11 endoscopists, 359 patients
- > 25mm lesions (Excluded II-c, nongranular pseudo-depressed and rectal for ethical reasons)

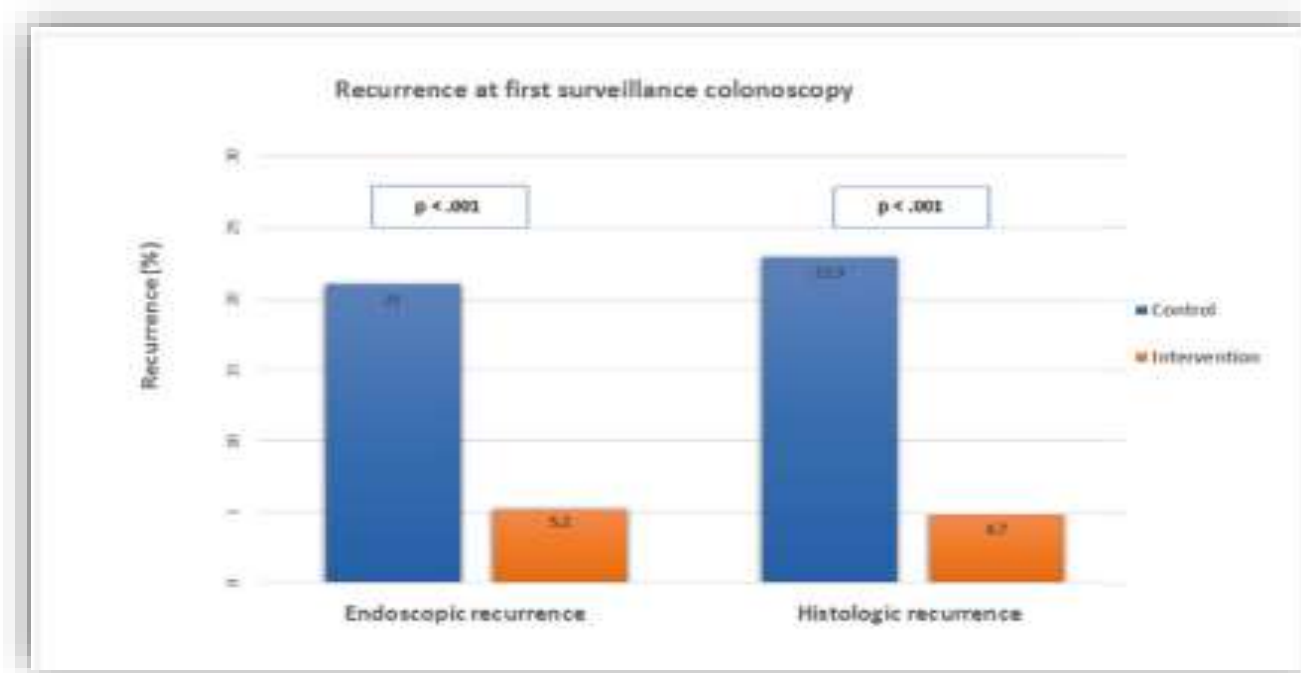
	EMR	ESD	
R0 Resection	12%	94%	P < 0.001
Superficial Submucosal CA	0.5%	3.5%	P = 0.08
Deep Submucosal CA	3.8%	4%	P = NS
Recurrence at 6 m	5.1%	0.6%	P = 0.02
Delayed bleeding	5.5%	7.9%	P = NS
Surgery for Complications	0%	1%	P = NS
Duration	71 min	113 min	P < 0.001

Thermo-ablation des berges

Thermal Ablation of Mucosal Defect Margins Reduces Adenoma Recurrence After Colonic Endoscopic Mucosal Resection

Etude prospective
390 LST (> 20 mm)

Coloscopie avec Bx
(5 a 6 mois)



In this multi-center randomized trial, thermal ablation of the post EMR mucosal defect margin resulted in a four fold reduction in adenoma recurrence at first surveillance colonoscopy

Thermo-ablation des berges

Thermal Ablation of Mucosal Defect Margins Reduces Adenoma Recurrence After Colonic Endoscopic Mucosal Resection

Recurrence at first surveillance colonoscopy

RECOMMENDATION

ESGE recommends that, after conventional EMR of LNPCPs, resection margins should be treated by thermal ablation using STSC to prevent adenoma recurrence. Strong recommendation, high quality of evidence.

In this multi-center randomized trial, thermal ablation of the post EMR mucosal defect margin resulted in a four fold reduction in adenoma recurrence at first surveillance colonoscopy

Clips préventifs

Hémorragie retardée après EMR

Polype :
Taille (> 20 mm)
Siège (proximal)
Morphologie

Patient :
HTA
Insu rénal

Anti coagulant
Anti plaque

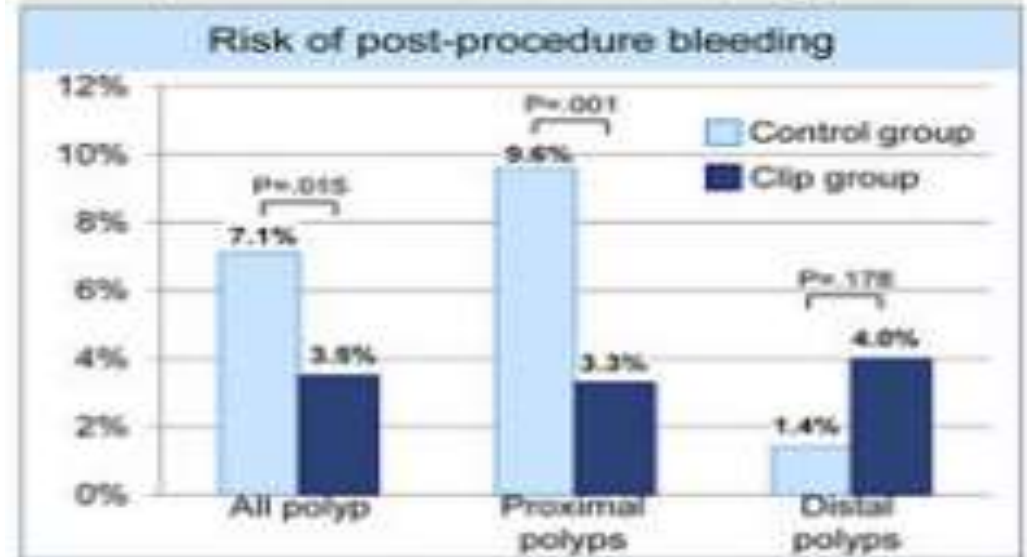
RECOMMENDATION

ESGE suggests against routine prophylactic clipping after conventional polypectomy for lesions <20 mm and for lesions ≥20 mm in the left colon because of a lack of evidence.

Weak recommendation, low quality of evidence.

Clip Closure Prevents Bleeding After Endoscopic Resection of Large Colon Polyps in a Randomized Trial

RCT: 919 patients with ≥20 mm non-pedunculated colorectal polyps



In this multi-center randomized trial, clip closure of the EMR mucosal defect significantly reduced post-procedure bleeding. The effect appeared to be restricted to large polyp in the proximal colon.

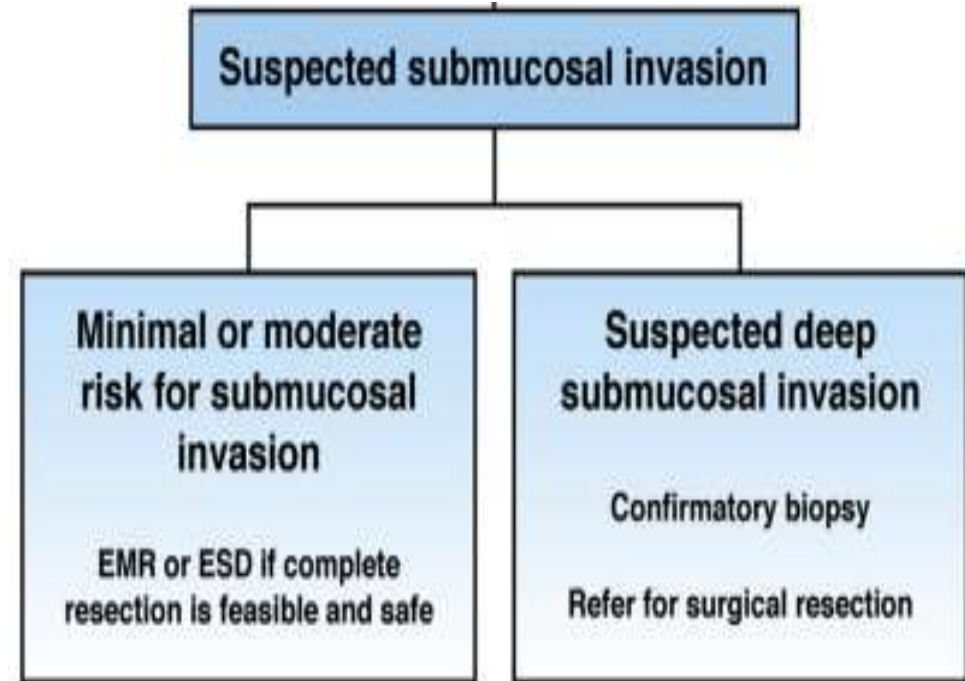
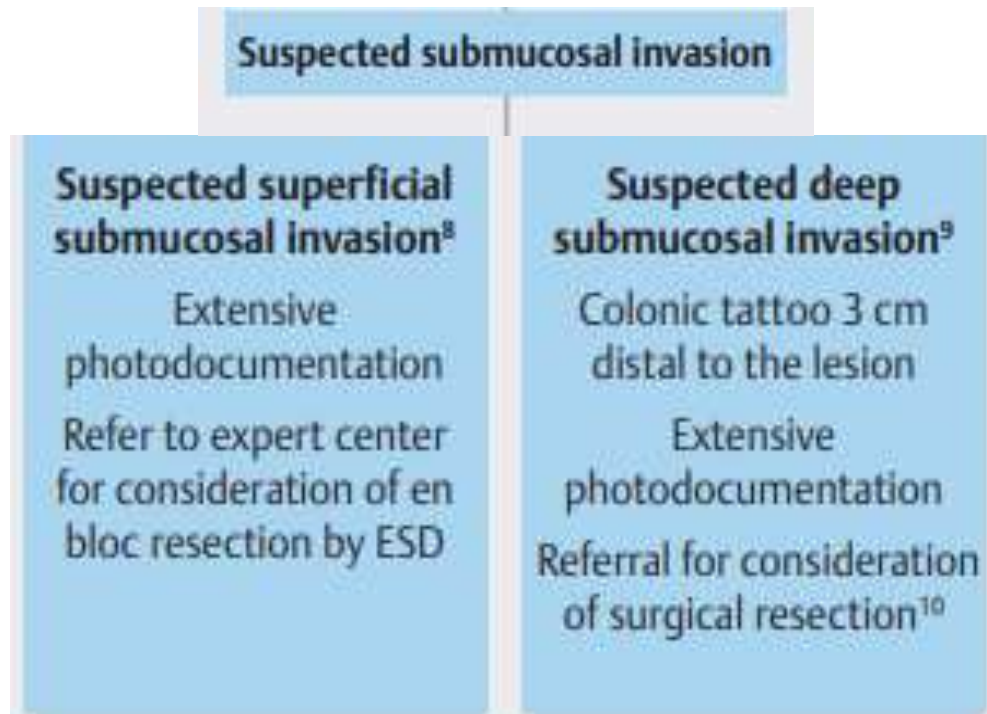
Conclusion



- La caractérisation du polype est primordiale et déterminante +++
- Il y a une révolution de l'utilisation de l'anse froide avec extension de ces indications
- Les nouvelles recommandations permettent de réduire la récurrence.
- On ne touche pas un polype si on ne peut pas le réséquer en entier

Polype > 10 mm

- Présence de signes endoscopique d'une infiltration sous muqueuse



POLYPE COLORECTAL

PEDICULE

Sessile > 20 mm

RESECTION EN BLOC

LESION BENIGNE

Kc SOUS MUQUEUX

HISTOLOGIE FAVORABLE

HISTOLOGIE NON FAVORABLE

SURVEILLANCE

CHIRURGIE

Infiltration pedicule Haggit 4
Marge < 2 mm
Peux différentié
Invasion lympho Vx

Conclusion

POLYPE COLORECTAL

Sessile > 20 mm

NICE I ou II

NICE III

RESECTION ENDOSCOPIQUE

CHIRURGIE

définition

≠ les lésions pédiculées des
(Laterally Spreading Tumours LST)
sur plus de 20 mm

Les LST et , les polypes de
localisations difficiles : un centre
d'endoscopie expert

Utilisation de techniques d'endoscopie
diagnostique avancée (chromoendoscopie,
magnification)

Polype sessile :

- Anse chaude / Anse froide
- Injection de sérum adrénaline

Best Practice Advice 8: Do not routinely use clips to close resection sites for polyps <20 mm.

- MERCI