



# BEST OF Endoscopie Thérapeutique

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## ORIGINAL ARTICLE

# Safety and feasibility of same-day discharge after endoscopic submucosal dissection: a Western multicenter prospective cohort study

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Gainesville, Orlando, Florida; Boston, Massachusetts; Hartford, Connecticut; Baltimore, Maryland; Chicago, Illinois; Houston, Texas; Fort Wayne, Indiana; Chapel Hill, North Carolina; Ottawa, Ontario, Canada; Charleston, South Carolina, USA



Évaluer la sécurité et la faisabilité de la dissection sous-muqueuse en ambulatoire, ainsi que les facteurs qui mènent à une hospitalisation

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**Featured Articles**

Performance and safety of motorized spiral enteroscopy: a systematic review and meta-analysis

Endoscopic closure of refractory upper GI-tracheobronchial fistulas with a novel occluder: a prospective, single-arm, single-center study (with video)

Short-term outcomes after peroral endoscopic myotomy, Heller myotomy, and pneumatic dilation in patients with achalasia: a nationwide analysis

EUS-guided enterocolostomy with lumen-apposing metal stent for palliation of malignant small-bowel obstruction (with video)

**Underwater vs. Conventional EMR of Large Nonpedunculated Colorectal Lesions**

**UEMR** **CEMR**

**Recurrence in the Total cohort and by polyp size subgroups**

Subgroup	UEMR (%)	CEMR (%)	p-value
Total	10.7	13.1	p=0.542
20-30mm	11.1	14.1	p=0.851
30-40mm	9.7	11.7	p=0.317

**ELSEVIER**

An Official Publication of the American Society for Gastrointestinal Endoscopy **ASGE**

## Méthode

- Analyse post-hoc d'une cohorte multicentrique prospective
- Toutes les dissections sous-muqueuses
- Entre avril 2016 et avril 2021
- 10 centres : Etats-Unis et Canada



Evaluer la sécurité et la faisabilité d'une prise en charge ambulatoire  
Evaluer les facteurs associés à une hospitalisation

# Résultats

**TABLE 1. Baseline characteristics of patients who underwent ESD during study period**

Characteristic	Value (N = 831)
Age, median (IQR), y	67 (57-74)
Male gender	477 (57%)
ASA class	
I	82 (10%)
II	374 (45%)
III	355 (43%)
IV	20 (2%)
Lesion location	
Esophagus	240 (29%)
Stomach	126 (15%)
Colorectum	465 (56%)
Lesion size, median (IQR), mm	44 (32-60)
Depressed morphology	
Yes	111 (13%)
No	720 (87%)

Baseline histopathology	
Invasive cancer	140 (17%)
Noninvasive histopathology	
Dysplastic lesion	542 (65%)
Nondysplastic lesion	134 (16%)
Other	15 (18%)
Submucosal fibrosis	
No	467 (56%)
Yes	362 (44%)
Mild	110 (13%)
Moderate	92 (11%)
Severe	160 (19%)
Total procedure time, median (IQR), min	76 (56-120)
En bloc resection	790 (94%)
R0 resection rate	713 (85%)

ESD, Endoscopic submucosal dissection; IQR, interquartile range; ASA, American Society of Anesthesiologists.

TABLE 2. Comparison of patients who were admitted versus those with SDD after ESD

Characteristic	Admitted (n = 243)	SDD (n = 588)	P value
Age, median (IQR), y	68 (59-73)	66 (57-74)	.185
Male gender	138 (57%)	339 (58%)	.823
ASA class			.005
I	12 (5%)	70 (12%)	
II	103 (42%)	271 (46%)	
III	112 (46%)	243 (41%)	
IV	16 (7%)	4 (1%)	
Upper GI location			.009
Esophagus	83 (35%)	157 (27%)	
Stomach	41 (17%)	85 (14%)	
Colorectum	119 (49%)	346 (59%)	
Lesion size, median (IQR), mm	41 (30-60)	45 (33-59)	<.0001
Depressed morphology			.0004
Yes	48 (20%)	63 (11%)	
No	195 (80%)	525 (89%)	
Baseline histopathology			<.0001
Invasive cancer	63 (26%)	77 (13%)	
Noninvasive			
Dysplastic	163 (67%)	458 (78%)	
Nondysplastic	14 (6%)	41 (7%)	
Other	3 (1%)	12 (2%)	
Submucosal fibrosis			.0001
No	158 (65%)	309 (53%)	
Yes	85 (35%)	279 (47%)	
Mild	14 (6%)	96 (16%)	
Moderate	16 (7%)	78 (13%)	
Severe	55 (23%)	105 (18%)	
Adverse events			<.0001
Bleeding	3 (1%)	12 (2%)	
Perforation	16 (7%)	4 (1%)	
Infection	0 (0%)	0 (0%)	
Stricture	13 (5%)	14 (2%)	
Sedation-related	0 (0%)	0 (0%)	
Total procedure time, median (IQR), min	136 (91-198)	69 (51-89)	<.0001
Endoscopist volume			<.0001
<50 ESD cases	80 (33%)	96 (16%)	
≥50 ESD cases	163 (67%)	492 (84%)	

**TABLE 3. Univariate and multivariate analyses of factors associated with admission after ESD**

Baseline characteristic	Univariate OR (95% CI)	Univariate <i>P</i> value	Multivariate OR (95% CI) for all <i>P</i> < .05	Multivariate <i>P</i> value
Age >67 y	1.3 (1.0-1.8)	.057	—	—
Male gender	1.0 (.7-1.3)	.823	—	—
ASA class III/IV vs I/II	1.5 (1.1-2.1)	.005	1.3 (.9-2.0)	.178
Depressed vs nondepressed morphology	2.1 (1.4-3.1)	.0004	1.3 (.8-2.3)	.279
Upper GI tract vs colorectal lesion location	1.5 (1.1-2.0)	.009	1.7 (1.1-2.6)	.011
Endoscopist ESD volume <50 cases	2.5 (1.8-3.6)	<.0001	2.1 (1.3-3.3)	.001
Submucosal fibrosis (yes vs no)	.6 (.4-.8)	.0001	.7 (.4-1.0)	.073
Lesion size >44 mm	.3 (.2-.4)	<.0001	.5 (.3-.8)	.001
Baseline histopathology of invasive cancer (vs no)	2.3 (1.6-3.4)	<.0001	1.9 (1.2-3.1)	.010
Adverse event (yes vs no)	3.6 (2.2-5.9)	<.0001	2.7 (1.5-4.8)	.001
Total procedure time >75 min	9.4 (6.4-14.0)	<.0001	13.5 (8.5-21.3)	<.0001

ESD, Endoscopic submucosal dissection; OR, odds ratio; CI, confidence interval; ASA, American Society of Anesthesiologists; —, not applicable.

# Conclusion



La dissection sous-muqueuse en ambulatoire : possible et sécurisée



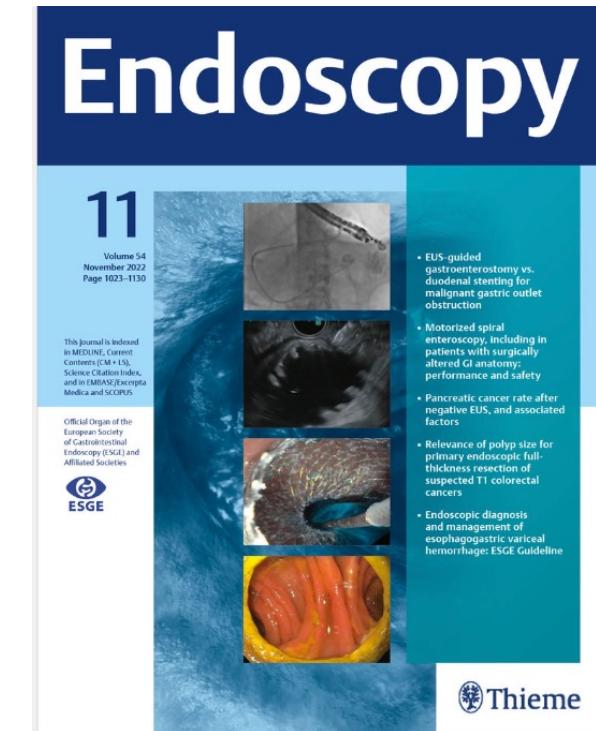
- Tube digestif haut
- Cancer invasif
- Procédures > 75 min
- Endoscopiste peu expérimenté

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# Endoscopic ultrasound-guided gastroenterostomy versus duodenal stenting for malignant gastric outlet obstruction: an international, multicenter, propensity score-matched comparison

## Authors

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Comparer l'efficacité clinique et le taux de dysfonction de la gastro-entéro-anastomose (GEA) par voie écho-endoscopique et de la prothèse duodénale dans le traitement des obstructions gastriques malignes



# Méthode

- Analyse rétrospective
- Multicentrique, internationale (Pays-Bas, Italie et Belgique)
- Entre janvier 2015 et mai 2021

Obstruction gastrique maligne et symptomatique

- + Confirmation radiologique ou endoscopique d'une sténose antrale ou duodénale
- + Première procédure thérapeutique

Antécédent de prothèse duodénale, EUS-GEA ou GEA chirurgicale  
Suivi <30 jours après la procédure

Succès clinique : GOO scoring system (GOOSS) > ou = 2

Dysfonction du stent : GOOSS < ou = à 1 après succès clinique initial

# Résultats

► **Table 1** Main and matched cohort: baseline characteristics.

	Main cohort		P value	Matched cohort		P value
	EUS-GE (n=107)	Duodenal stenting (n=107)		EUS-GE (n=88)	Duodenal stenting (n=88)	
Age, years						
▪ Mean (SD)	66 (11.8)	67 (11.2)	0.54	66 (12.1)	66 (10.4)	0.98
Female sex, n (%)	54 (50.5)	58 (54.2)	0.68	44 (50.0)	48 (54.5)	0.65
Follow-up duration, median (IQR), days	90.5 (44–177)	50 (27–126)	0.01	103 (43–184)	51 (30–126)	0.01
Primary disease, n (%)						
▪ Pancreatic cancer	50 (46.7)	70 (65.4)	0.009	50 (56.8)	56 (63.6)	0.44
▪ Biliary tract cancer	15 (14.0)	7 (6.5)	0.11	11 (12.5)	5 (5.7)	0.19
▪ Gastric cancer	12 (11.2)	8 (7.5)	0.48	8 (9.1)	7 (7.9)	>0.99
▪ Duodenal cancer	10 (9.3)	10 (9.3)	>0.99	8 (9.1)	10 (11.4)	0.80
▪ Other	20 (18.7)	12 (11.2)	0.18	11 (12.5)	10 (11.4)	>0.99
Disease stage, n (%)	n = 104	n = 106				
▪ Local invasion	34 (32.7)	45 (42.5)	0.16	32 (36.4)	35 (39.8)	0.76
▪ Liver metastases	20 (19.2)	17 (16.0)	0.72	20 (22.7)	15 (17.0)	0.45
▪ Peritoneal metastases	14 (13.5)	8 (7.5)	0.26	9 (10.2)	8 (9.1)	>0.99
▪ Diffuse metastatic	36 (34.6)	36 (34.0)	>0.99	27 (30.7)	30 (34.1)	0.78
Disease manifestations, n (%)						
▪ Ascites	31 (29.0)	24 (22.4)	0.28	23 (26.1)	22 (25.0)	0.86
▪ Peritoneal carcinomatosis	44 (41.1)	27 (25.2)	0.02	28 (31.8)	25 (28.4)	0.74

EUS-GE, endoscopic ultrasound-guided gastroenterostomy; IQR, interquartile range.

# Résultats

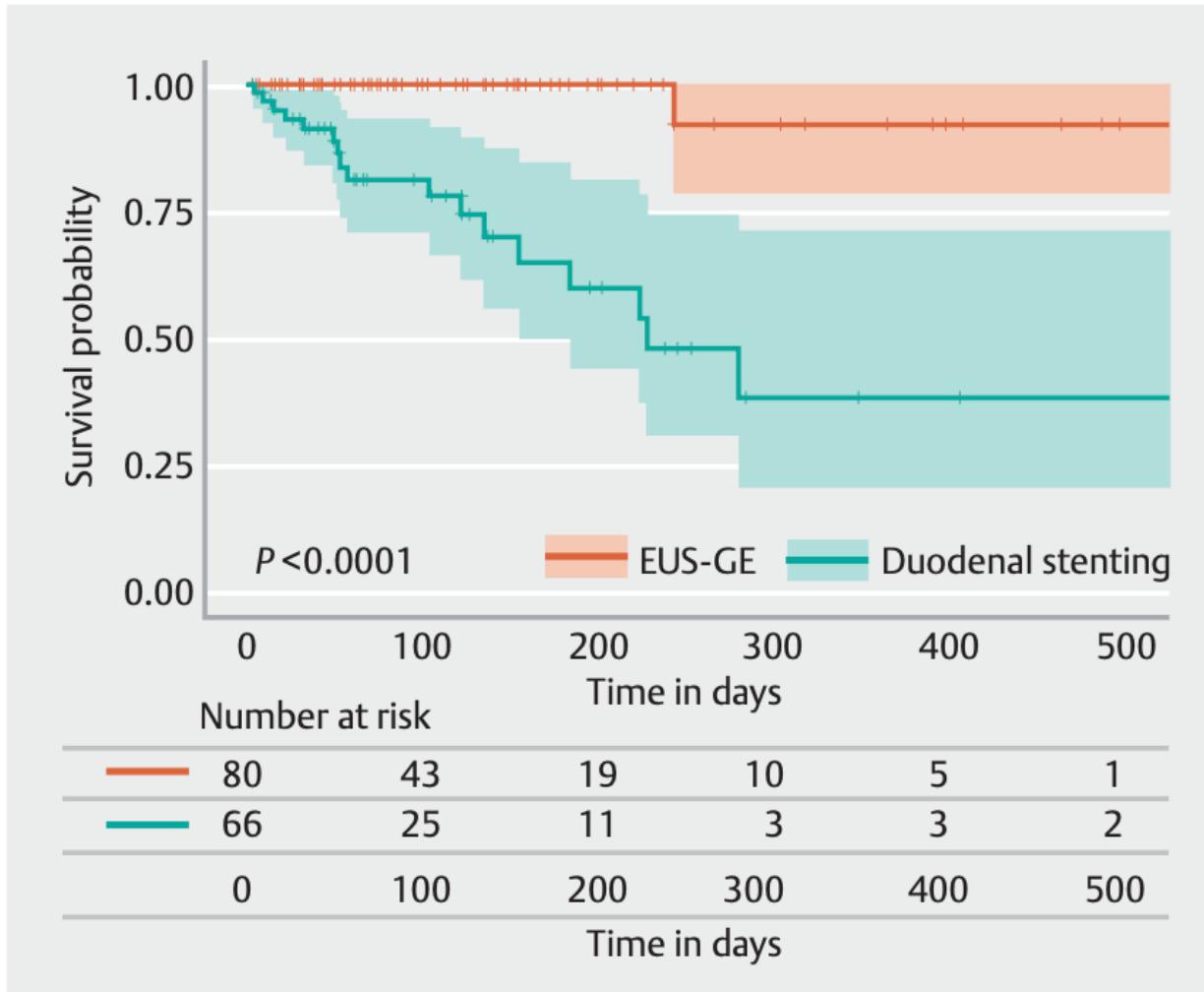
► **Table 2** Matched cohort: outcome comparisons.

	EUS-GE (n=88)	Duodenal stenting (n=88)	OR (95 %CI)
<b>Efficacy</b>			
Primary outcomes			
▪ Technical success, n (%) [95 %CI]	83 (94) [89–99]	86 (98) [95–100]	0.39 (0.07–2.04)
▪ Clinical success, n (%) [95 %CI]	80 (91) [85–97]	66 (75) [66–84]	3.33 (1.39–8.00)
▪ Per-protocol clinical success, n (%) [95 %CI]	80 (96) [92–100]	66 (77) [68–86]	8.06 (2.30–28.57)
▪ Time to clinical success, median (IQR), days	1 (1–2)	2 (2–3)	
▪ Time to oral intake, median (IQR), days	1 (0–1)	1 (0–1)	
▪ Recurrence of obstructive symptoms, n (%) [95 %CI]*	1 (1) [0–4]	17 (26) [15–37]	0.04 (0.01–0.28)
▪ Time to recurrent obstructive symptoms, median (IQR), days	243 (N/A)	57 (27–169.5)	
Secondary outcomes			
▪ Length of hospital stay, median (IQR), days	4 (2–10.8)	4 (1–9.5)	
▪ Survival, median (IQR), days	85 (43–157)	57 (18.5–130.5)	
<b>Safety</b>			
Overall adverse events, n (%) [95 %CI]	9 (10.2) [3.8–16.7]	18 (20.5) [11.9–29.0]	0.44 (0.19–1.05)
ASGE AE severity grading system, n (%) [95 %CI]			
▪ Mild	2 (2.3) [0–5.5]	6 (6.8) [1.5–12.2]	0.32 (0.06–1.62)
▪ Moderate	3 (3.4) [0–7.3]	9 (10.2) [3.8–16.7]	0.31 (0.08–1.19)
▪ Severe	4 (4.5) [0.1–9.0]	2 (2.3) [0–5.5]	2.05 (0.37–11.49)
▪ Fatal	0 (0)	1 (1.1) [0–3.4]	0.99 (0.97–1.01)

EUS-GE, endoscopic ultrasound-guided gastroenterostomy; OR, odds ratio; IQR, interquartile range; N/A, not applicable; ASGE, American Society for Gastrointestinal Endoscopy; AE, adverse event.

\* Per-protocol cohorts.

# Résultats



► **Fig. 3** Kaplan-Meier curve with time to event (stent dysfunction) analysis (log-rank test  $P < 0.001$ ). EUS-GE, endoscopic ultrasound-guided gastroenterostomy.

# Conclusion



Meilleur succès clinique et taux de dysfonctionnement moindre pour l'EUS-GE



La gastro-entéro-anastomose doit-elle être préférée dorénavant ?

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## Underwater versus conventional EMR of large nonpedunculated colorectal lesions: a multicenter randomized controlled trial



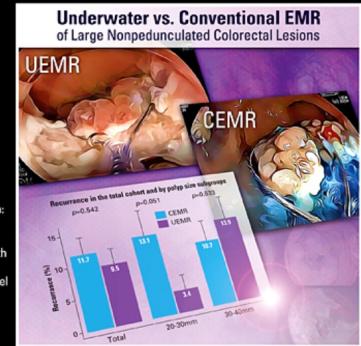
### Featured Articles

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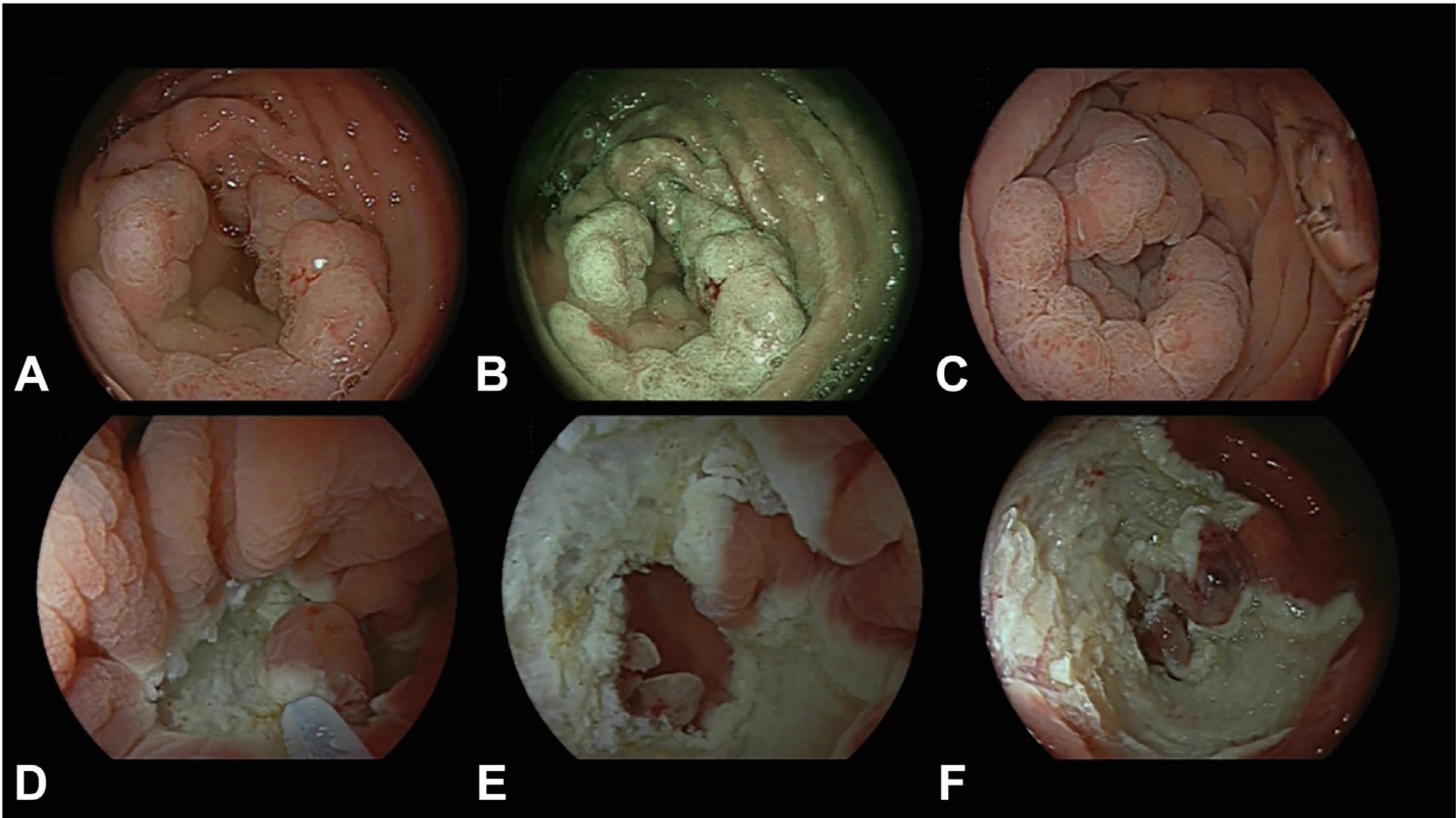


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Madrid, Ciudad Real, Barcelona, Basque Country, Logroño; Burgos, Palma de Mallorca, Sevilla, Granada, Puertollano, A Coruña, Salamanca, Pamplona, Spain



Comparer l'efficacité et la sécurité d'une résection endoscopique underwater à une mucosectomie conventionnelle pour les gros polypes non pédiculés colorectaux



## Méthode

- Essai clinique randomisé contrôlé multicentrique
- Février 2018 à Février 2020
- 11 Hôpitaux en Espagne

Lésions de plus de 2 cm, jamais traitées

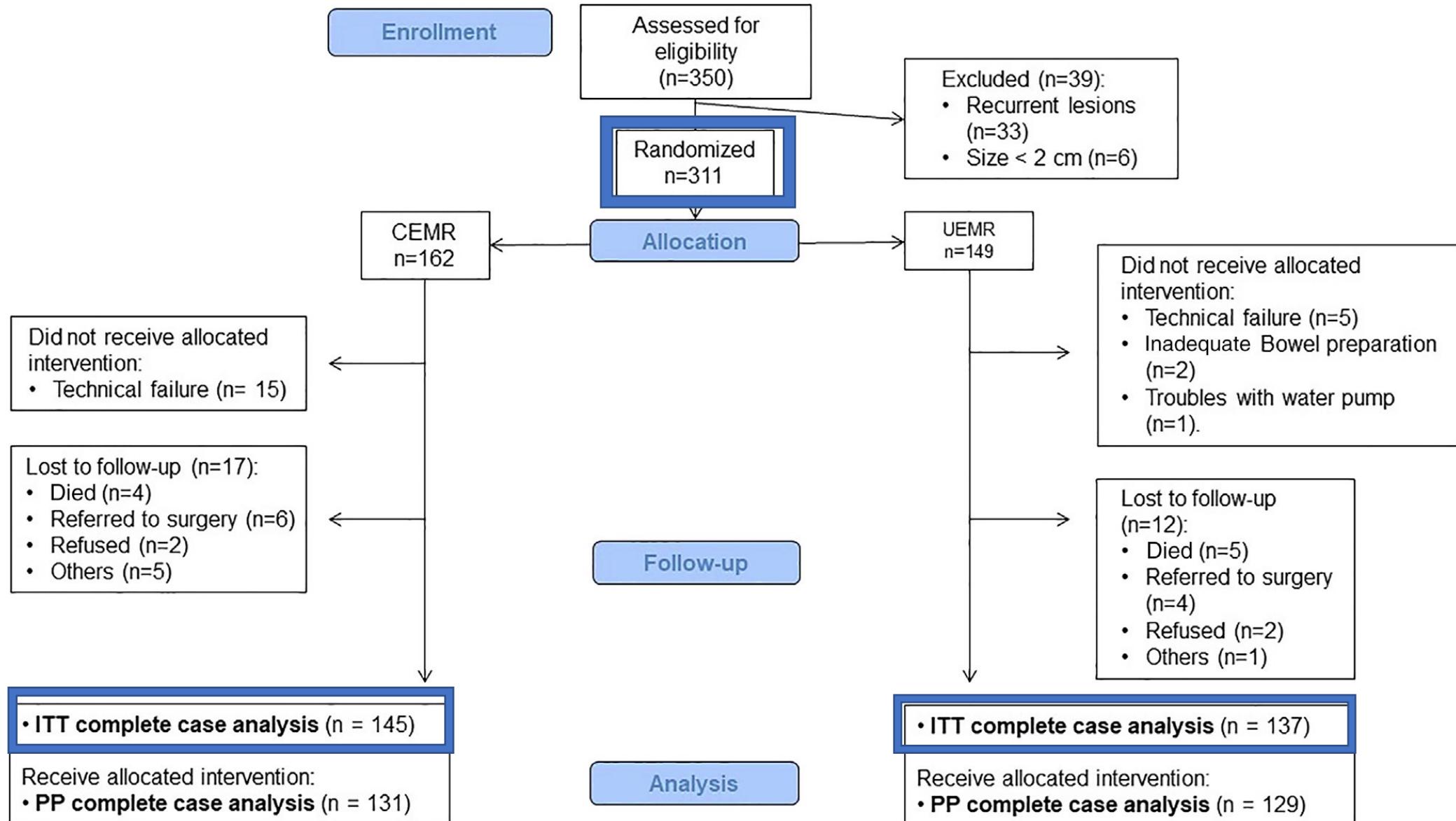
Endoscopistes experts

2 coloscopies de contrôle (6 mois et 18 mois)

Critère de jugement principal : Taux de récidive lors d'un contrôle endoscopique

Critères de jugement secondaire : Aspects techniques, taux de résection en bloc, taux de R0 et les complications





**TABLE 1. Patient and polyp characteristics**

Polyp characteristics					
Total No.			162 (52.1)	149 (47.9)	
Size, mm	311	Median (IQR)	30.0 (25.0-38.8)	30.0 (25.0-40.0)	.695
Size category	311	<30 mm	67 (41.4)	61 (40.9)	1.000
		≥30 mm	95 (58.6)	88 (59.1)	
Proximal location (excluding TC)	311	Proximal	75 (46.3)	71 (47.7)	.900
		Distal	87 (53.7)	78 (52.3)	
Proximal location (including TC)	311	Proximal	48 (29.6)	48 (32.2)	.711
		Distal	114 (70.4)	101 (67.8)	
Difficult locations	43	Pectineal line	4 (16.7)	2 (10.5)	.117
		Ileocecal valve	17 (70.8)	10 (52.6)	
		Appendix	1 (4.2)	6 (31.6)	
		Peridiverticular area	2 (8.3)	1 (5.3)	
Paris classification	299	0-Is	66 (40.7)	74 (49.7)	.240
		0-IIa	80 (49.4)	65 (43.6)	
		0-IIc	16 (9.9)	10 (6.7)	
Histology	310	Adenoma-LGD	96 (59.3)	75 (50.7)	.305†
		HGD	43 (26.5)	38 (25.7)	
		Invasive adenoma	8 (4.9)	9 (6.1)	
		Serrated	12 (7.4)	20 (13.5)	
		HGD-mucosal serrated	3 (1.9)	5 (3.4)	
		Invasive serrated	0 (0.0)	1 (0.7)	

30 mm

47% colon proximal

47% Paris 0-IIA

86% d'adénome

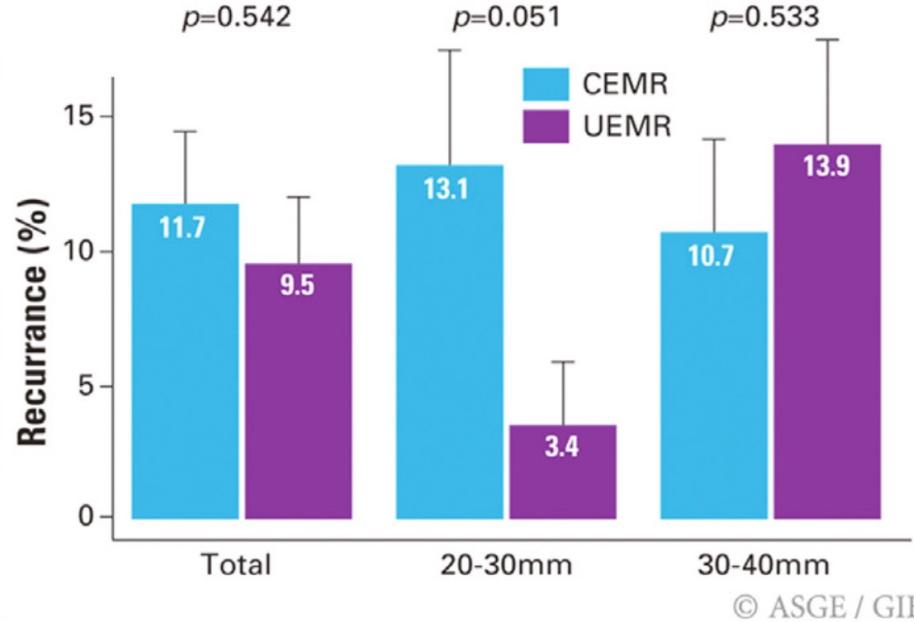
**TABLE 2. Primary and secondary outcomes regarding the efficacy of the technique**

Outcome	Analysis	Resection	no.	Missing	No. of events	% Events	OR (95% CI)	ARD (95% CI)	P value
Primary outcome									
Recurrence	ITT	CEMR	145	0	17	11.7			
		UEMR	137	0	13	9.5	.79 (.37 to 1.69)	-2.2 (-9.4 to 4.9)	.542
	PP	CEMR	131	0	17	13.0			
		UEMR	129	0	9	7.0	.50 (.22 to 1.17)	-6 (-13.2 to 1.2)	.104
Secondary outcomes									
En bloc	ITT	CEMR	162	0	46	28.4			
		UEMR	149	0	47	31.5	1.16 (.71 to 1.89)	3.1 (-7 to 13.3)	.545
	PP	CEMR	147	0	42	28.6			
		UEMR	141	0	47	33.3	1.25 (.76 to 2.06)	4.8 (-5.9 to 15.4)	.382
R0	ITT	CEMR	162	0	39	24.1			
		UEMR	149	0	41	27.5	1.20 (.72 to 1.99)	3.4 (-6.3 to 13.2)	.488
	PP	CEMR	147	0	36	24.5			
		UEMR	141	0	41	29.1	1.26 (.75 to 2.13)	4.6 (-5.6 to 14.8)	.379
Successful EMR	ITT	CEMR	155	7	122	78.7			
		UEMR	140	9	119	85.0	1.53 (.84 to 2.80)	6.3 (-2.5 to 15)	.159
	PP	CEMR	141	6	109	77.3			
		UEMR	132	9	115	87.1	1.99 (1.04 to 3.78)	9.8 (.8 to 18.8)	.032*

OR, Odds ratio; CI, confidence interval; ARD, absolute risk difference; ITT, intention-to-treat; CEMR, conventional mucosal endoscopic resection; UEMR, "underwater" EMR; PP, per-protocol.

\*Significant ( $P < .05$ ).

## Recurrence in the total cohort and by polyp size



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**TABLE 3. Primary and secondary outcomes regarding the efficacy of the technique adjusted for polyp size**

Secondary outcomes								
En bloc	ITT	CEMR	67	0	27	40.3		
		UEMR	61	0	36	59.0	2.13 (1.05 to 4.32)	18.7 (1.7 to 35.8)
	PP	CEMR	60	0	24	40.0		
		UEMR	61	0	36	59.0	2.16 (1.05 to 4.46)	19 (1.5 to 36.5)
R0	ITT	CEMR	67	0	21	31.3		
		UEMR	61	0	31	50.8	2.26 (1.10 to 4.65)	19.5 (2.7 to 36.2)
	PP	CEMR	60	0	19	31.7		
		UEMR	61	0	31	50.8	2.23 (1.06 to 4.67)	19.2 (2 to 36.4)

**TABLE 4. Adverse events**

Variable	Total no.	Levels	CEMR	UEMR	P value
Bleeding	311 (100.0)	No	124 (76.5)	118 (79.2)	.490
		Delayed bleeding	13 (8.0)	7 (4.7)	
		Immediate bleeding	25 (15.4)	24 (16.1)	
Blood transfusion	292 (93.9)	No	155 (98.7)	133 (98.5)	1.000*
		Yes	2 (1.3)	2 (1.5)	
Perforation	311 (100.0)	No	157 (96.9)	145 (97.3)	1.000*
		Yes, with endoscopic resolution	5 (3.1)	4 (2.7)	
PPS	305 (98.1)	No	157 (98.1)	143 (98.6)	1.000*
		Yes	3 (1.9)	2 (1.4)	
Fever	311 (100.0)	No	160 (98.8)	146 (98.0)	.673*
		Yes	2 (1.2)	3 (2.0)	
Abdominal pain	302 (97.1)	No	157 (98.1)	140 (98.6)	1.000*
		Yes	3 (1.9)	2 (1.4)	
Admission	311 (100.0)	No	147 (90.7)	138 (92.6)	.695
		Yes	15 (9.3)	11 (7.4)	
Days	26 (100.0)	Median (IQR)	3.0 (2.5 to 4.5)	3.0 (2.0 to 5.5)	.831
Death related to procedure	311 (100.0)	No	0 (0.0)	0 (0.0)	
		Yes	0 (0.0)	0 (0.0)	

Values are no. (%).

CEMR, Conventional mucosal endoscopic resection; UEMR, "underwater" EMR; PPS, postpolypectomy syndrome; IQR, interquartile range.

\*Fisher exact test.

# Conclusion



La résection endoscopique underwater est une alternative valide à la mucosectomie conventionnelle



Elle pourrait être considérée en première option pour les lésions entre 20 et 30 mm

Merci