“Quelles sont les indications respectives de la mucosectomie ou de la dissection endoscopique dans les polypes du rectum et du colon” ?

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QUELQUES DEFINITIONS

- EMR : mucosectomie
- **pEMR** : mucosectomie en plusieurs fragments
- **ESD** : dissection endoscopique
- **LST** : Lateral Spread Tumor (“tumeur villeuse”)
- Polype de grande taille > 2cm
- **T1sm** : cancers avec atteinte de la sous muqueuse
- **Resection “en bloc**” : 1 seul fragment
- **Resection “en bloc” R0** : 1 fragment avec *l’absence d’adenome ou de carcinome sur les marges latérales et profondes* de la résection à l’examen anatomo pathologique
- **Résection “En bloc” R0 “curative”** : Résection en bloc R0 associée avec l’absence de signes histologiques prédictifs de métastases ganglionnaires

QUESTIONS POSEES ?

- **L'expérience japonaise de la dissection est elle transposable en France ?**
- Comment choisir la technique ?
- Comment diminuer le nombre de récidive en mucosectomie ?

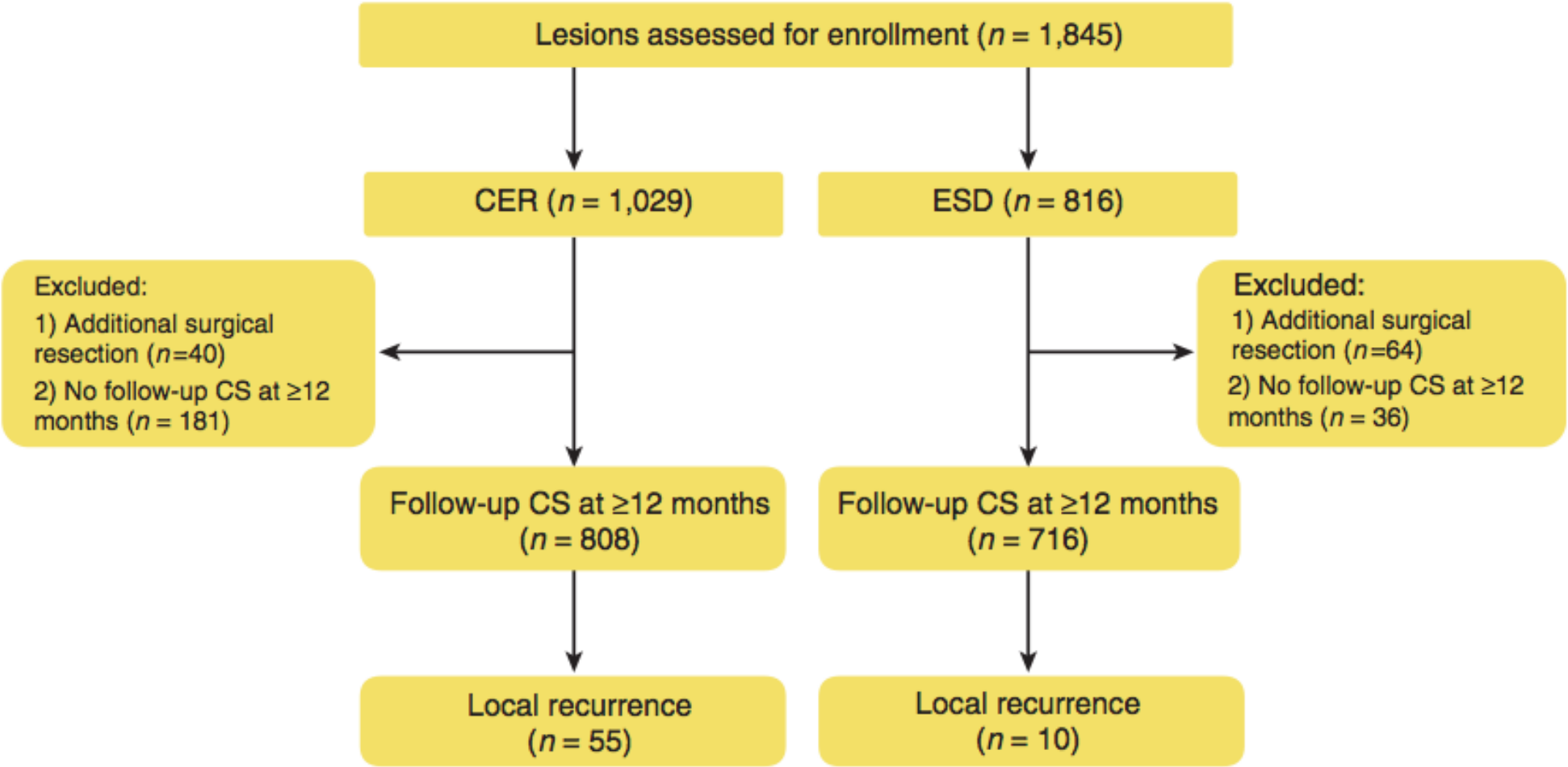
L'EXPERIENCE JAPONAISE

Local Recurrence After Endoscopic Resection for Large Colorectal Neoplasia: A Multicenter Prospective Study in Japan

Shiro Oka, MD[1], Shinji Tanaka, MD[1], Yutaka Saito, MD[2], Hiroyasu Iishi, MD[3], Shin-ei Kudo, MD[4], Hiroaki Ikematsu, MD[5], Masahiro Igarashi, MD[6], Yusuke Saitoh, MD[7], Yuji Inoue, MD[8], Kiyonori Kobayashi, MD[9], Takashi Hisabe, MD[10], Osamu Tsuruta, MD[11], Yasushi Sano, MD[12], Hiroo Yamano, MD[13], Seiji Shimizu, MD[14], Naohisa Yahagi, MD[15], Toshiaki Watanabe, MD[16], Hisashi Nakamura, MD[17], Takahiro Fujii, MD[18], Hideki Ishikawa, MD[19], Kenichi Sugihara, MD[20] and the Colorectal Endoscopic Resection Standardization Implementation Working Group of the Japanese Society for Cancer of the Colon and Rectum, Tokyo, Japan

Am J Gastroenterol 2015; 110:697–707;

L'EXPERIENCE JAPONAISE



Am J Gastroenterol 2015; 110:697–707;

L'EXPERIENCE JAPONAISE

Table 5. Multivariate logistic regression analysis of predictive factors associated with local recurrence after endoscopic resection

Predictive factor of local recurrence	Odds ratio (95% CI)	Relevant factor
CER		
Piecemeal resection	3.32 (1.50–7.90)	*En bloc* resection
LST-G	3.06 (1.62–6.00)	LST-NG/polypoid
Tumor size ≥40 mm	2.25 (1.12–4.43)	Tumor size <40 mm
Pre-treatment magnification (–)	2.06 (1.05–3.96)	Pre-treatment magnification (+)
Operator experience <10 years	1.88 (1.02–3.44)	Operator experience ≥11 years
ESD		
Piecemeal resection	19.43 (4.24–92.4)	*En bloc* resection

L'EXPERIENCE JAPONAISE

Table 6. Local recurrence according to the number of pieces resected by endoscopic resection

	Number of pieces			
ER method	**1**	**2**	**3**	**4**
CER	10/430 (2.3%)	7/143 (4.9%)	8/78 (10.3%)	40/157 (25.5%)
ESD	5/680 (0.7%)	2/14 (14.3%)	1/10 (10.0%)	2/12 (16.7%)
Total	15/1,110 (1.4%)	9/157 (5.7%)	9/88 (10.2%)	42/169 (24.9%)

Factors	Total	CER	ESD	*P* value
Number of lesions	1,524	808	716	
Tumor location				
Right colon	759 (49.8%)	430 (53.2%)	329 (45.9%)	<0.01
Left colon	383 (25.1%)	251 (31.1%)	132 (18.4%)	
Rectum	382 (25.1%)	127 (15.7%)	255 (35.6%)	
Tumor size				
Average±s.d., mm	32.8±15.7	26.7±9.0	39.6±18.6	<0.01
Growth type				
LST-G	711 (46.7%)	307 (38.0%)	404 (56.4%)	
LST-NG	364 (23.9%)	119 (14.7%)	245 (34.2%)	<0.01
Polypoid	449 (29.5%)	382 (47.3%)	67 (9.4%)	
Histology				
Low-grade dysplasia	650 (42.7%)	409 (50.6%)	241 (33.7%)	
High-grade dysplasia	722 (47.4%)	358 (44.3%)	364 (50.8%)	NS
T1 carcinoma (<1,000 μm)	101 (6.6%)	23 (2.8%)	78 (10.9%)	
T1 carcinoma (≥1,000 μm)	50 (3.3%)	18 (2.2%)	32 (4.5%)	
Experience of operators				
<10 Years	495 (32.5%)	311 (38.5%)	184 (25.7%)	<0.01
≥11 Years	1,029 (67.5%)	497 (61.5%)	532 (74.3%)	<0.01
Resection method				
En bloc	1,110 (72.8%)	430 (53.2%)	680 (95.0%)	
Piecemeal	414 (27.2%)	378 (46.8%)	36 (5.0%)	

L'EXPERIENCE JAPONAISE

Table 7. Characteristics of local recurrent lesions according to the initial endoscopic resection method

Lesion characteristics	Initial ER method			*P* value
	Total, *n*=65	CER, *n*=55	ESD, *n*=10	
Interval after ER (months)	6.8	6.8	6.8	NS
Tumor size (mm)				
<10	53 (81.5%)	46 (83.6%)	7 (70.0%)	NS
≥10	12 (18.5%)	9 (16.4%)	3 (30.0%)	
Macroscopic type				
Protruded	30 (46.2%)	25 (45.5%)	5 (50.0%)	NS
Superficial	34 (52.3%)	29 (52.7%)	5 (50.0%)	
Mixed	1 (1.5%)	1 (1.8%)		
Histology				
Dysplasia	63 (96.9%)	53 (96.4%)	10 (100%)	NS
T1 carcinoma	1 (1.5%)	1 (1.8%)		
T2 carcinoma	1 (1.5%)	1 (1.8%)		
Additional treatment				
Endoscopy	56 (86.2%)	47 (85.5%)	9 (90.0%)	NS
Surgery	4 (6.2%)	3 (5.5%)	1 (10.0%)	
Observation (no treatment)	5 (7.7%)	5 (9.1%)		

ETUDE PROSPECTIVE,MULTICENTRIQUE AUSTRALIENNE

- 7 Centres experts (nb EMR/ centre médiane = 45)
- Polypes sessiles > 2cm :
  - Classification de Paris
  - Classification LST
  - Classification de Kudo
- N=479 patients consécutifs dont 33 avec un cancer T1sm
- Si Taille > 25mm : coloscopie à 4 et 12 mois
- Si taille 20-25mm et EMR en 1 ou 2 fragments coloscopie à 12 mois
- Biopsies de la cicatrice systématique
- Recueil prospectif des complications à J14

GASTROENTEROLOGY 2011;140:1909-1918

EMR : ETUDE PROSPECTIVE, MULTICENTRIQUE AUSTRALIENNE

- Durée moyenne : **25** minutes
- Procédure en ambulatoire
- Nombre médian de fragments : 4 (2-6)
- EMR effectuée : 97%
- Résection complète : **89%**
  - 5% chirurgie
  - 5% 2e EMR (80% de succés)
- Taux de recurrence ou résidus à 4 mois : **20%**
  - Facteurs de risque :
    - Taille > 40mm
    - Utilisation du plasma Argon
  - 2e Traitement endoscopique efficace :
- Complications : Hémorragie : 2.9% Perforations : 1.9%

GASTROENTEROLOGY 2011;140:1909-1918

LA DISSECTION ENDOSCOPIQUE AU JAPON

- ESD : n=1111
- 10 Centres experts au Japon
- Indications :
  - LST – NG > 20mm
  - LST – G > 30mm
  - Autres : récidive ou récurrence avec absence de décollement
- Durée moyenne : **118 minutes**
- T1sm : 213 (20%)
- R0 en bloc résection : **88%**
- Complications :
  - Perforation : **4.9%**
  - Hémorragie : 1.5%
- Cout

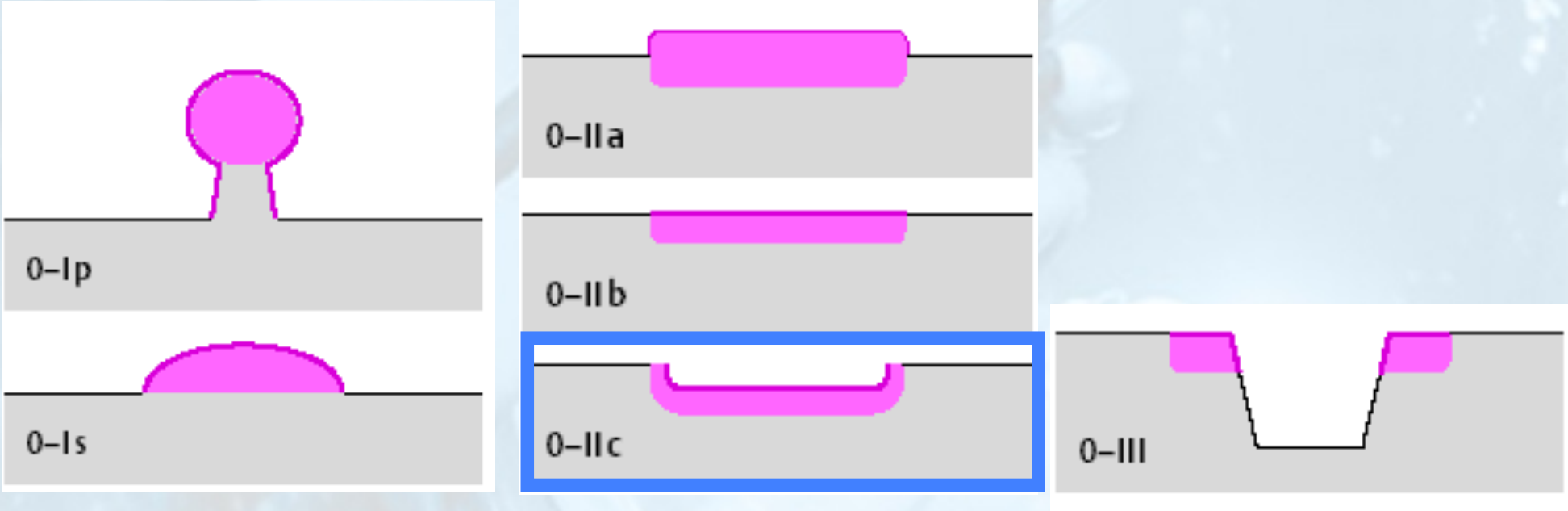
QUESTIONS POSEES ?

- L'expérience japonaise est elle transposable en France ?
- **Comment choisir la technique ?**
- Comment diminuer le nombre de récidive en mucosectomie ?

Table 1. Indication of endoscopic submucosal dissection for colorectal tumor

(1) Large-sized (larger than 20 mm in diameter) lesions in which *en bloc* resection using snare EMR is difficult, although it is indicative for endoscopic treatment
• LST-NG, particularly those of the pseudo-depressed type
• Lesions showing V_I type pit pattern
• Carcinoma with submucosal infiltration
• Large depressed type lesion
• Large elevated lesion suspected to be carcinoma[a]
(2) Mucosal tumors with fibrosis caused by biopsy or prolapse of the lesions due to peristalsis
(3) Sporadic localized tumors in chronic inflammation such as ulcerative colitis
(4) Local residual early carcinoma after endoscopic resection

1-ASPECT ENDOSCOPIQUE : CLASSIFICATION DE PARIS

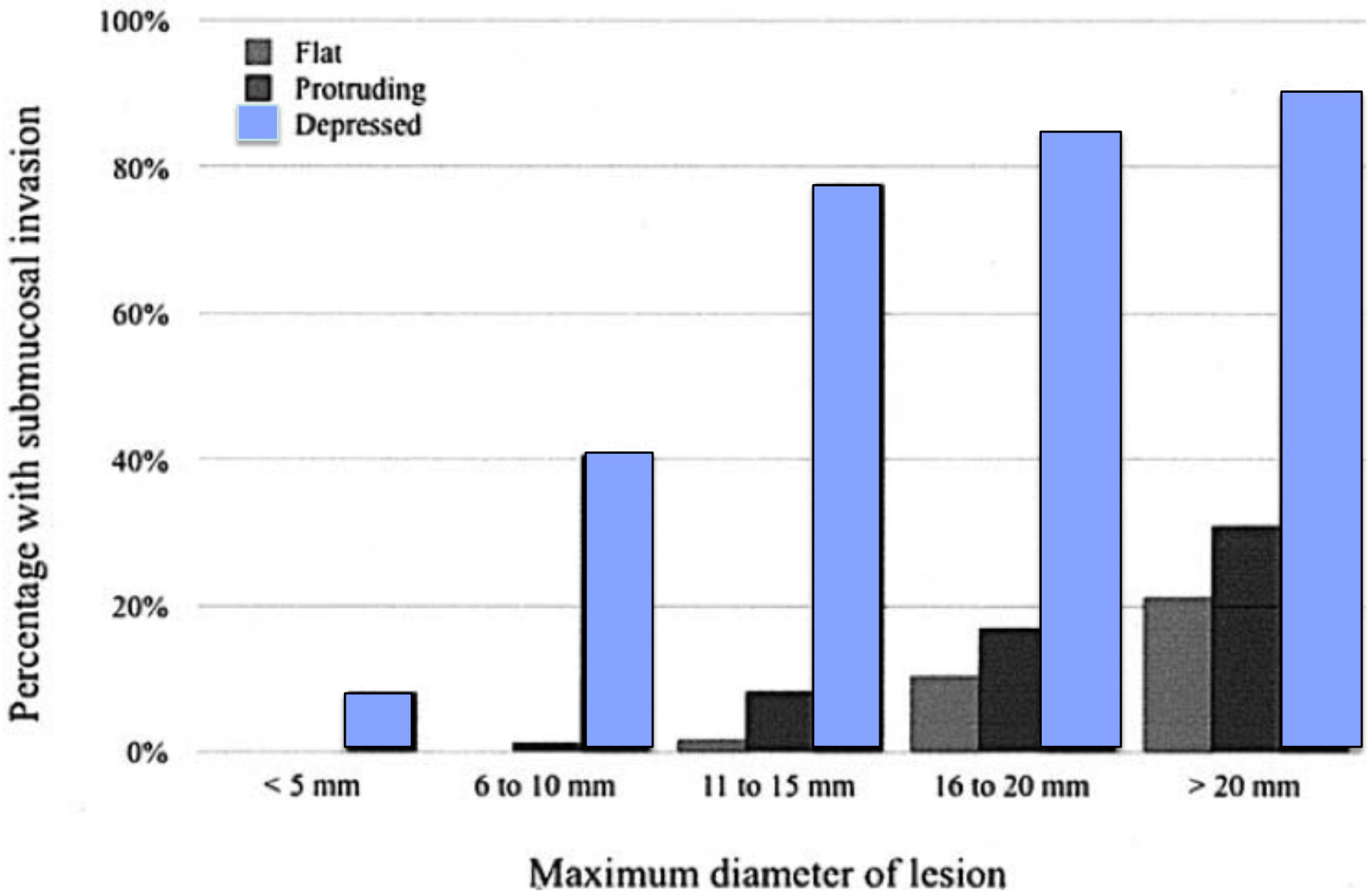


Hauteur > 2.5 mm muqueuse cylindrique

Profondeur < 1.2mm muqueuse cylindrique

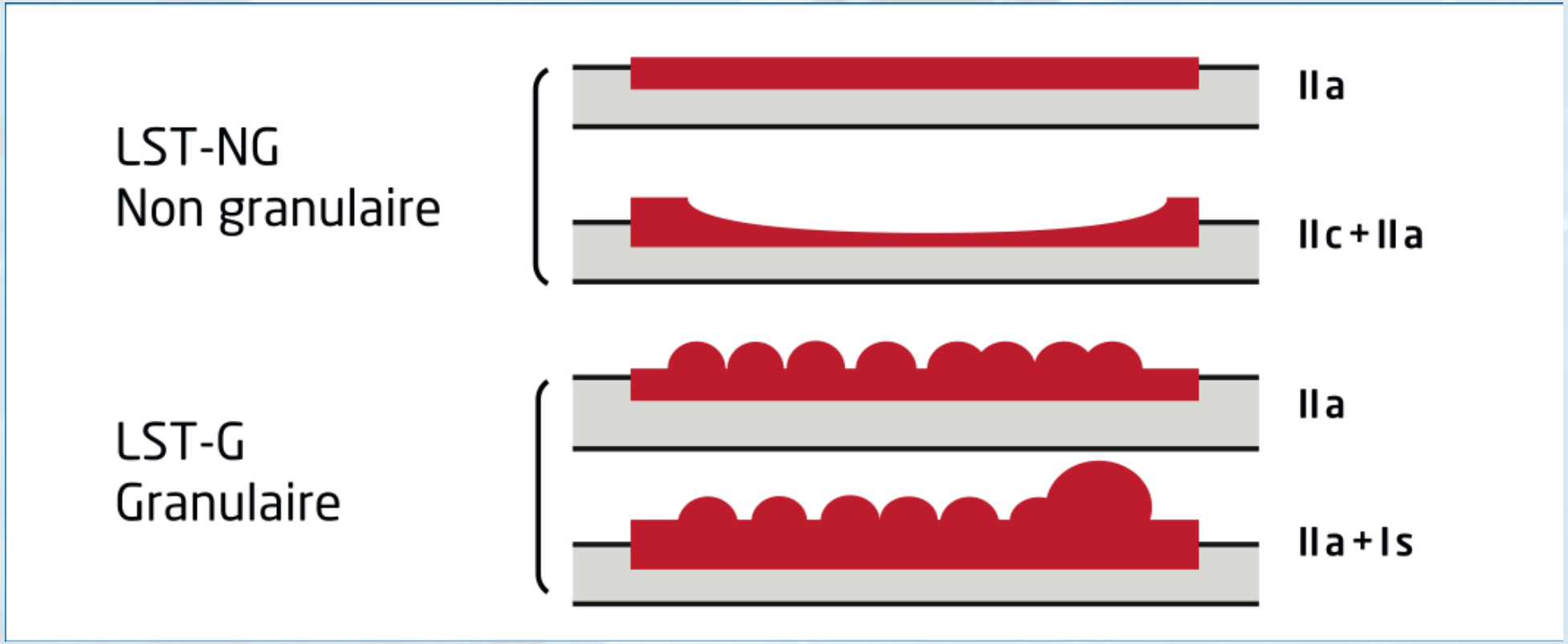
Lambert R et al. Superficial Neoplastic Lesions in the Digestive Tract · Endoscopy 2005; 37: 570–578

2-TAILLE



GASTROENTEROLOGY 2006;130:566–576

3-LST :LATERAL SPREAD TUMOR

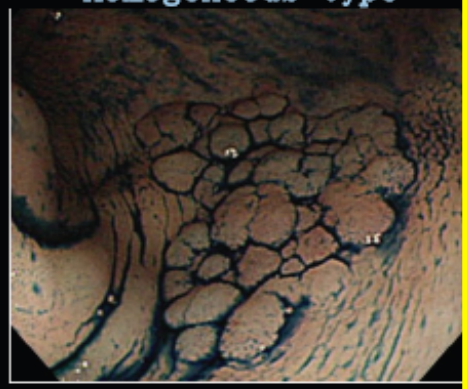


Volume 68, No. 4 : 2008 GASTROINTESTINAL ENDOSCOPY

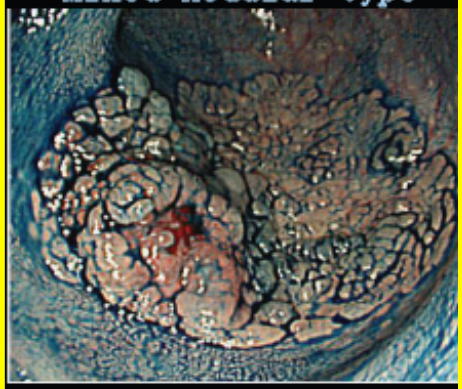
Laterally spreading tumor

Granular type
(LST-G)

Homogeneous type

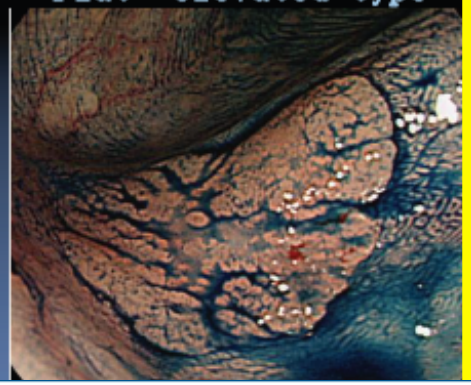


Mixed nodular type

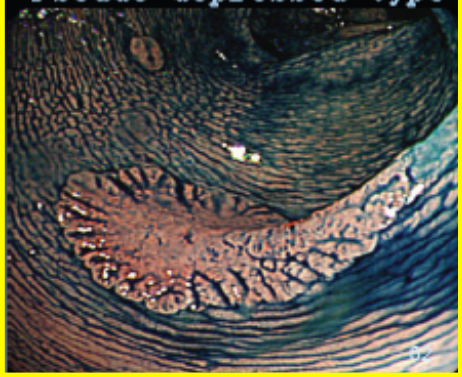


Non-granular type
(LST-NG)

Flat elevated type

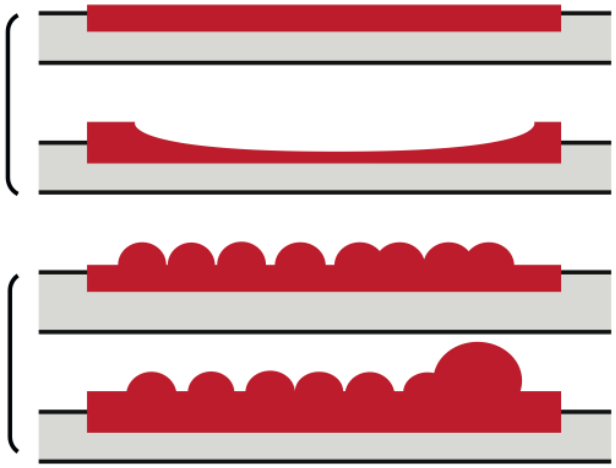


Pseudo depressed type



LST-NG
Non granulaire

LST-G
Granulaire



LST:RISQUE DE CANCERS T1sm

Sous type de LST	Taille (mm) 10-19	20-29	30-	Total	
LST Granulaire					
Type homogène	0 % 0/140	0.9 % 1/109	1.5 % 2/132	0 % 3/351	*
Type nodulaire et mixte	6.0 % 3/50	13.9 % 11/79	15.5 % 22/142	13.3 % 36/271	
LST Non granulaire					
Type surélevé	5.1 % 21/414	6.9 % 16/232	10.5 % 6/57	6.1 % 43/703	*
Type pseudo-déprimé	23.8 % 5/21	57.1 % 8/14	100 % 3/3	42.1 % 16/38	

* $P<0.01$ Jan. 1990-Sep. 2008, Departement of Endoscopy, Hiroshima University Hospital

Digestive Endoscopy (2009) **21** (Suppl. 1), S43–S46

RECHERCHE DE SIGNES ENDOSCOPIQUES DE CANCERS

DISEASES OF THE COLON & RECTUM

Colonoscopic Stigmata of 1 mm or Deeper Submucosal Invasion in Colorectal Cancer

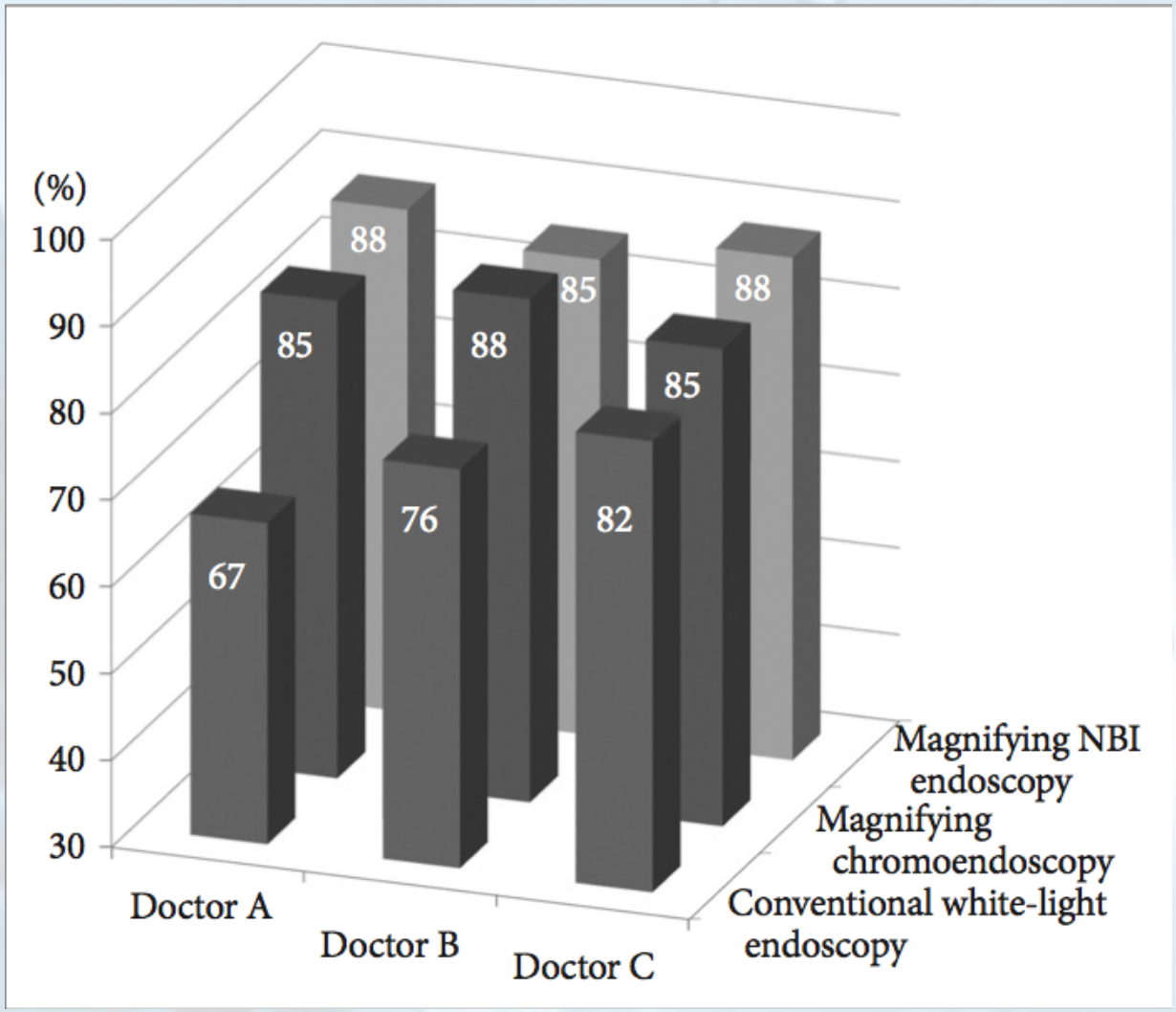
Table 2. Hazards of ≥1 mm submucosal invasion according to each colonoscopic finding

Variable	*OR (95 percent CI)*	*P value*	*Adjusted OR (95 percent CI)**	*Adjusted P value**
Deep depression	13.5 (2.6–69.8)	0.0019	6.6 (0.8–56.3)	0.084
Irregular surface	12.5 (4.6–34)	<0.0001	5.6 (1.7–19)	0.0056
Ulcer or erosion	7.1 (2.3–22.2)	0.0007	1.5 (0.3–7)	0.59
Fold convergence	1.5 (0.6–3.5)	0.39	—	—
Spontaneous bleeding	7.3 (2.5–21.2)	0.0002	4 (1.2–13)	0.024

OR = odds ratio calculated using logistic regression model; CI = confidence interval. • *Adjusted for deep depression, irregular surface, "ulcer or erosion" and spontaneous bleeding.

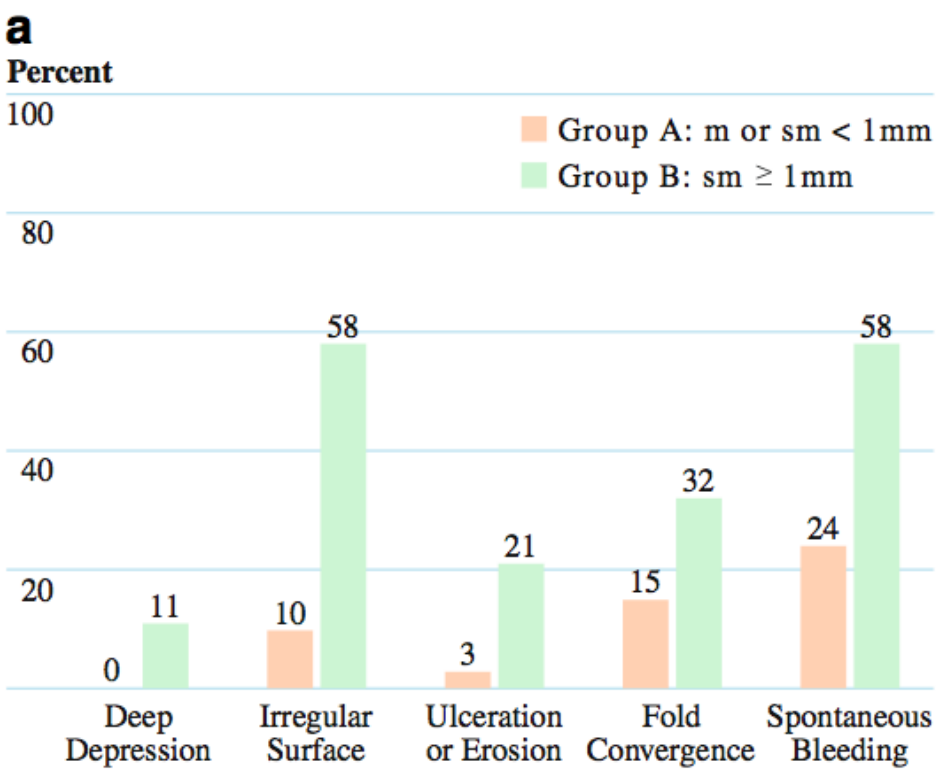
VOLUME 51: 1529–1534 (2008)

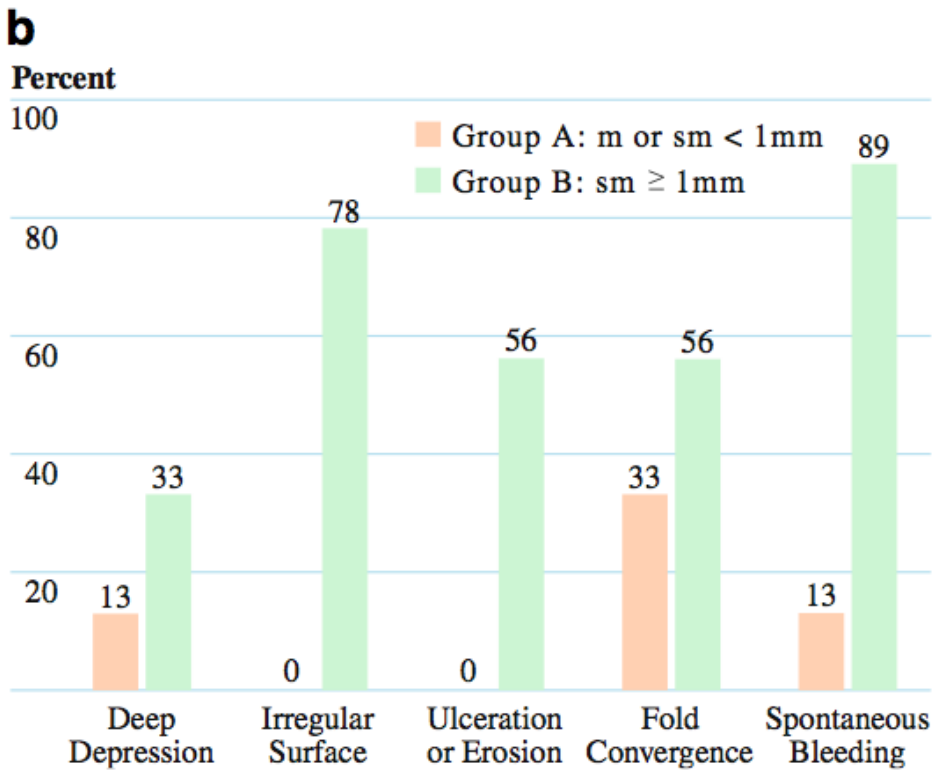
PERFORMANCES DE L'ENDOSCOPIE HD EN LUMIERE BLANCHE



Clin Endosc 2013;46:168-171

FREQUENCE DES SIGNES ENDOSCOPIQUE EN FONCTION PROFONFEUR ATTEINTE DANS LA SOUS MUQUEUSE





VOLUME 51: 1529–1534 (2008)

DISEASES OF THE COLON & RECTUM

Colonoscopic Stigmata of 1 mm or Deeper Submucosal Invasion in Colorectal Cancer

Table 3. Accuracies in combinations according to each morphology

Combination	*Morphology*	*Accuracy (%)*
IS alone	all	85.6
	flat	93.9
	protruded	82.1
SB alone	all	76.6
	flat	90.9
	protruded	72.8
IS or SB	all	77.5
	Flat	90.9
	Protruded	71.8
IS and SB	All	84.7
	Flat	90.9
	Protruded	82.1

IS = irregular surface; SB = spontaneous bleeding.

VOLUME 51: 1529–1534 (2008)

4-ANALYSE DU PIT PATTERN OU DU VASCULAR PATTERN : CLASSIFICATION DE SANO

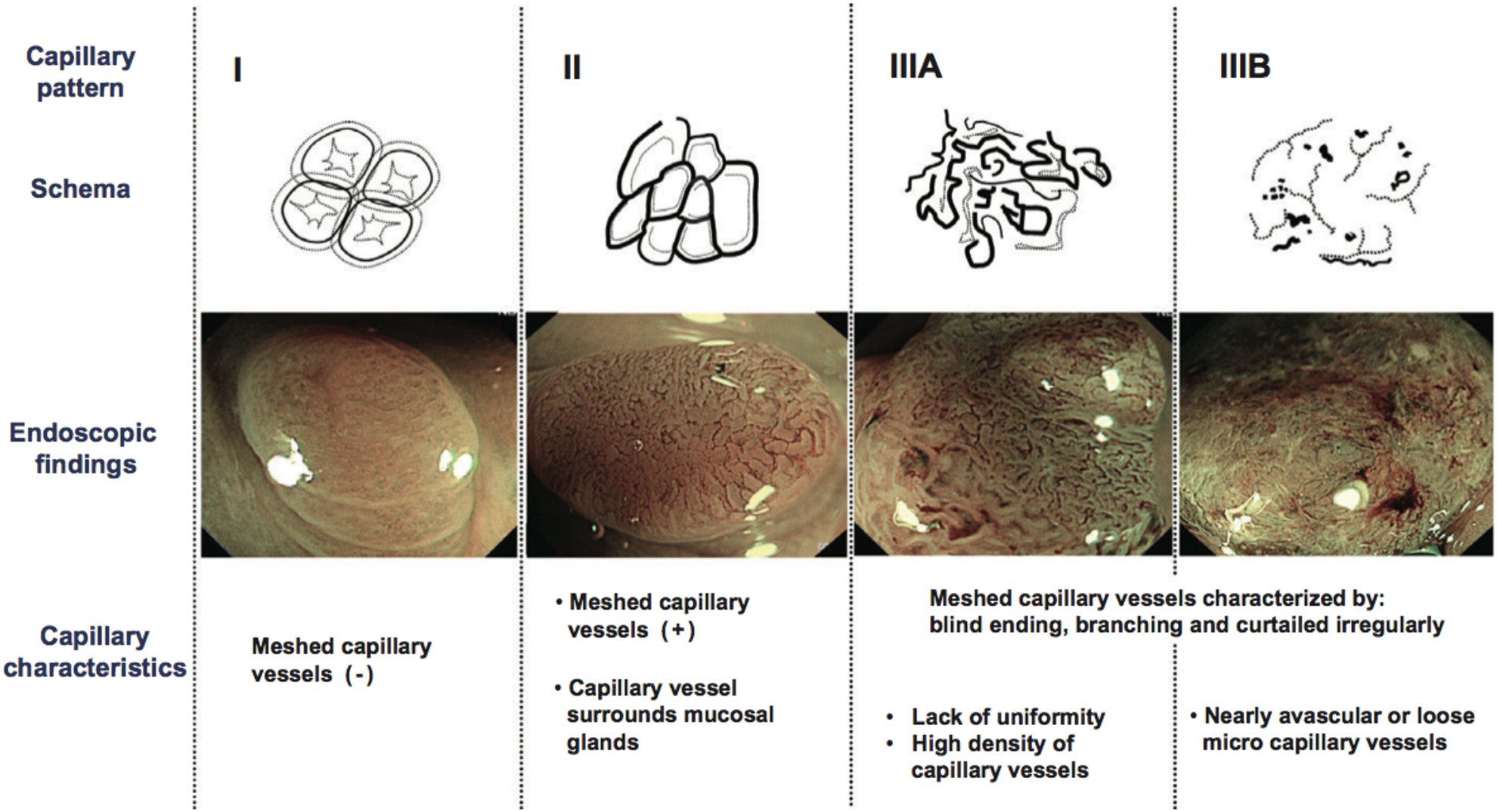


Fig. 2. Sano classification.

CLASSIFICATION DE SANO :
Distinction cancer intramuqueux/ sm1 vs sm2-sm3 (IIIa vs IIIb)

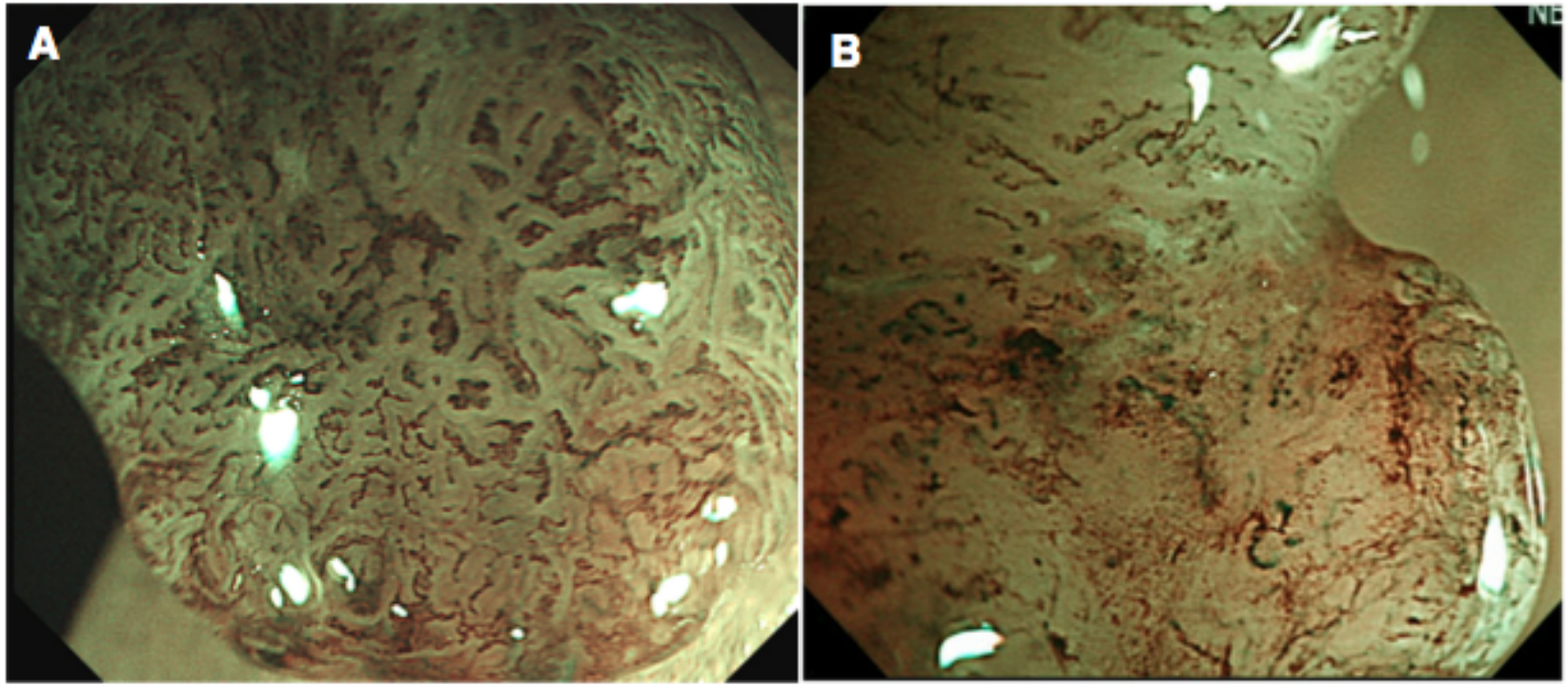


Figure 2 Capillary pattern type IIIA, IIIB (magnifying NBI image at full max 75 times). A : Capillary pattern type IIIA. B : Capillary pattern type IIIB.

Ikematsu *et al. BMC Gastroenterology* 2010, **10**:33

CLASSIFICATION DE SANO :

Distinction cancer intramuqueux/ sm1 vs sm2-sm3 (IIIa vs IIIb)

Table 2: Sensitivity, specificity and diagnostic accuracy of the CP Type III

	Histological diagnosis	
	M*, SM-superficial (SM1)**	SM-deep(SM2-3)#
CP type IIIA	86	5
CP type IIIB	11	28

Sensitivity: 84.8%, Specificity: 88.7%, Accuracy: 87.7%,
NPV (negative predictive value): 94.5%, PPV (positive predictive value): 71.8%
* intramucosal cancer, ** SM superficial invasion (<1000 µm), # SM deep invasion (≥ 1000 µm)

Ikematsu *et al. BMC Gastroenterology* 2010, **10**:33

QUESTIONS POSEES ?

- L'expérience japonaise est elle transposable en France ?
- Comment choisir la technique ?
- **Comment diminuer le nombre de récidives en mucosectomie ?**

Risk Stratification System for Evaluation of Complex Polyps Can Predict Outcomes of Endoscopic Mucosal Resection

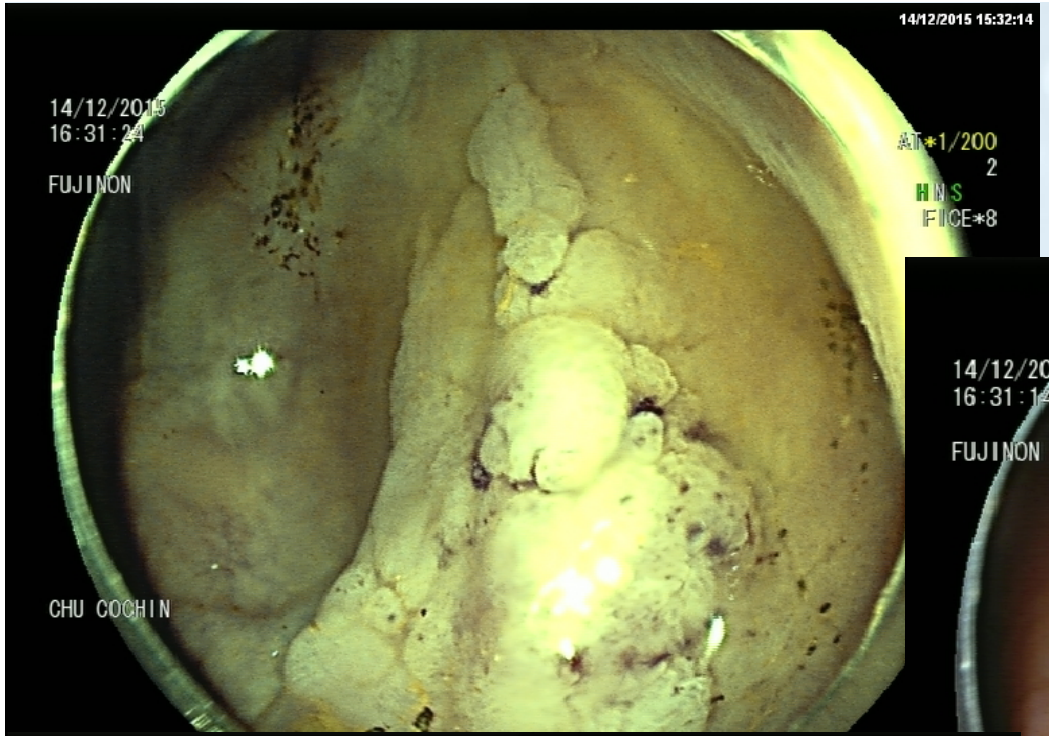
TAILLE Point	< 1 cm 1	< 2cm 3	< 3cm 5	< 4cm 7	> 4cm 9
Morphologie	Ip 1	Is 2	IIa 3		
Siège	Colon G 1	Colon D 2			
Accès	Facile 1	Diff 3			

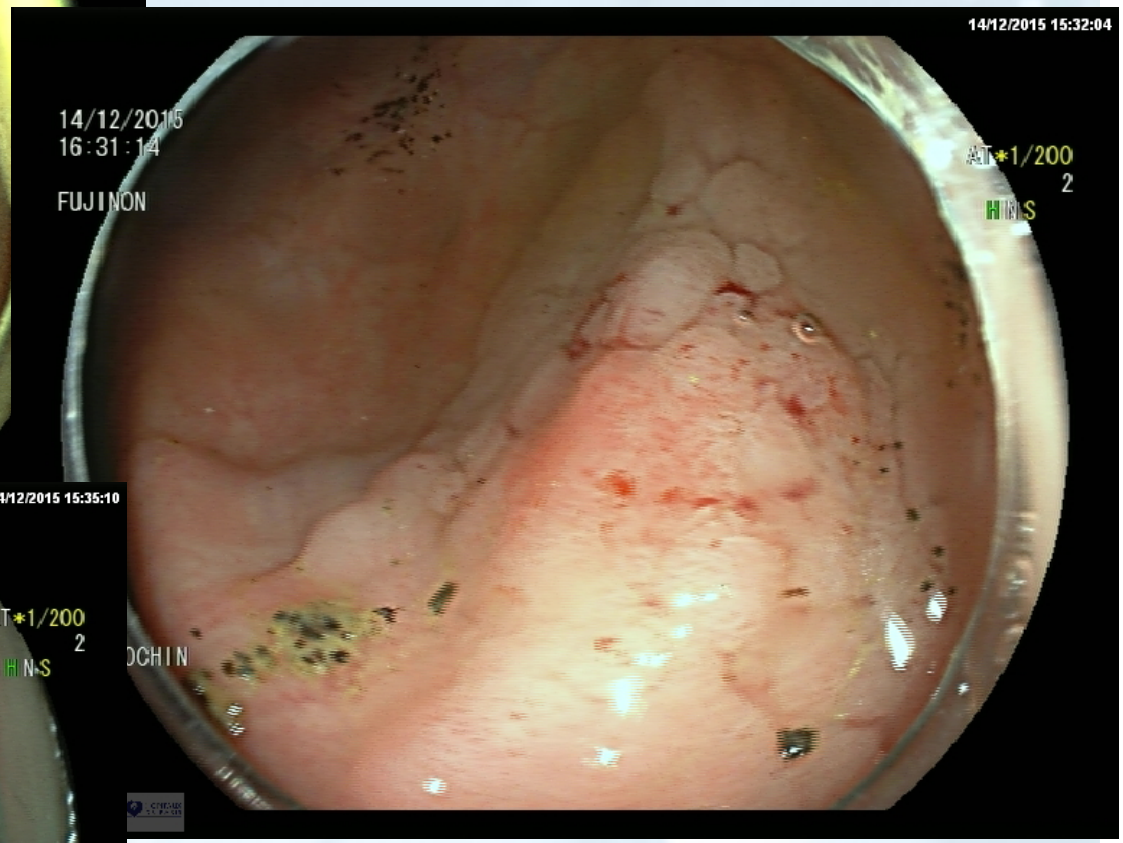
Niveau 1	Niveau 2	Niveau 3	Niveau 4
4-5	6-8	9-12	> 12

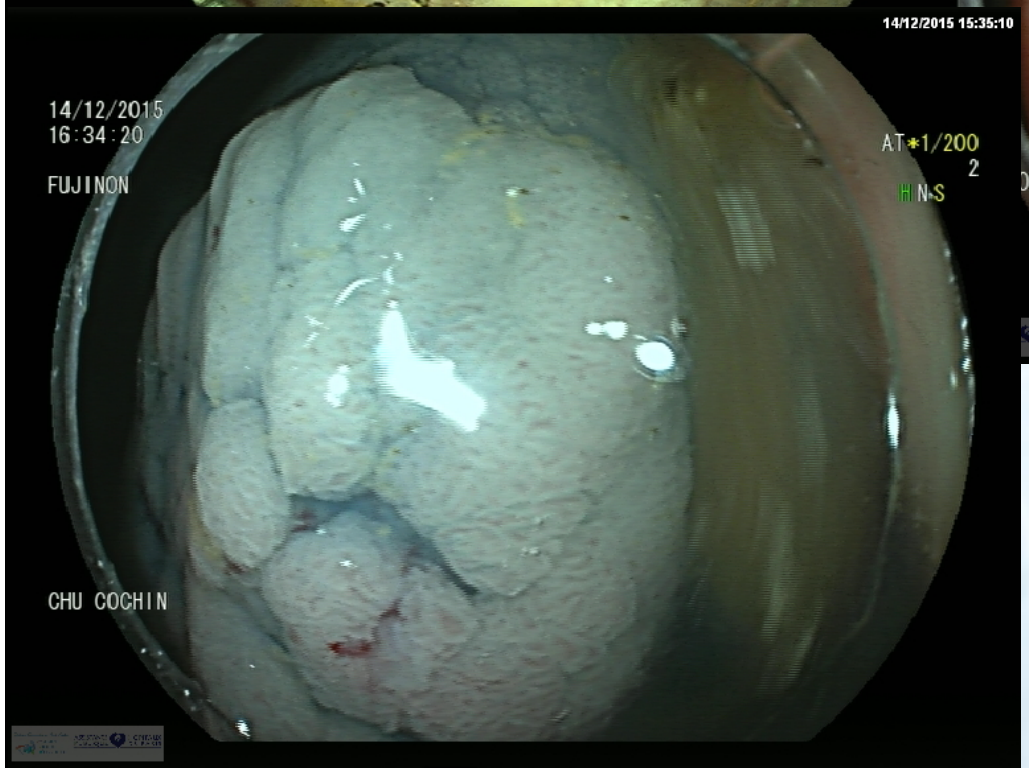
Diseases of the Colon & Rectum Volume 56: 8 (2013)

TACTIQUE DE RESECTION
EMR en plusieurs fragments

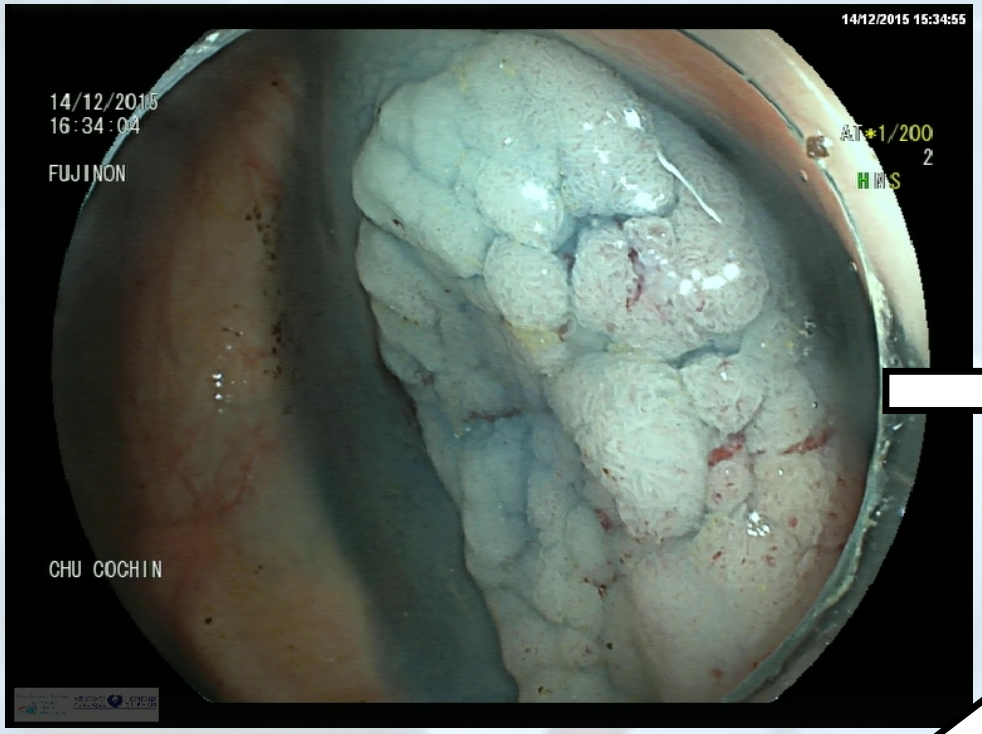
Résection d'une lésion plane type IIa LST-G sans macronodule du caecum de 25mm de diamètre







Lésion plane type IIa LST-G sans macronodule du caecum, de 25mm de diamètre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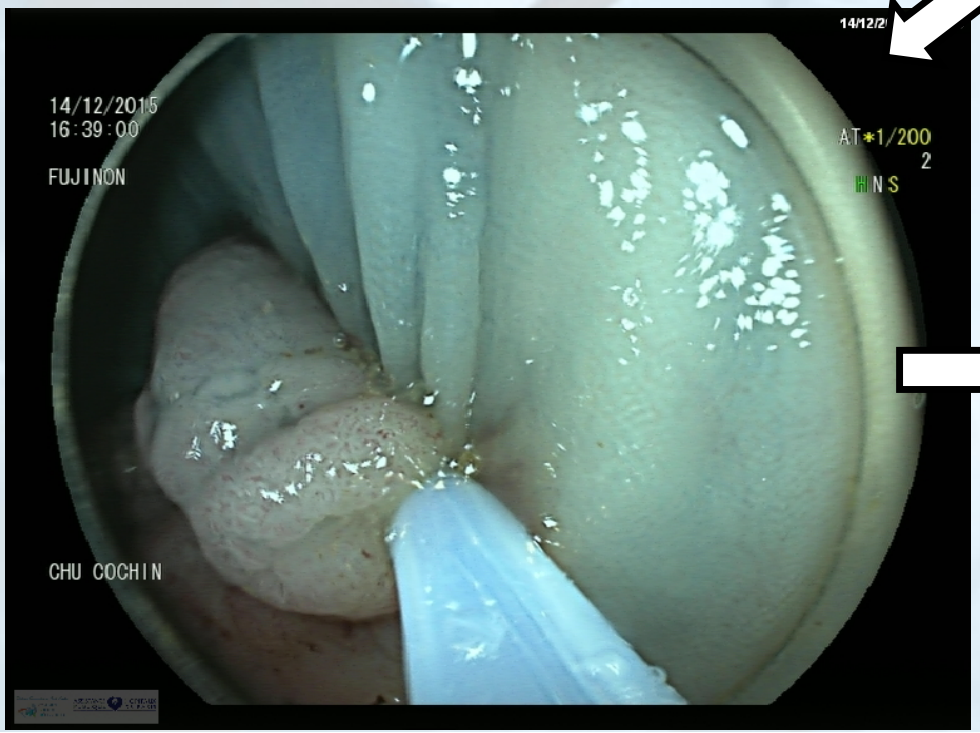
14/12/2015
16:34:04
FUJINON
AT*1/200
2
CHU COCHIN

14/12/2015 15:39:20
14/12/2015
16:38:36
FUJINON
AT*1/200
2
CHU COCHIN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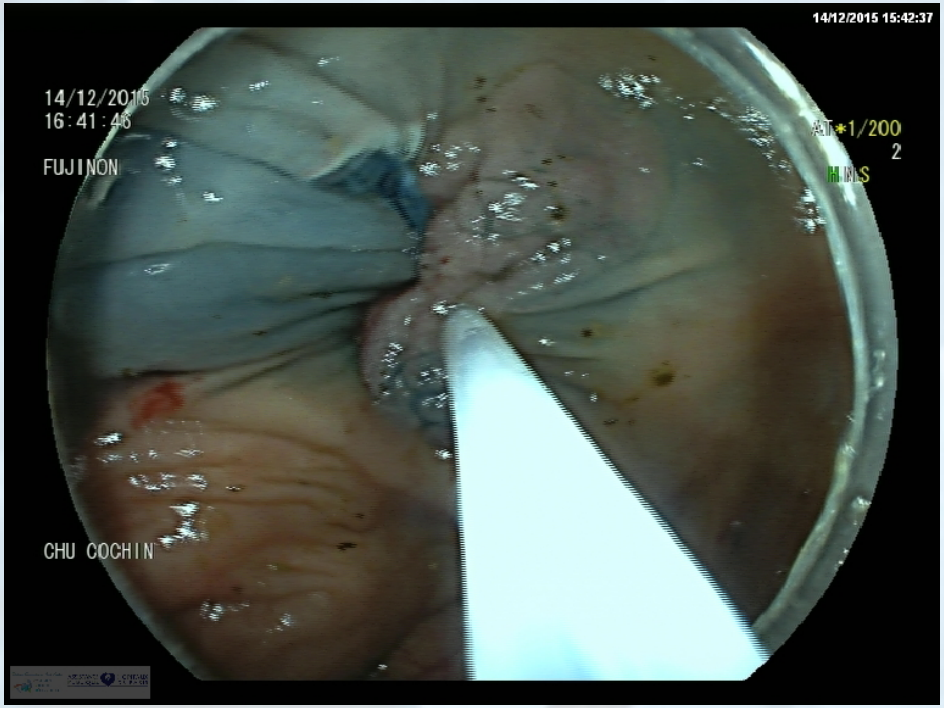
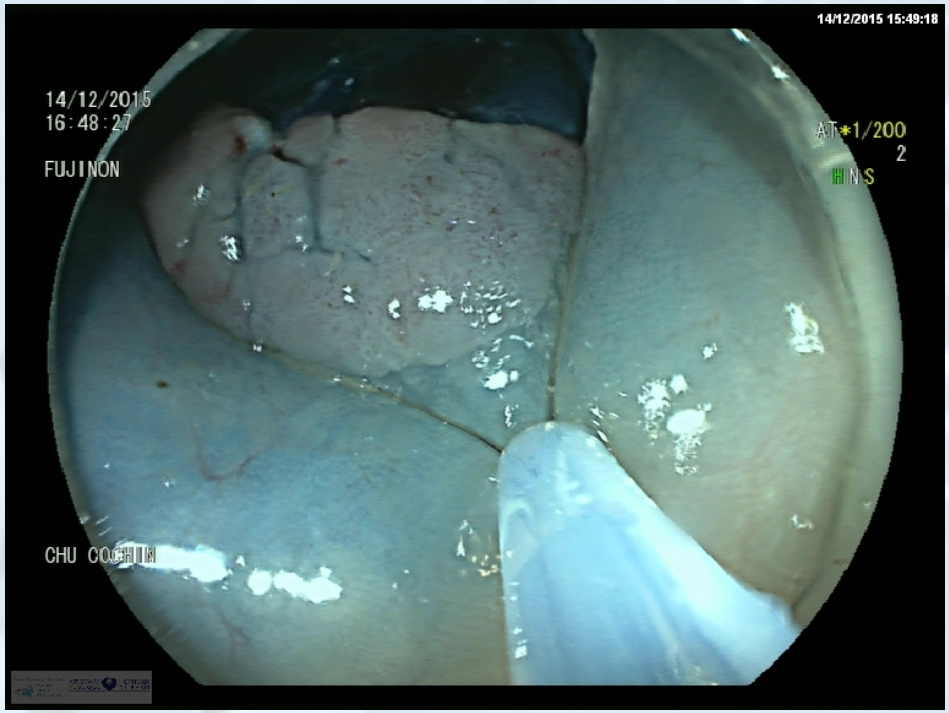
CHU COCHIN





Anapath:
Adénome tubulovilleux en dysplasie de haut grade. Marges d’exérèse en zone saine.

Table 1. Indication of endoscopic submucosal dissection for colorectal tumor

(1) Large-sized (larger than 20 mm in diameter) lesions in which *en bloc* resection using snare EMR is difficult, although it is indicative for endoscopic treatment
• LST-NG, particularly those of the pseudo-depressed type
• Lesions showing V_I type pit pattern
• Carcinoma with submucosal infiltration
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(2) Mucosal tumors with fibrosis caused by biopsy or prolapse of the lesions due to peristalsis
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