Société Algérienne d'Endoscopie Digestive

3rd Endoscopy Masterclass

POLYPECTOMIE / MUCOSECTOMIE

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Plan

- Introduction
- Objectifs
- Materiel
- Techniques et indications (Guidelines)
- Complications
- Courbe d’apprentissage

Introduction

- Endoscopie digestive: place de plus en plus importante dans la prise en charge de lésions colorectales.
- Pierre angulaire du programme de dépistage des CCR a travers le monde.
- Prévention+++
- Adénomes colorectaux: les lésions précancéreuses les plus fréquentes du tube digestif.
- Polypes colorectaux >20mm: retrouvés dans 0.8%-5.2% des coloscopies réalisées.
- Développement technique ++++ (ESD/STER/FTRD….)

World J Gastroenterol 2009 September 14; 15(34): 4273-4277

Objectifs

- Prévenir et minimiser le risque du CCR
- Diagnostiquer a temps des cancers superficiels : traitement endoscopique.
- Diminuer la morbimortalité lié a des CCR avancés.
- Diminution du cout des soins liés aux CCR.

TDA / Bonne caractérisation.
Bonnes indications.
Résection endoscopique de qualité (monobloc / curative).

Plateau technique

Colonne d’endoscopie

- High Définition
- Zoom
- Chromoendoscopie (NBI/BLI)

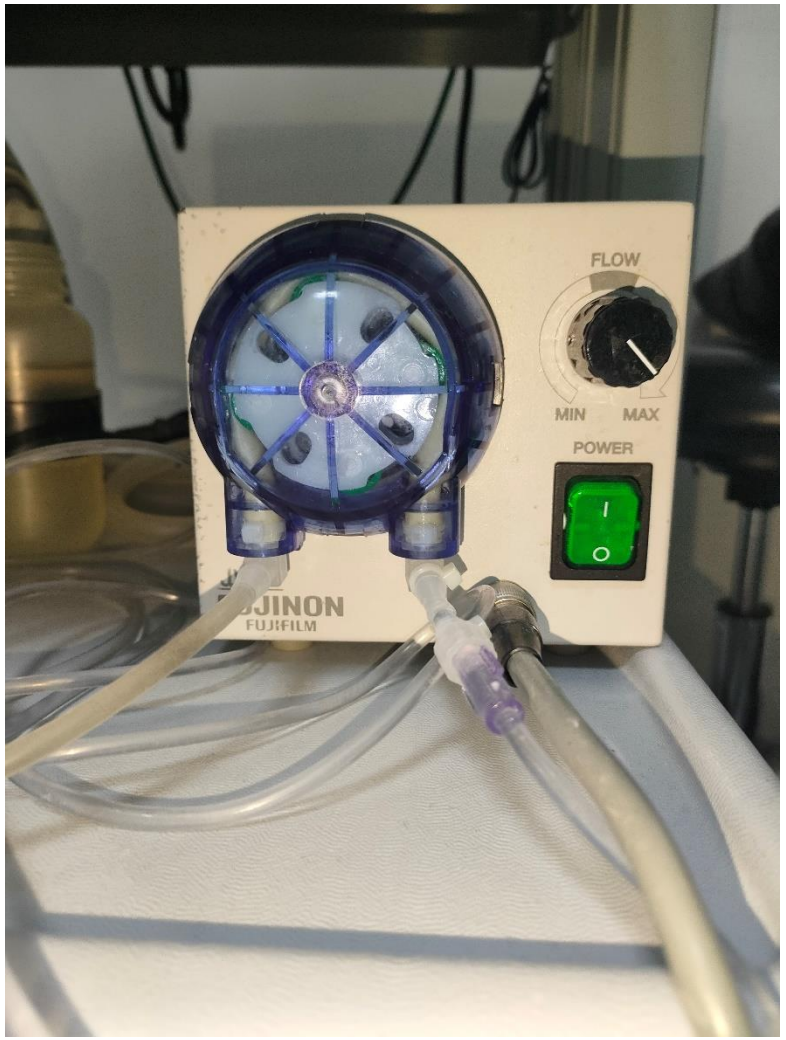
STANDARD

Unité électro-chirurgicale

- ERBE ICC 200.
- ERBE (VIO 200D/300D/ VIO3).
- BOWA.

Endocoupe +++

Pompe de Lavage



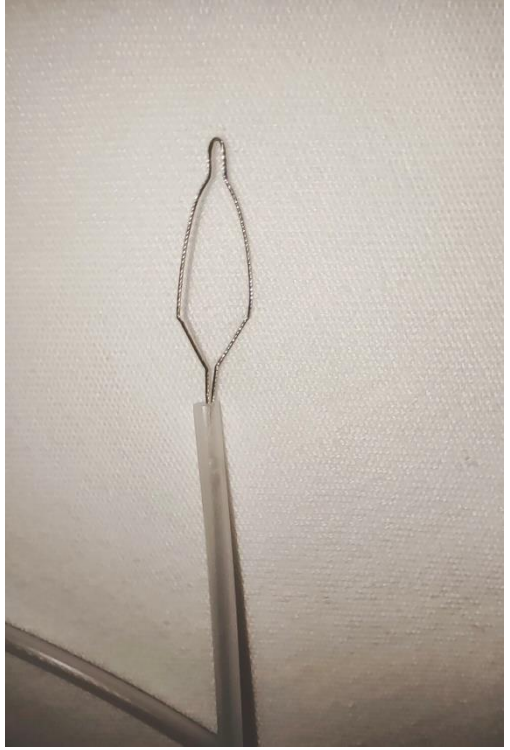
- Un standard.
- Underwater colonoscopy.
- Qualité de la coloscopie.
- Gestion des saignements +++

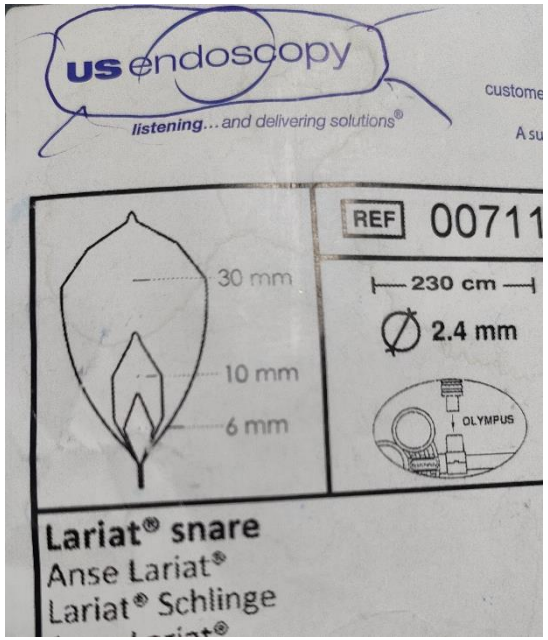
Anses froides / chaudes

- Anse froide: standard 10mm.
- Anses chaudes: différentes formes et tailles.
- Minimum suffisant :

 - Anse ovale 20mm.

 - Anse ovale ou hexagonale 30mm.

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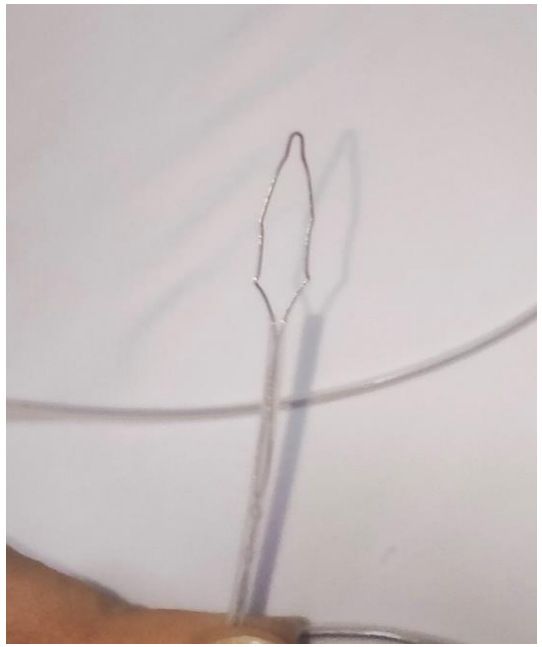
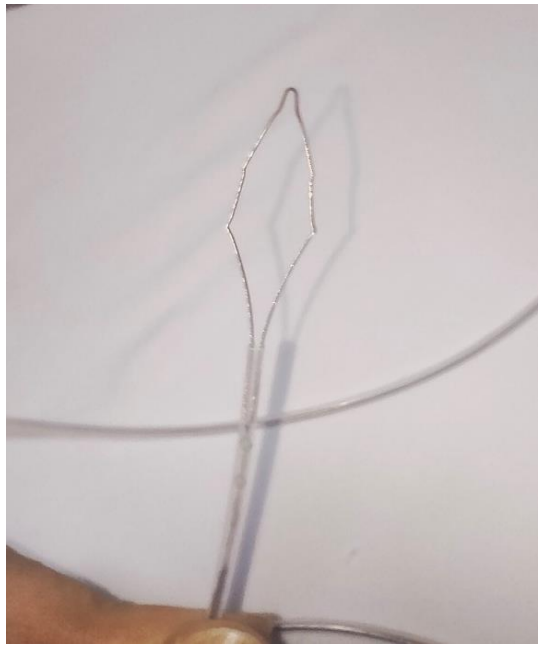
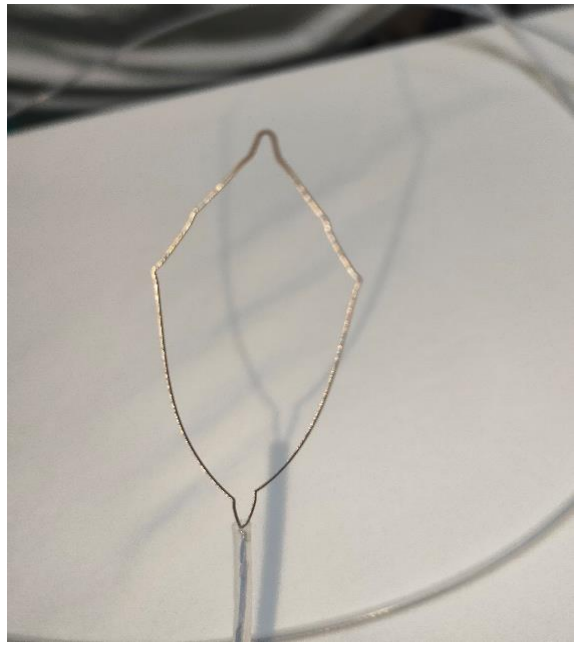






Aiguilles d’injection

- 20/21/23 Gauge : pas d’exigence particulière.

Moyens d’hémostase

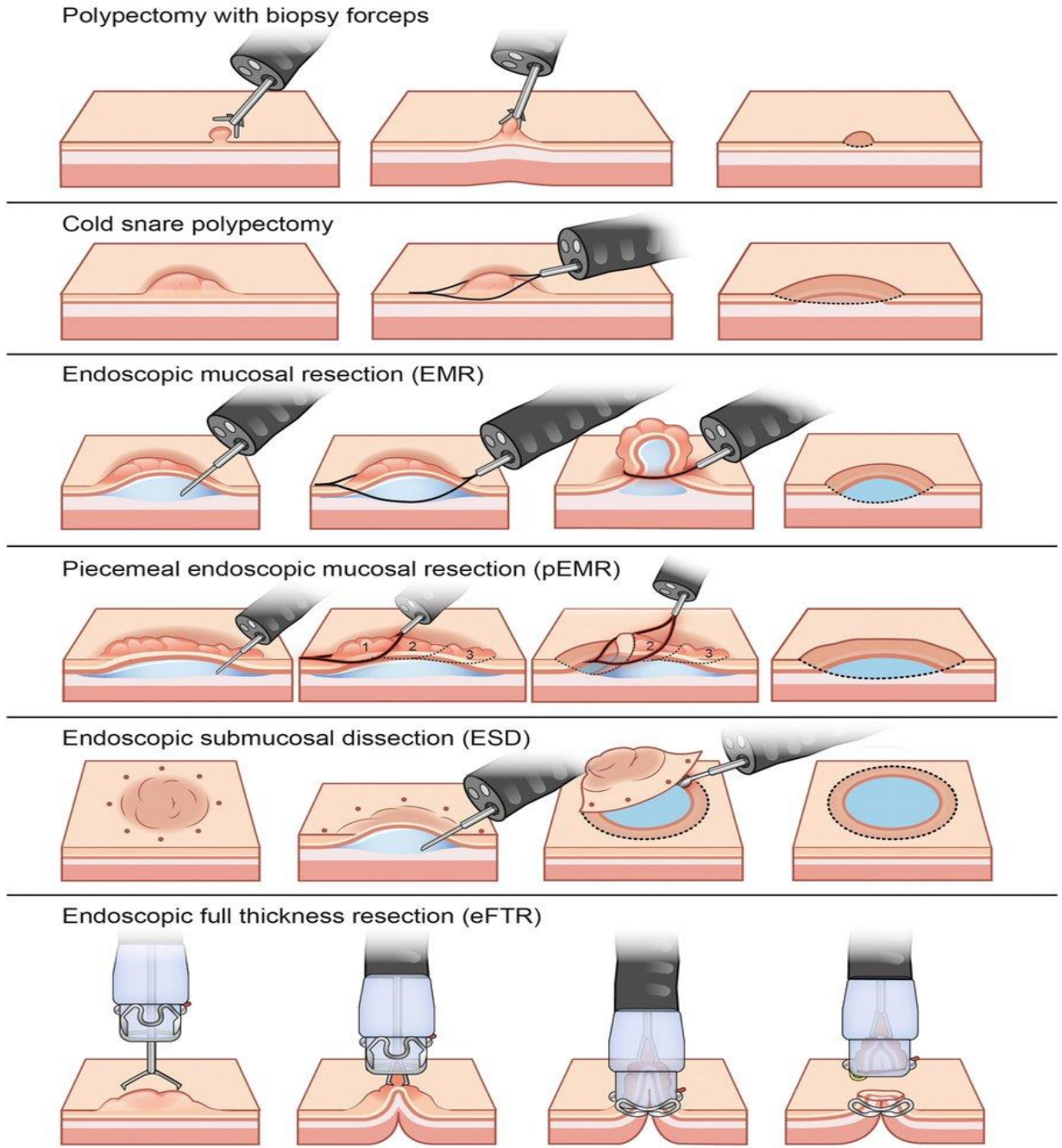
- Clips hémostatsiques :
- Rechargeables (90° /135°+++),
- Usage unique: plus efficaces, plus maniables, meilleure prise: Cout ↑↑↑
- Pince coagulante ++++

- Endoloop: de moins en moins utilisées.

- Argon +/-

Techniques

- Polypectomie
- Mucosectomie (EMR) / Under water EMR
- Resection hybride
- ESD (Endoscopic sub mucosal dissection)
- STER (Sub mucosal Tumor Endoscopic Resection)
- EFTR (FTRD) (Full-Thickness Endoscopic Resection)


Polypectomy with biopsy forceps
Cold snare polypectomy
Endoscopic mucosal resection (EMR)
Piecemeal endoscopic mucosal resection (pEMR)
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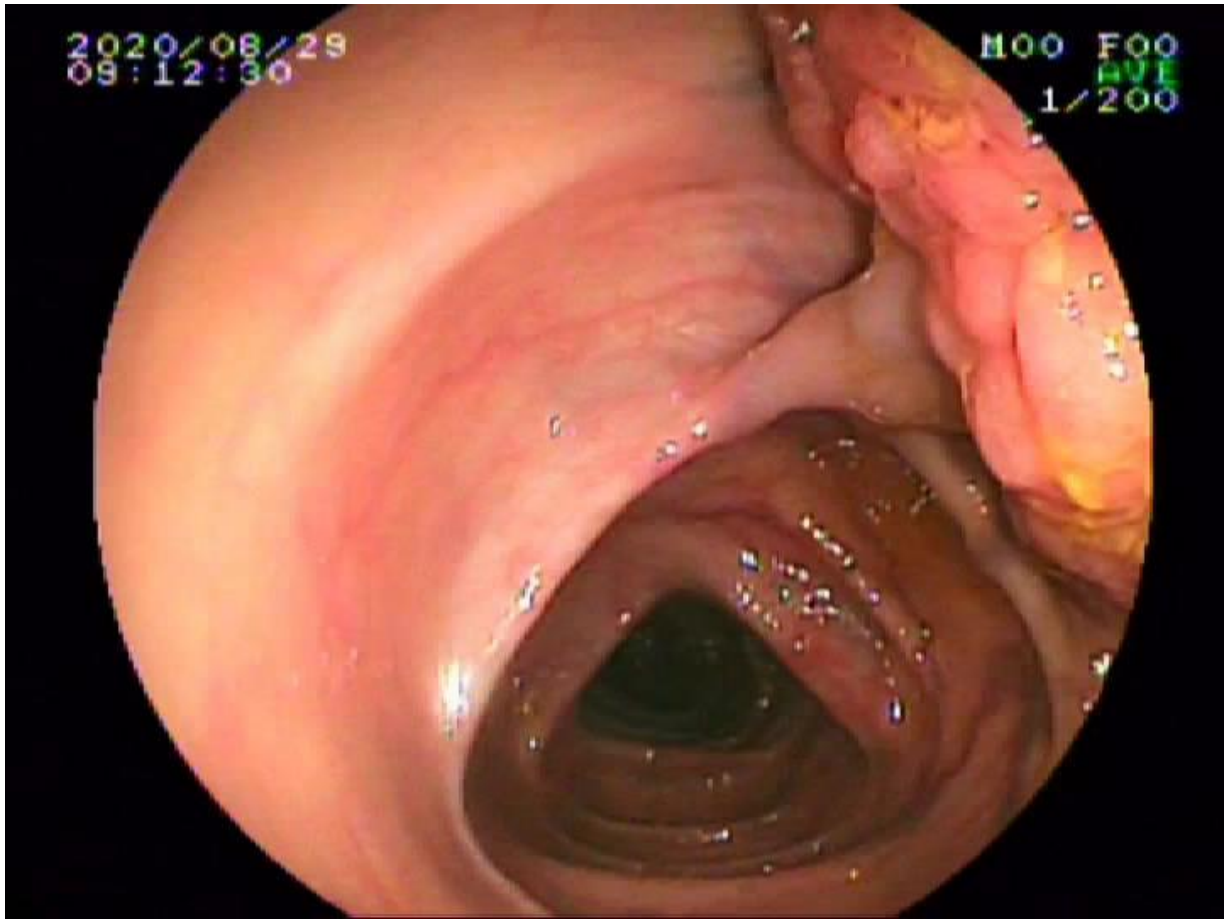
Endoscopic submucosal dissection (ESD)
Endoscopic full thickness resection (eFTR)

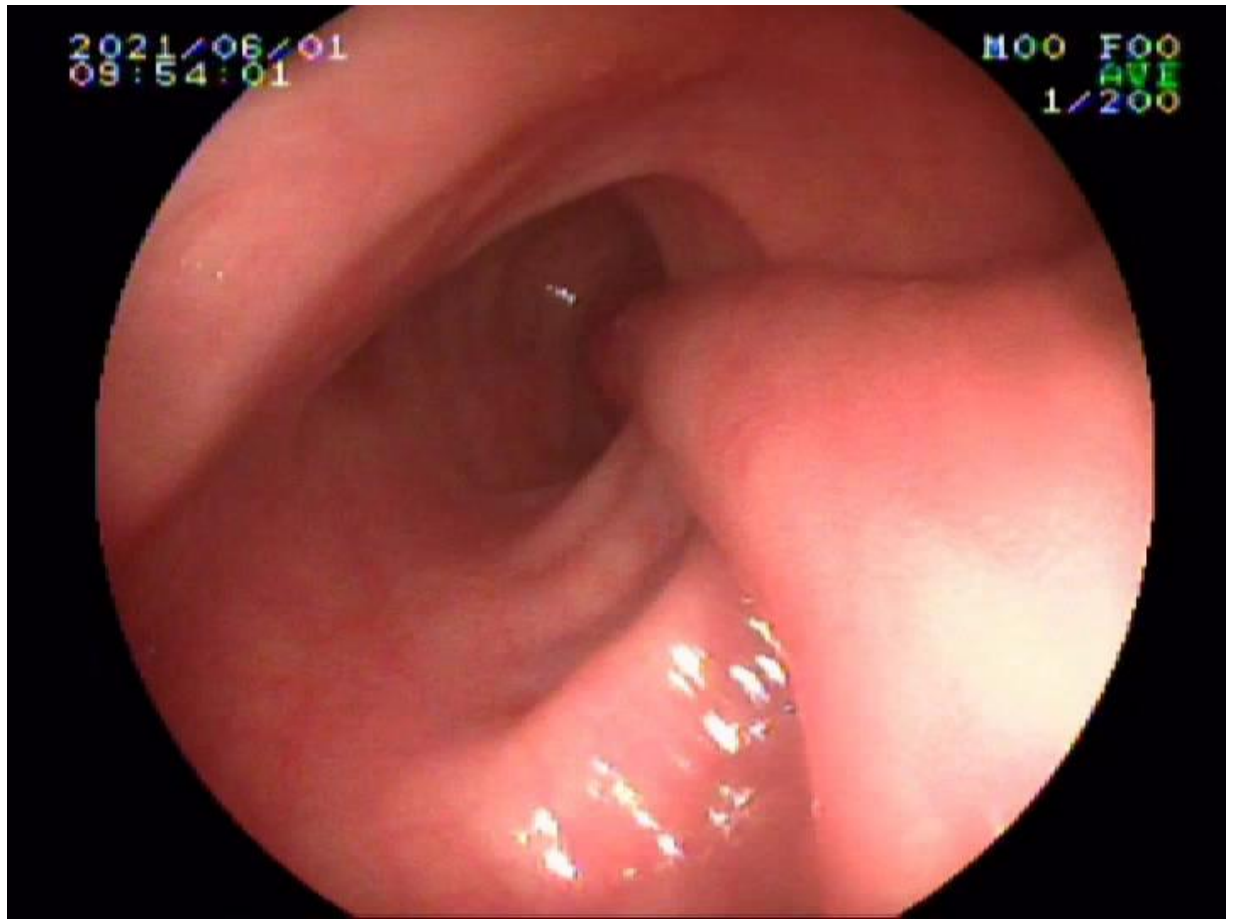
Polypes pédiculés

- Polype pédiculé = Anse chaude.
- Avec ou sans injection de serum physiologique du pédicule (pédicule fin et long++).
- ESGE:

Pédicule >10mm et/ou tète du polype >20mm : un moyen prévention mécanique (clips /endoloop) ou chimique (injection d'adrenaline) doit être utilisé avant la résection.

Polypectomie

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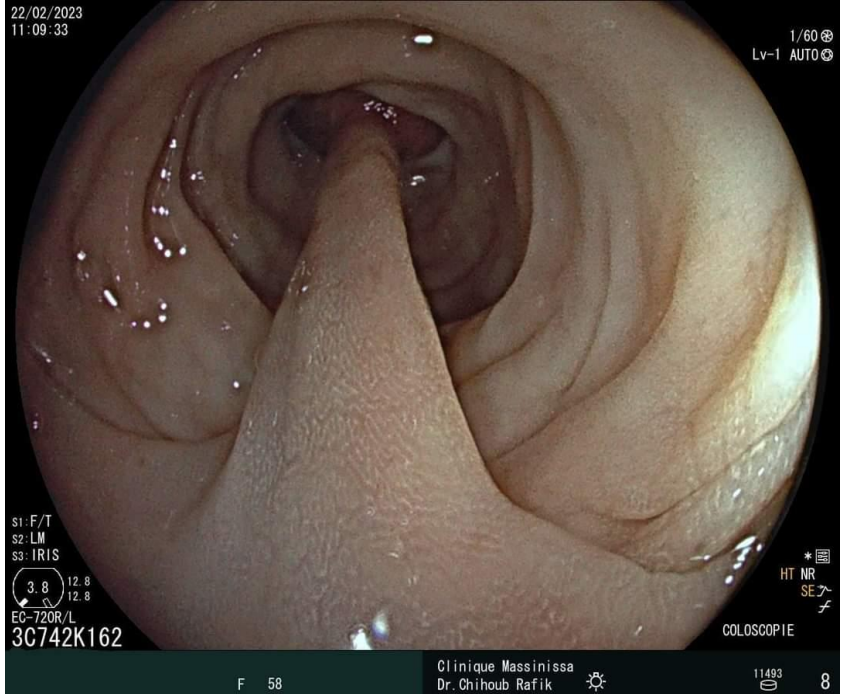
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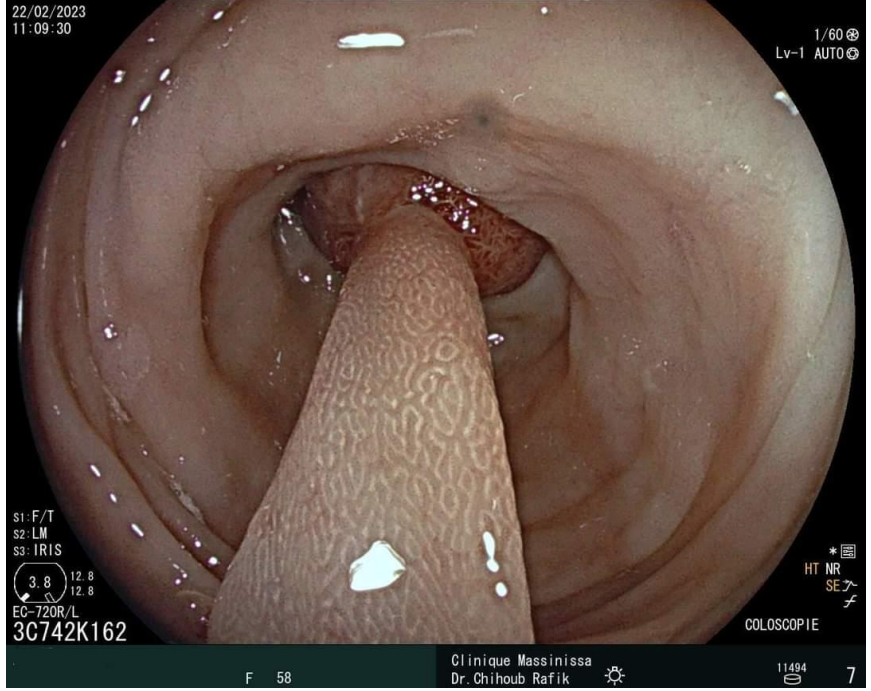
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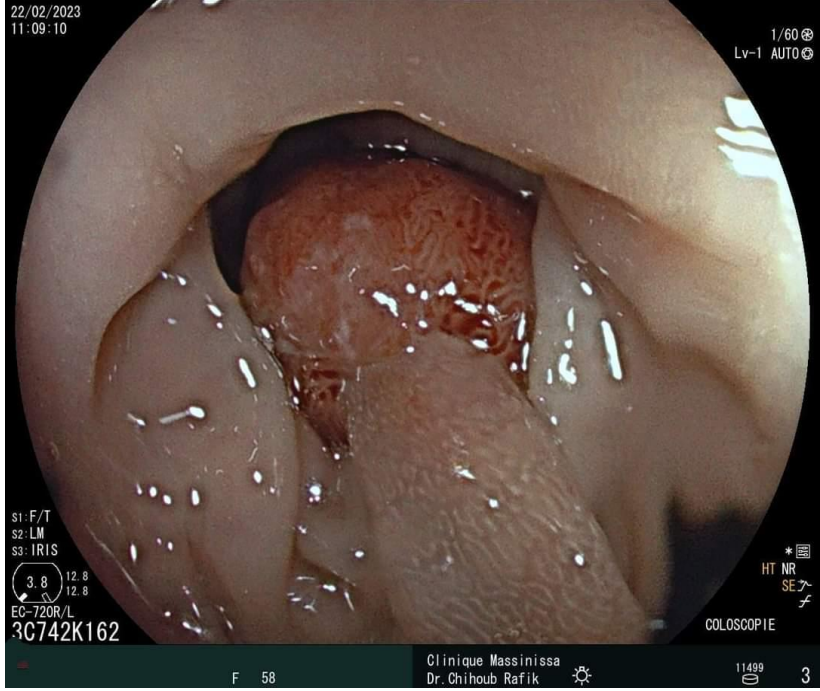
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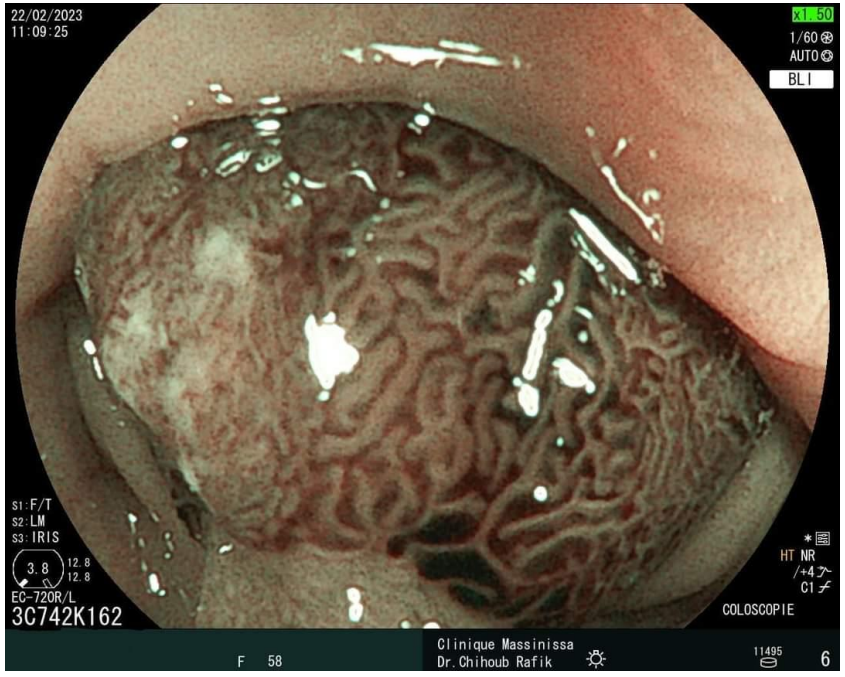
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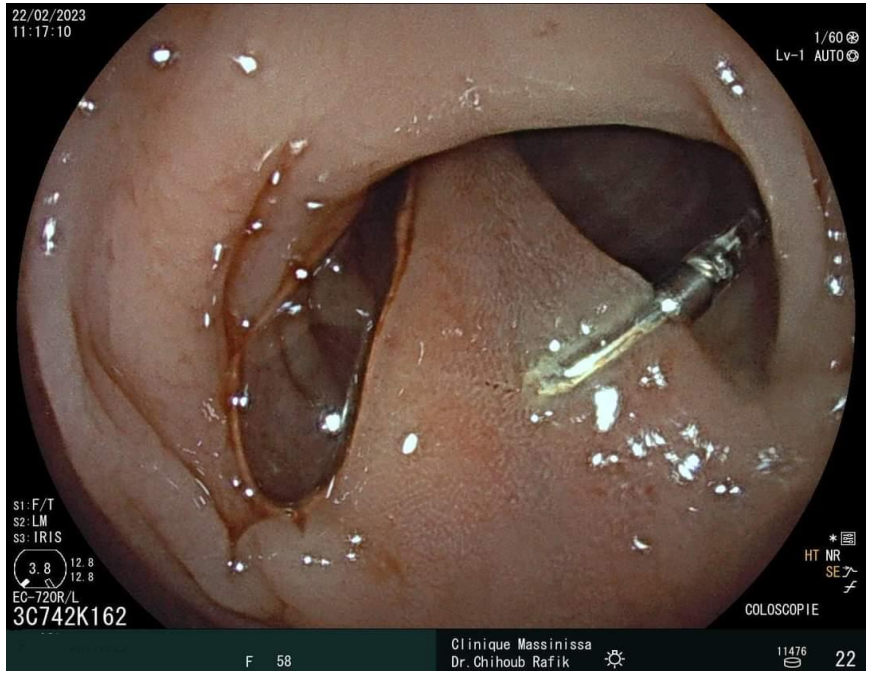
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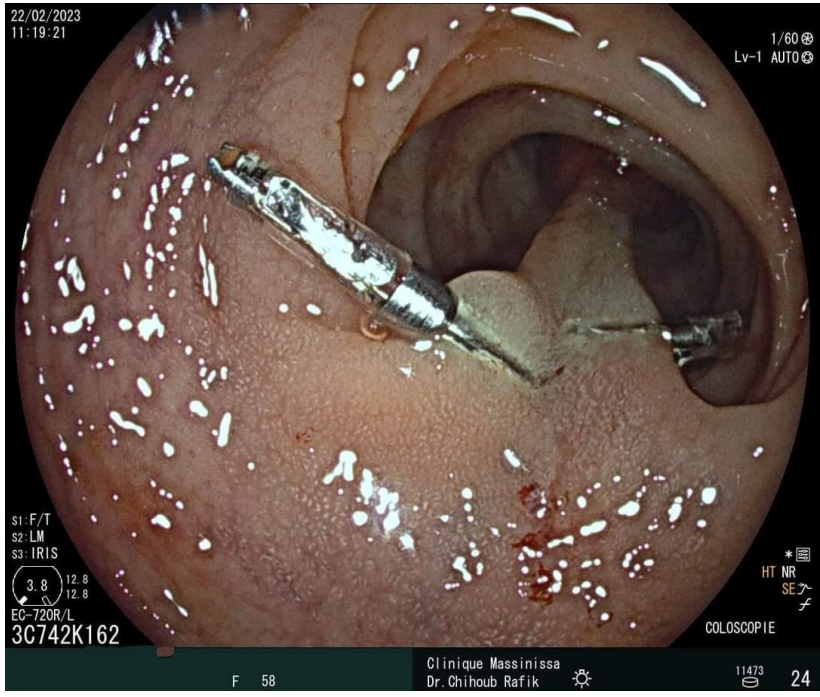
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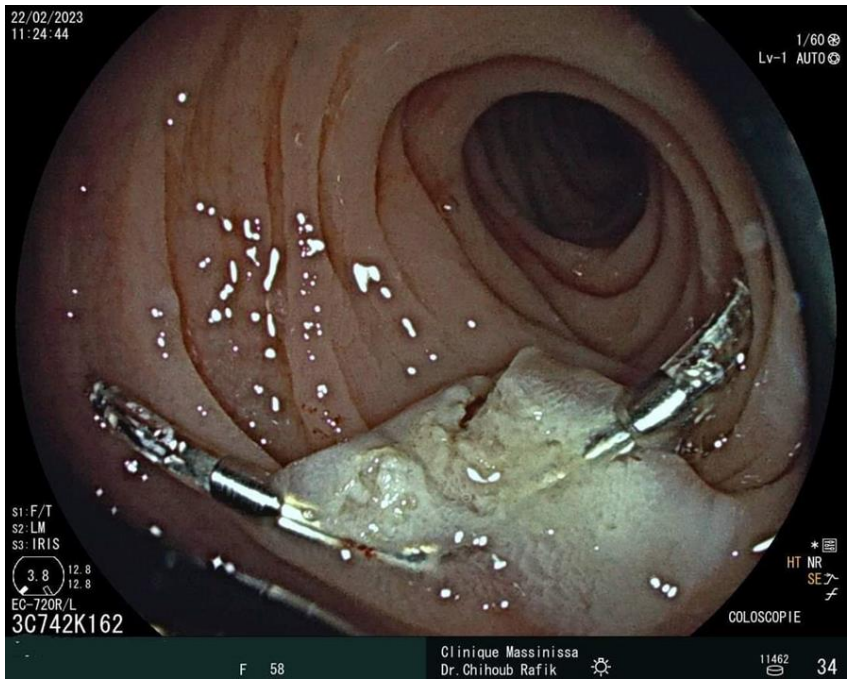
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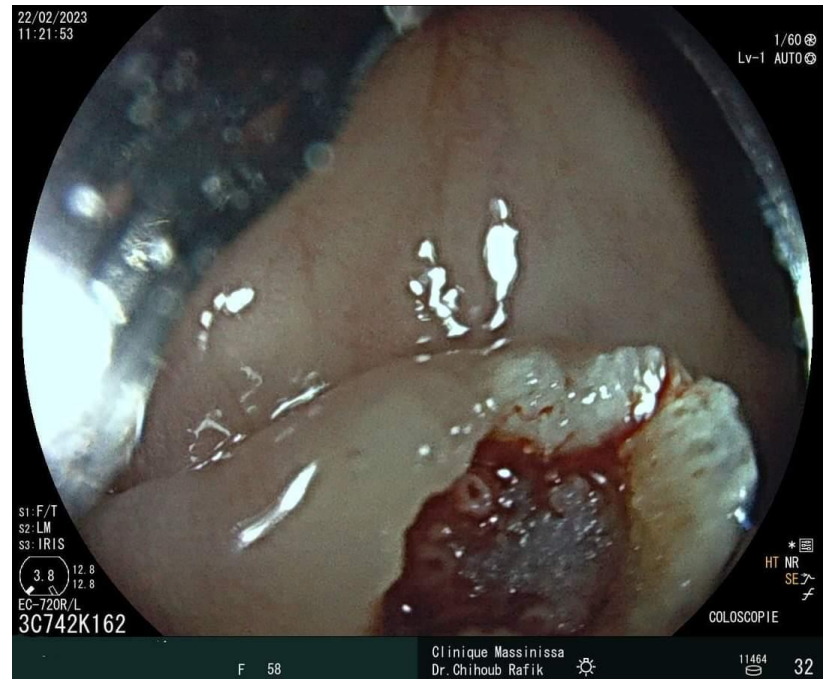
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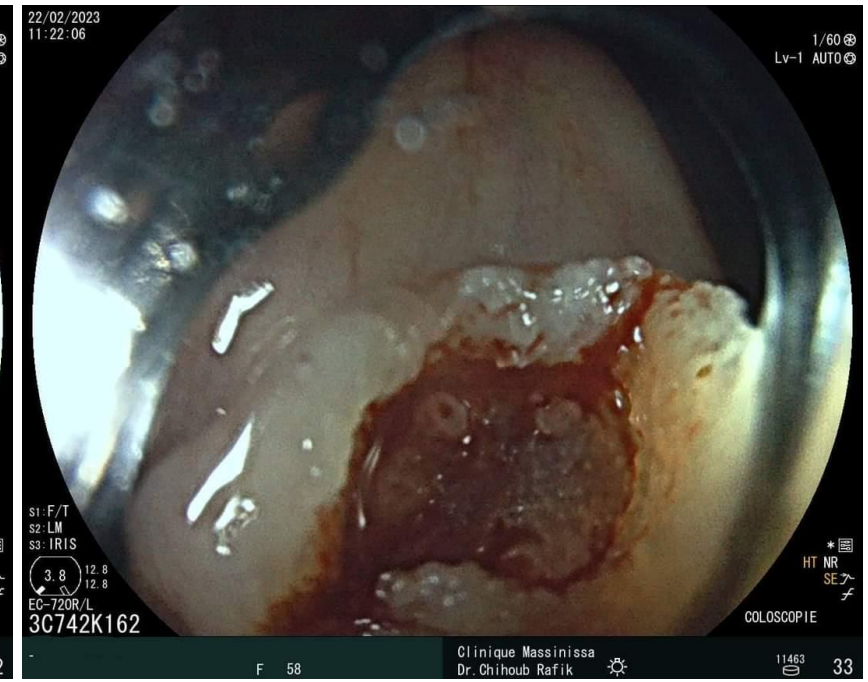
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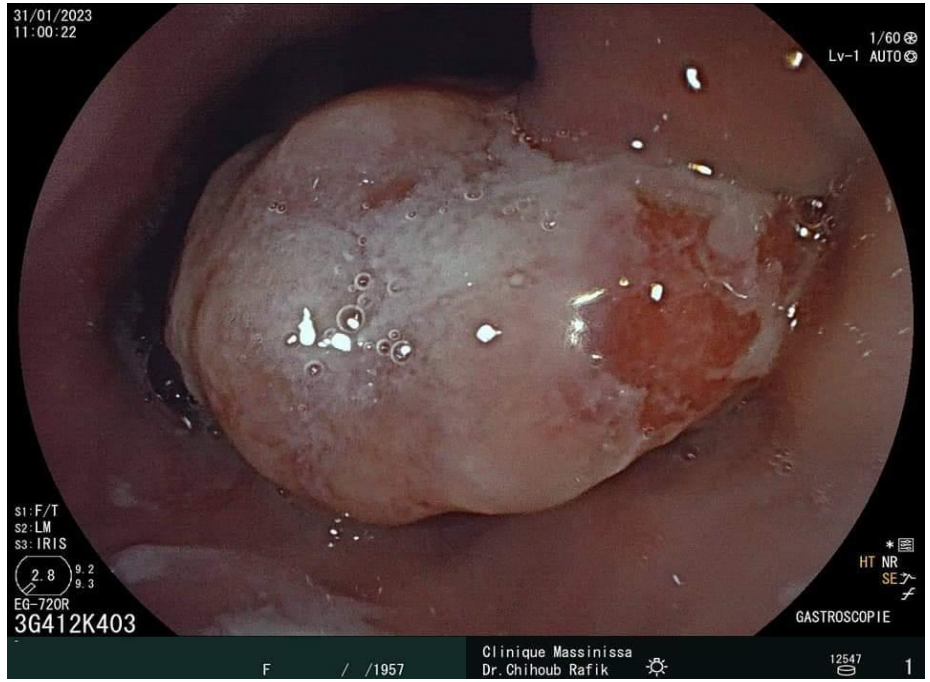
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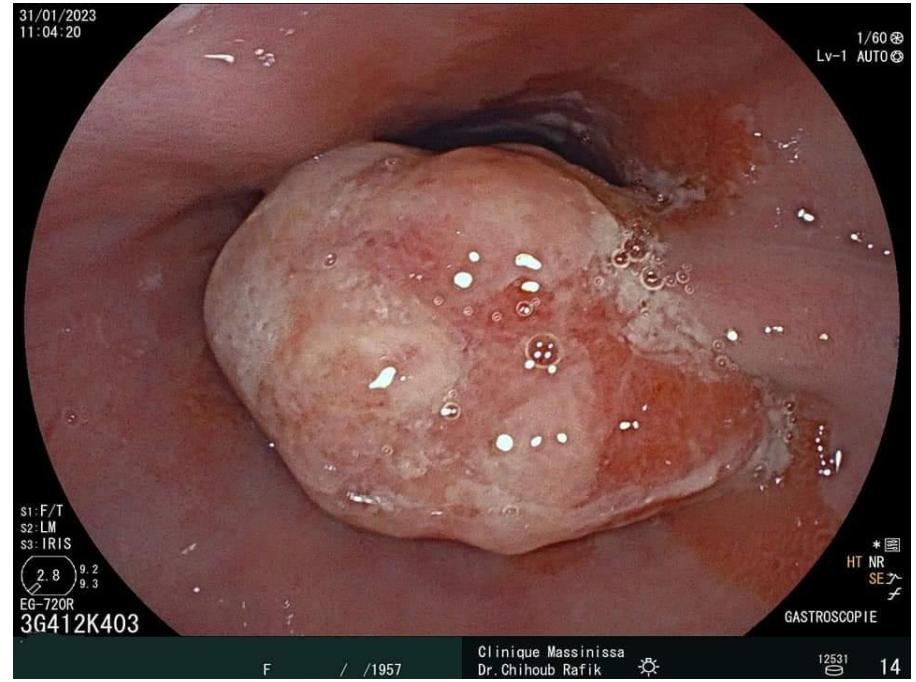
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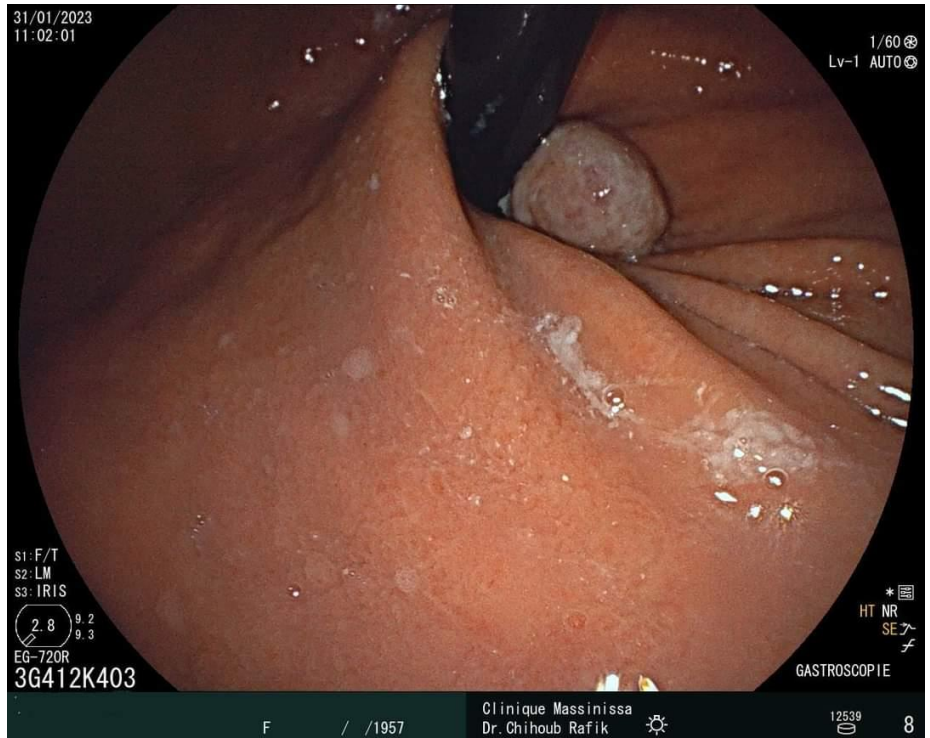
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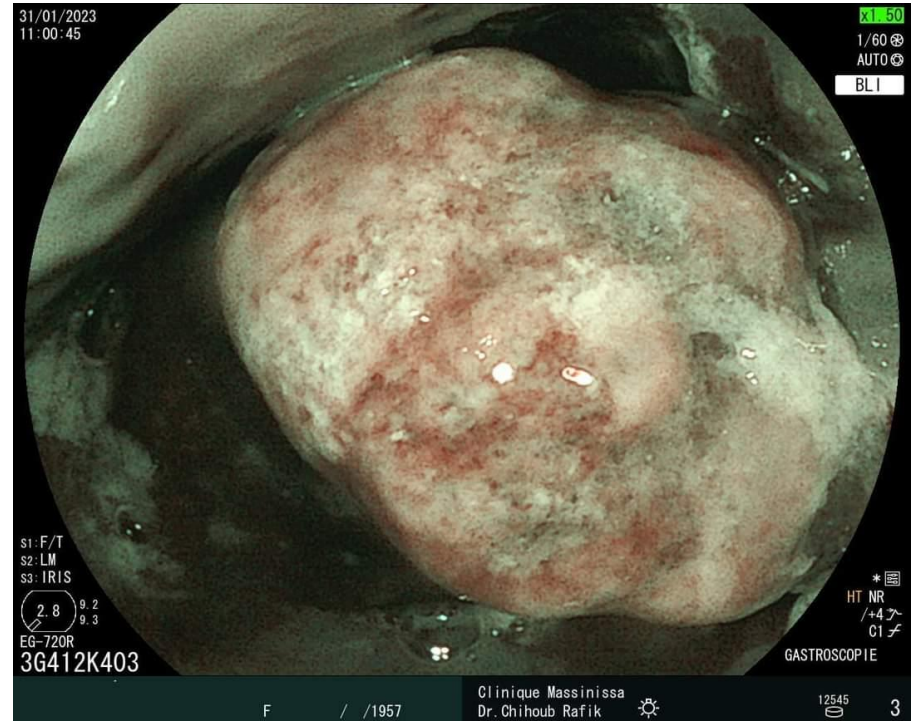
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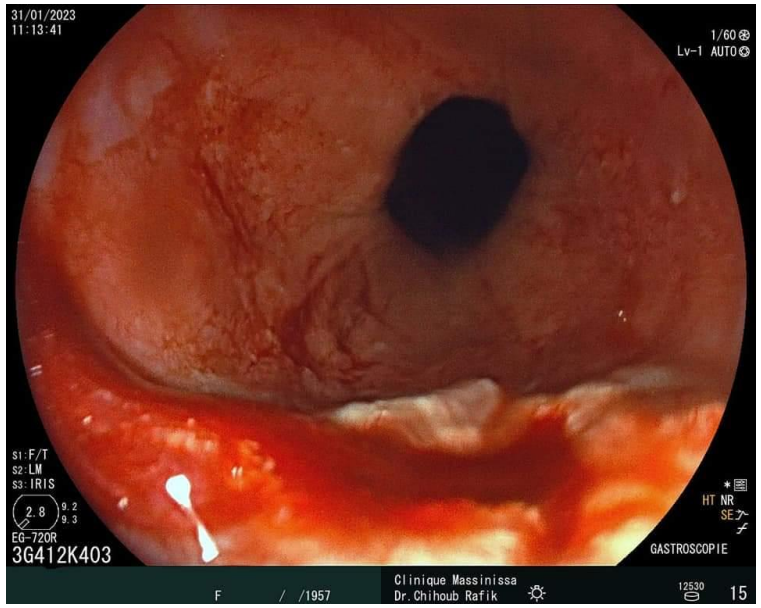
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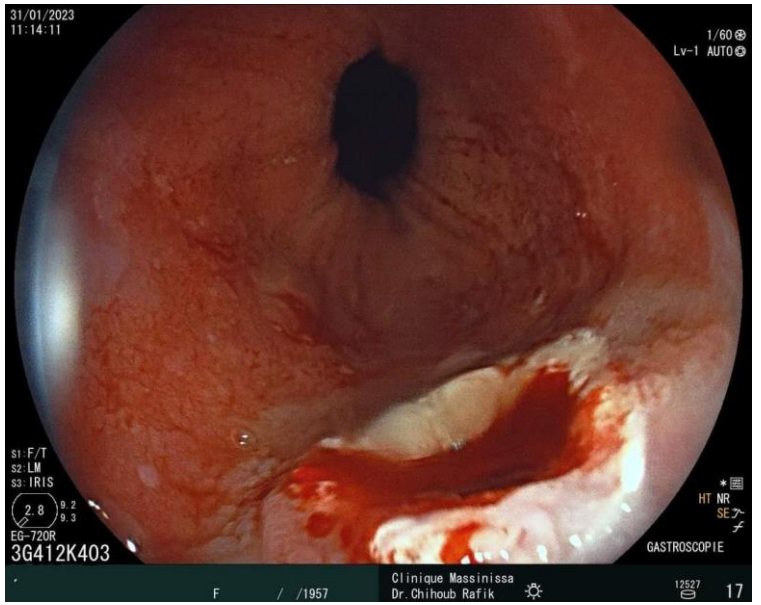
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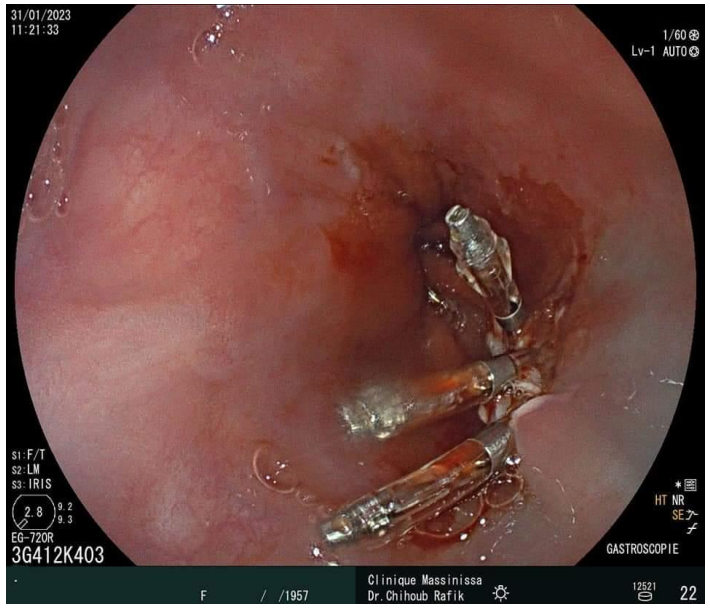
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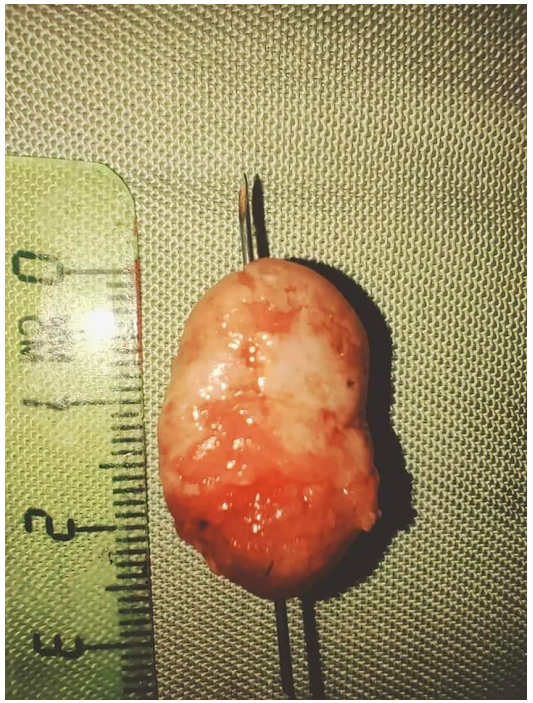
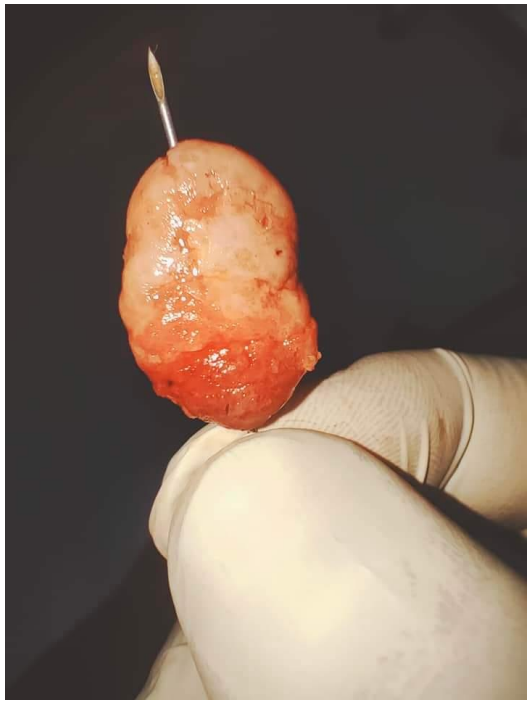
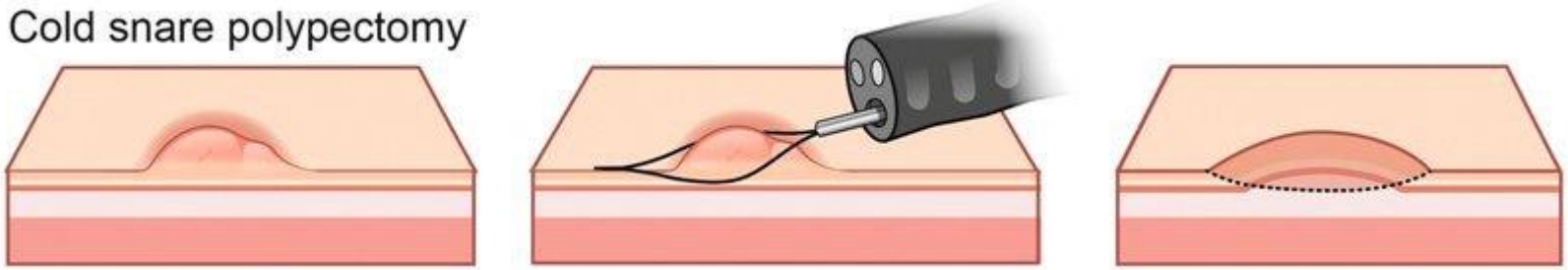
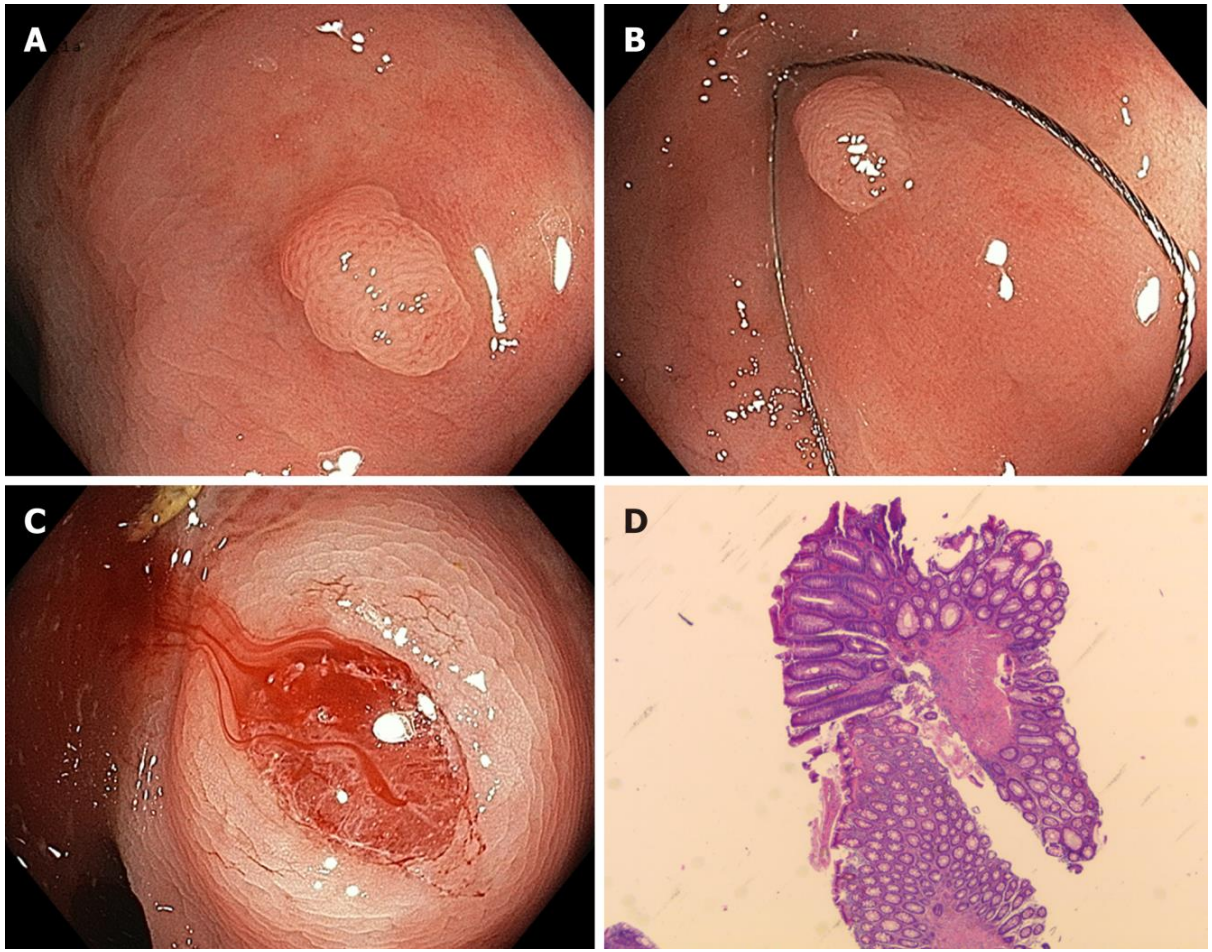




Polypes sessiles / plans

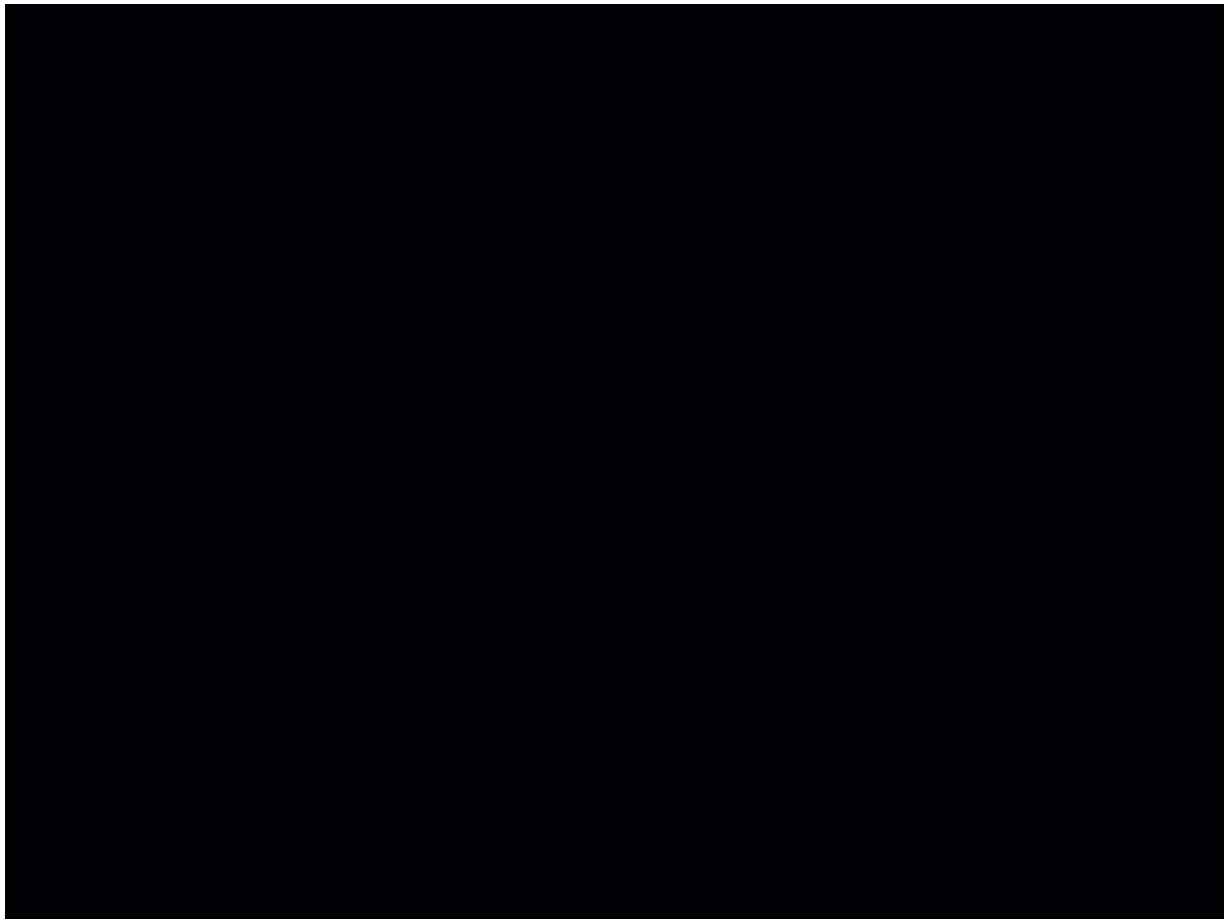
- Polypes < 10mm: anse froide
- Nettement supérieure a la pince a biopsies en matière de taux de résection complète.
- Moins de risque de saignement et de perforation Vs anse chaude
- Les années a venir : résection des lésions de 15 et 20mm a l'anse froide? « Cold Revolution »





Résection a l’anse froide
Cold snare polypectomy

Anse froide



Polypes sessiles / plans

- Polypes entre 10 et 20mm:

Résection par Mucosectomie:

- Injection sous muqueuse:

 * injection a 45°, en rentrant avec l'aiguille ou en sortant.

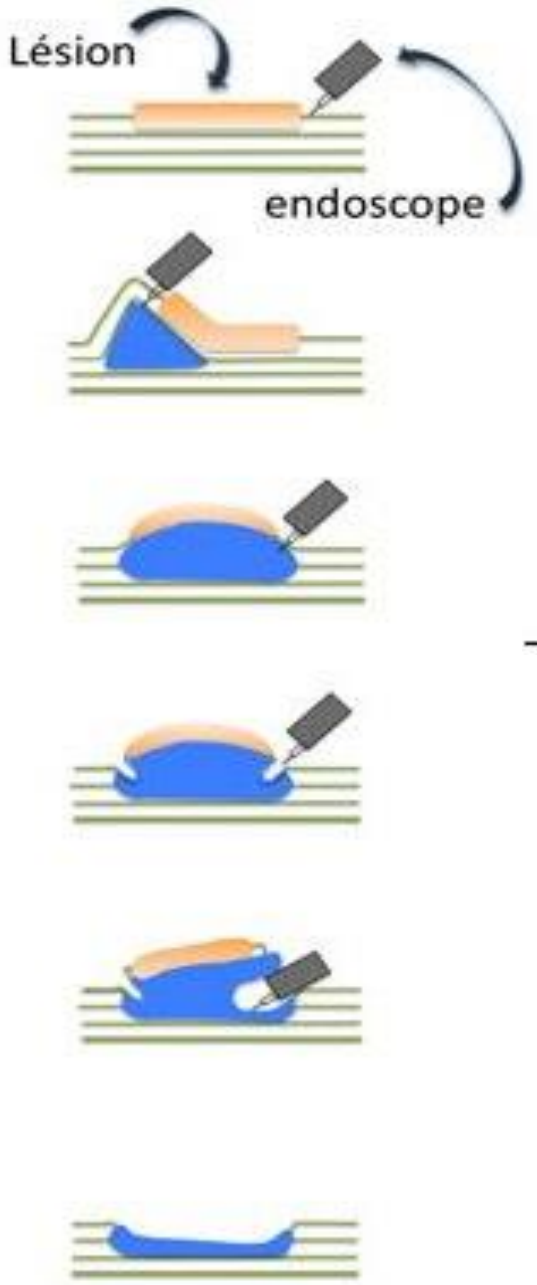
 * pole distal puis proximal

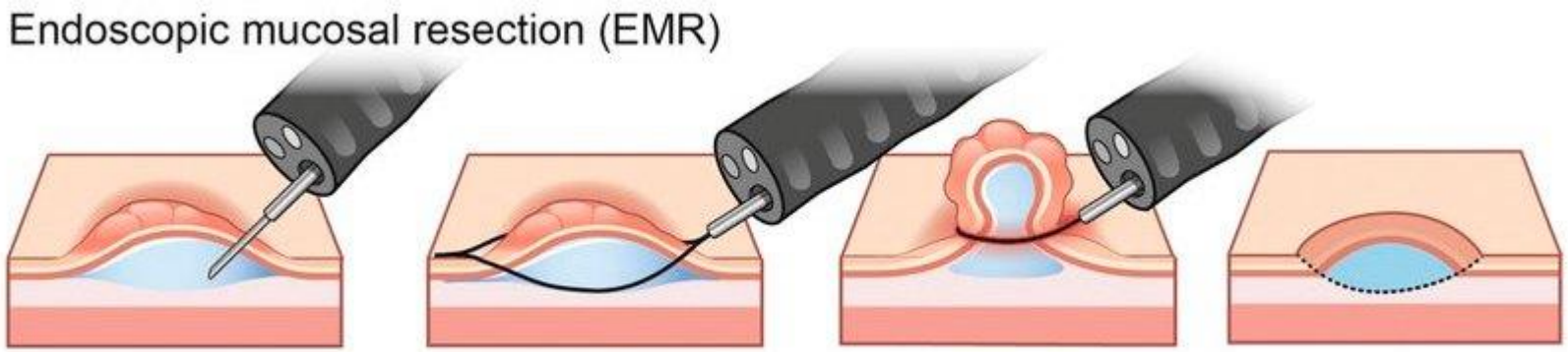
 * sérum physiologique / adrénaliné?!!

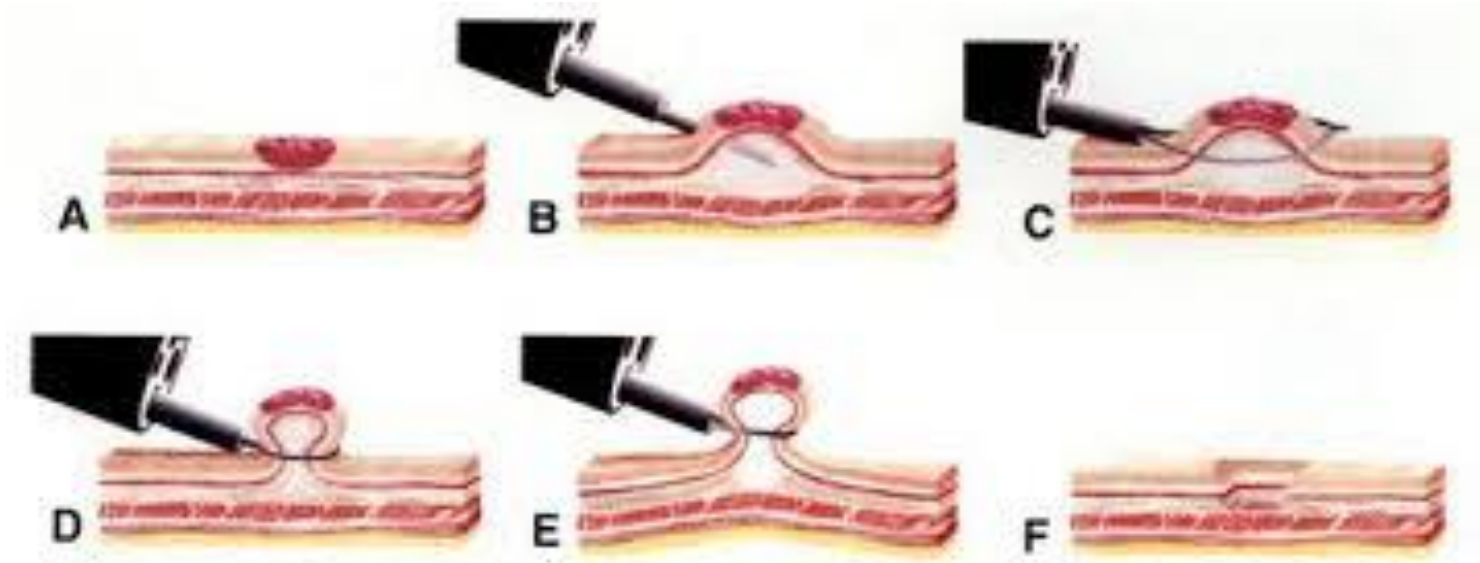
 * indigo carmin / Bleu de Méthylène.

- Positionnement : a 6h ou 5h (selon canal operateur).
- Prise du polype / fermeture progressive synchronisée.
- Coups d'aspiration au moment de la fermeture.
- Apres fermeture: pas précipitation, évaluation de la prise avant résection++

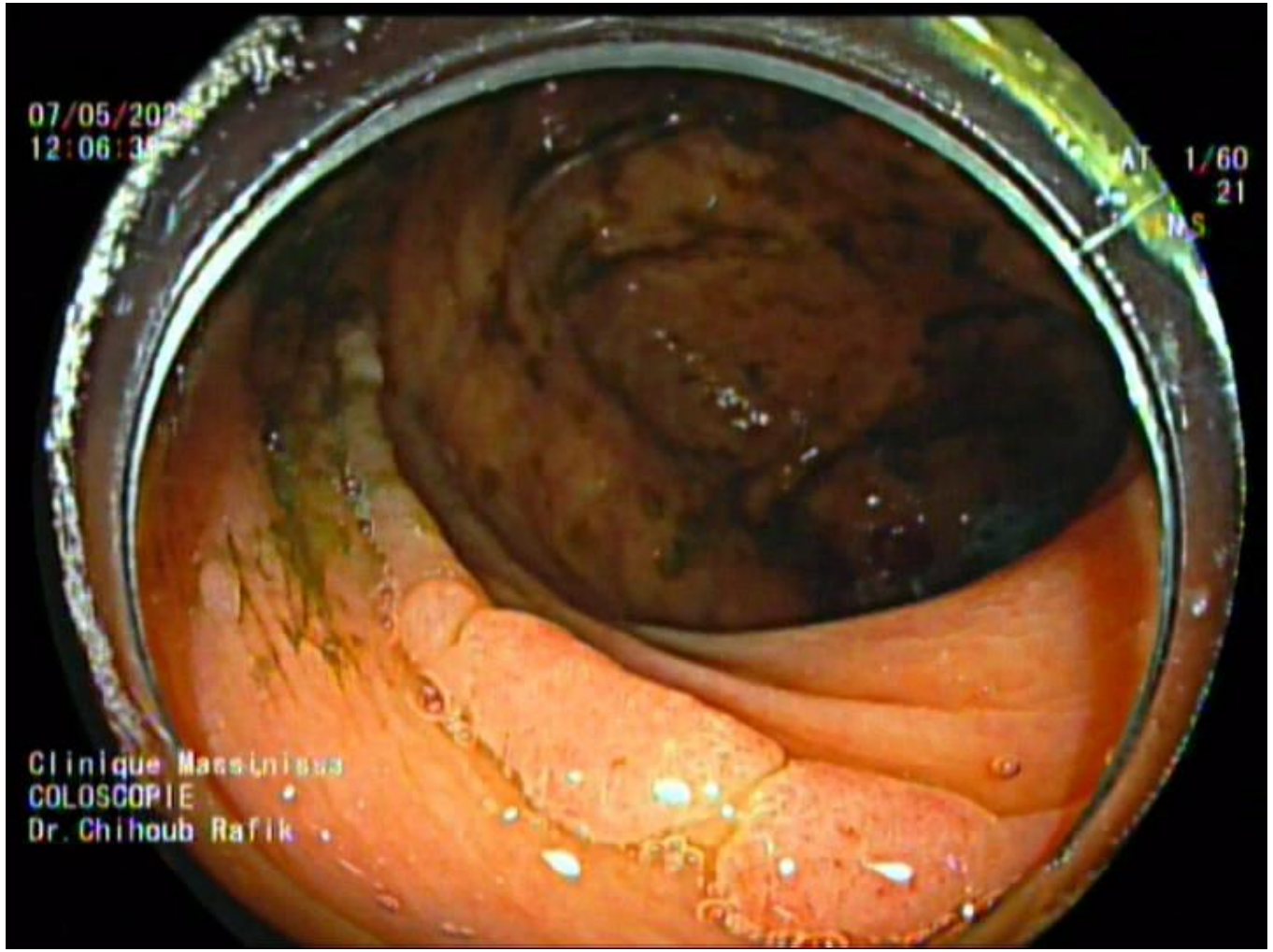
Mucosectomie a l'anse chaude
Hot Snare Mucosectomy







Mucosectomie



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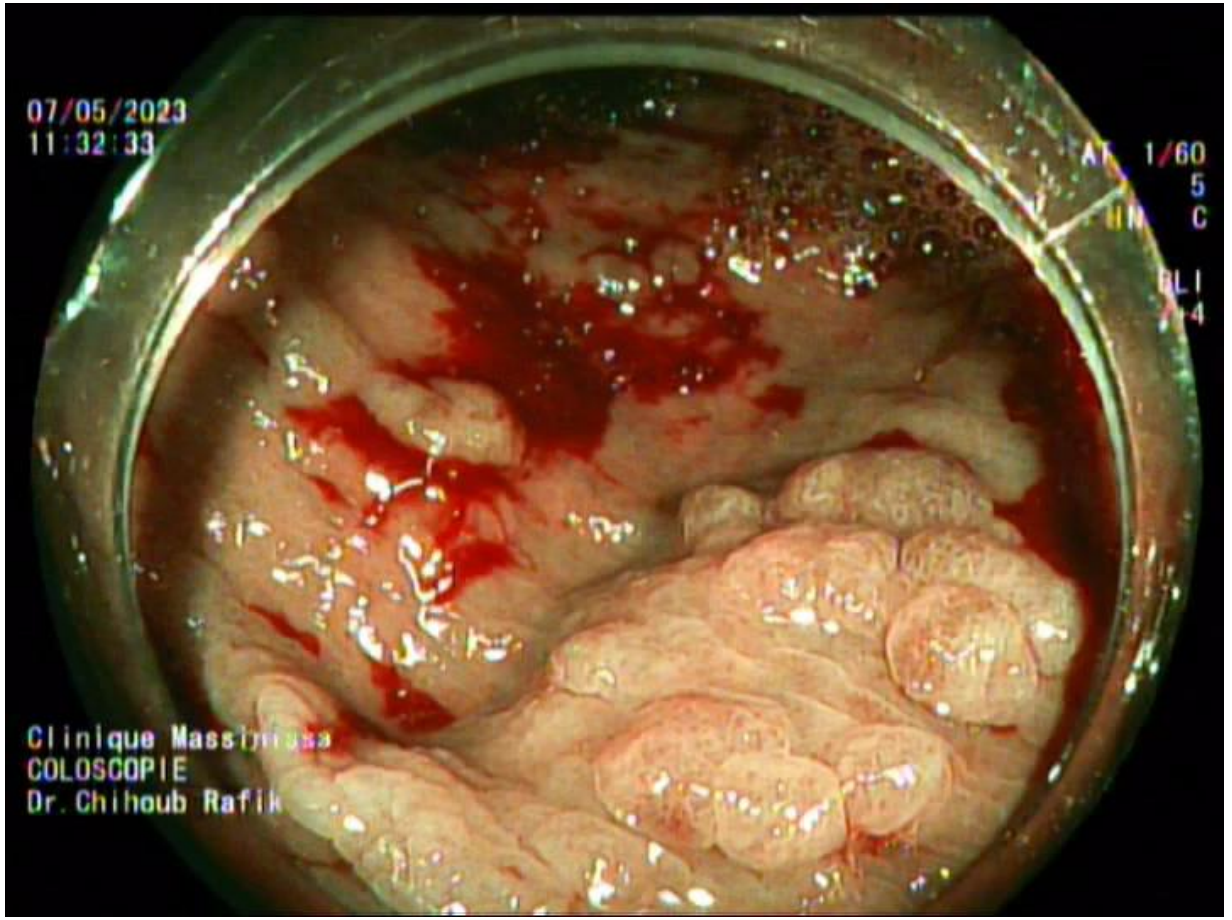
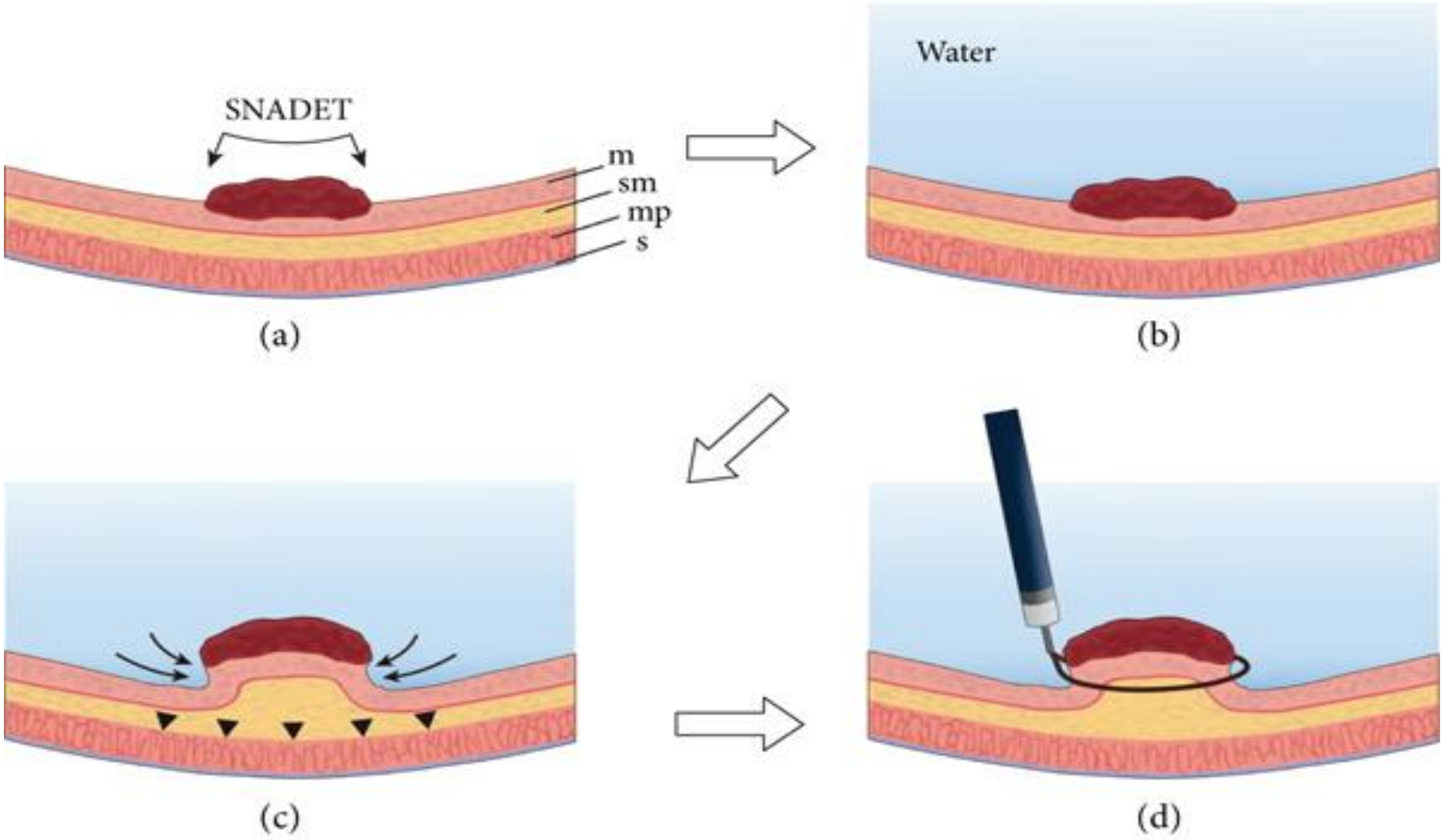
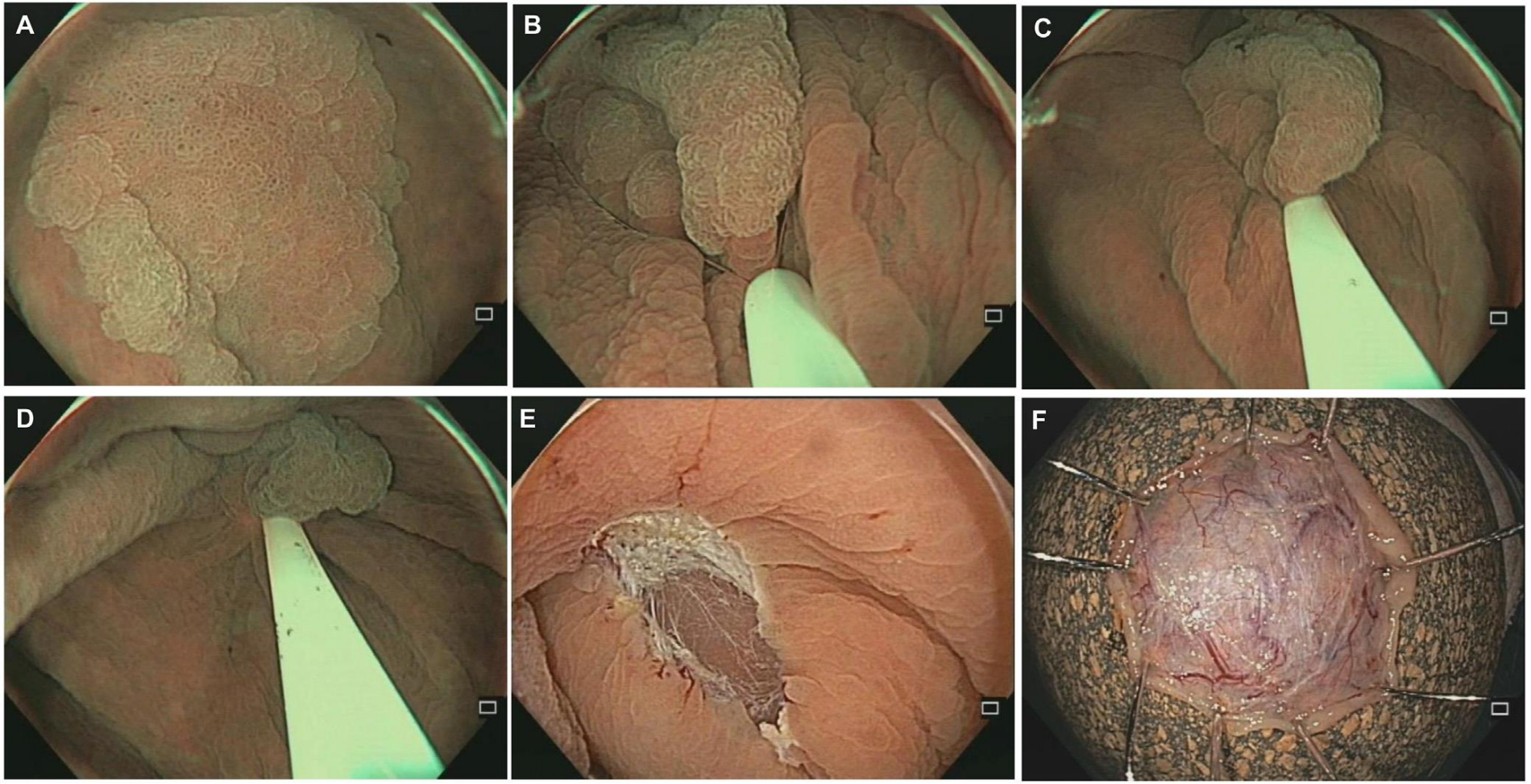


Underwater mucosectomy



Underwater mucosectomy



Polypes sessiles / plans

- Polypes > 20mm:

- Mucosectomie : Monobloc / peace meal.
- Caracterisation +++
- Peace meal:

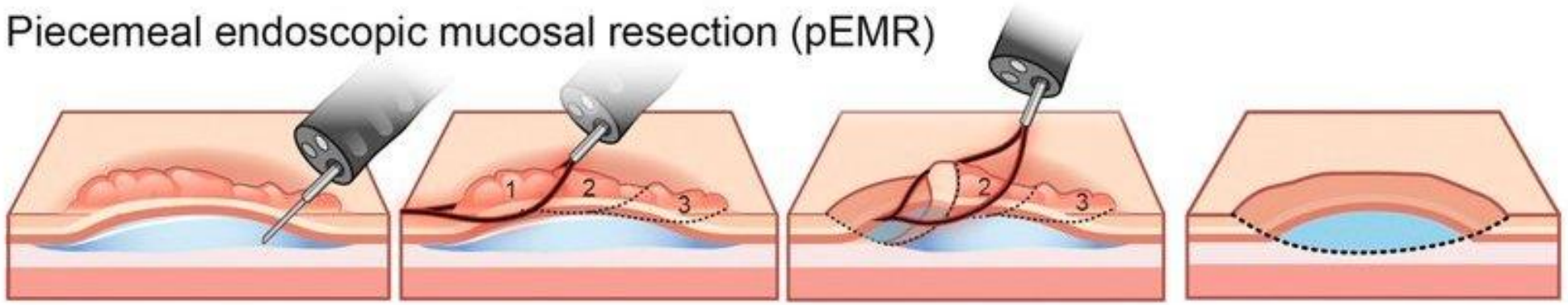
*injection par zones.

* résection de proche en proche.

* faire le moins de fragments possibles

* ne jamais laisser des reliquats au centre.

Peace Meal Mucosectomy



Polypes sessiles / plans

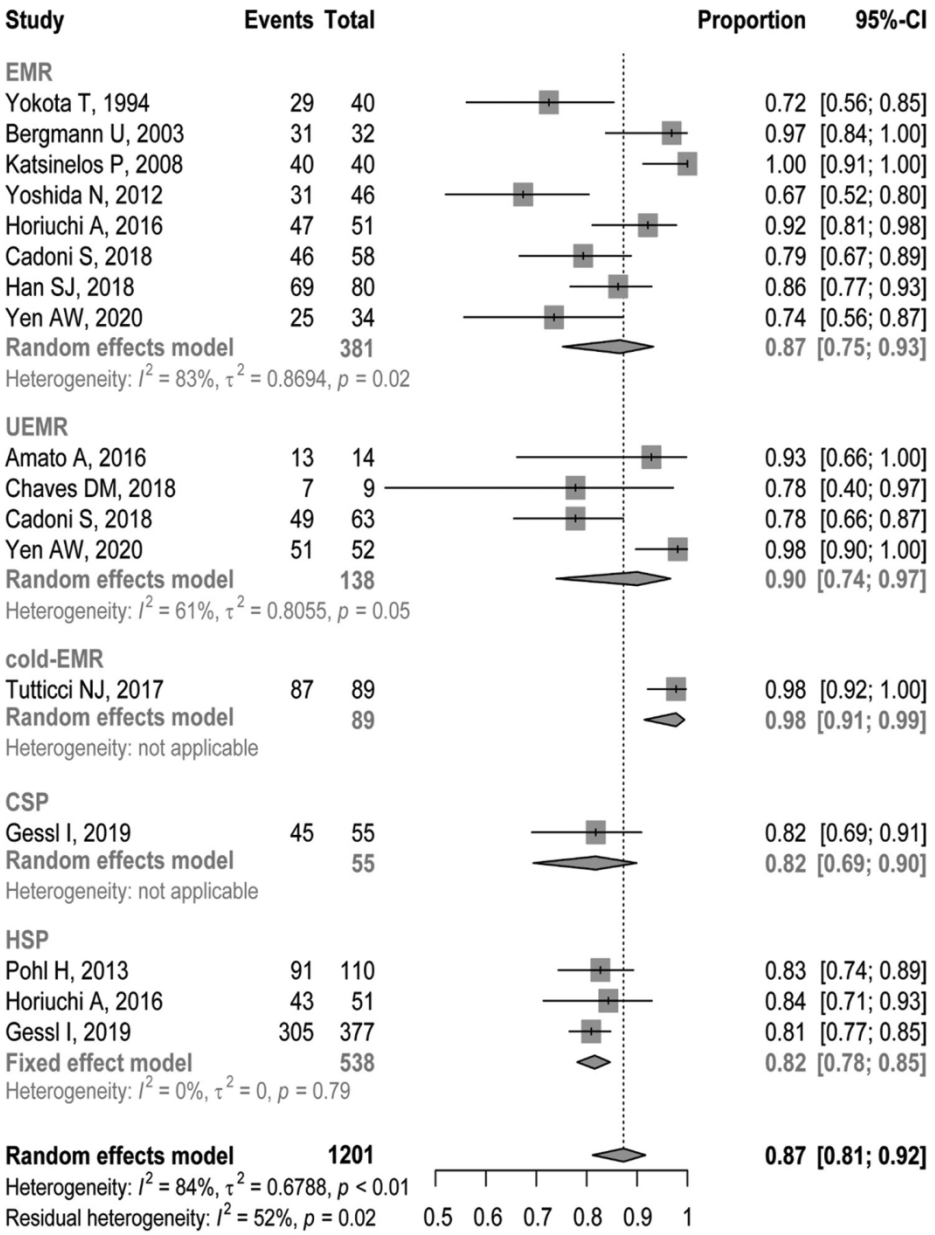
- Apres mucosectomie:
- Bien inspecter les berges.
- Chercher le signe de la cible +++
- Faire l’hemostase si nécessaire (coagulation des vaisseaux visibles).
- Coagulation des berges : aucune preuve scientifique d’efficacité a l’heure actuelle.
- Suspicion d’une dégénérescence: tatouage de la zone a l’encre de chine ou mise en place d’un clip.

Quelle technique de Mucosectomie?

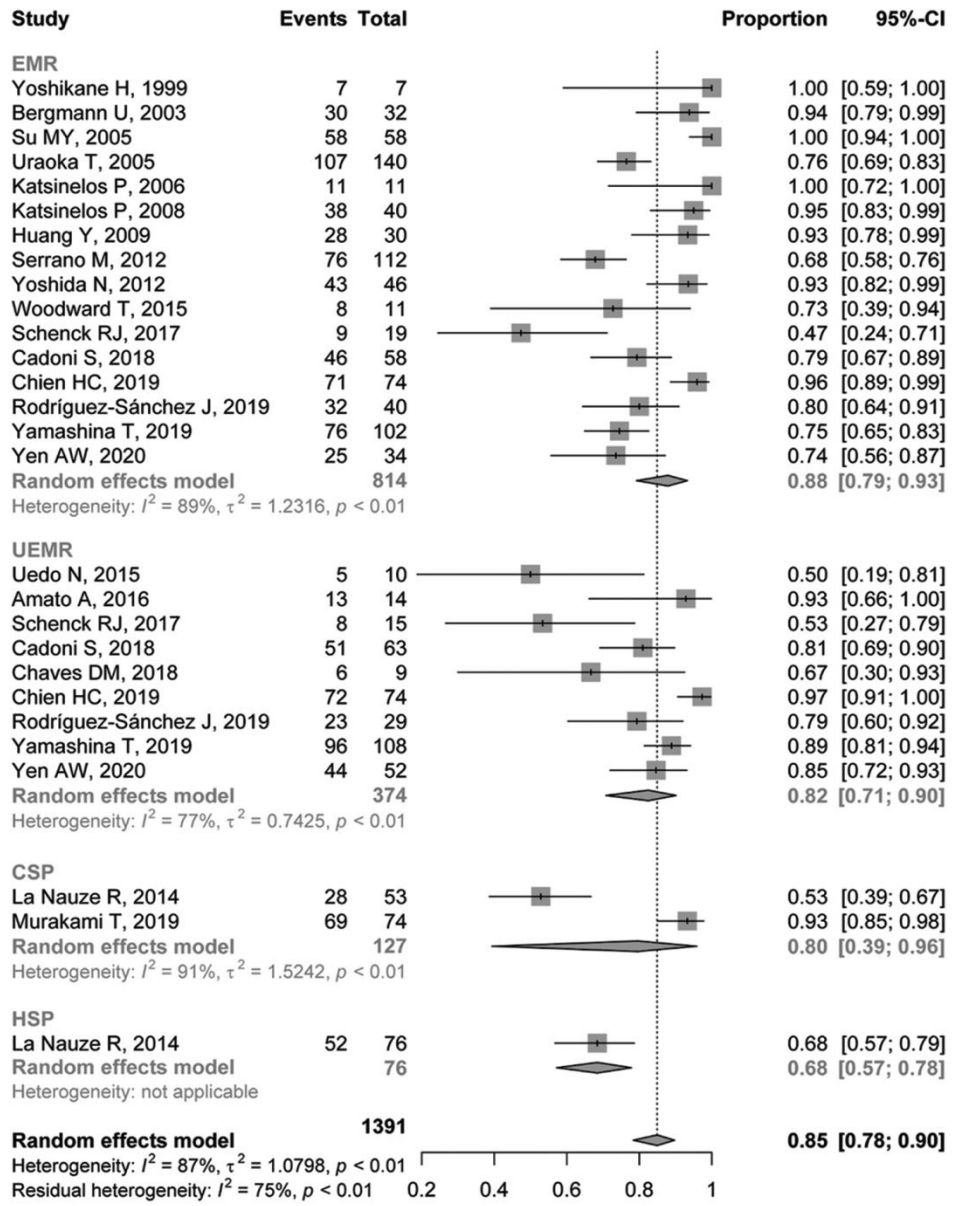
- Mucosectomie classique.
- Underwater mucosectomie.
- Cold mucosectomie.

A systematic review and pooled analysis

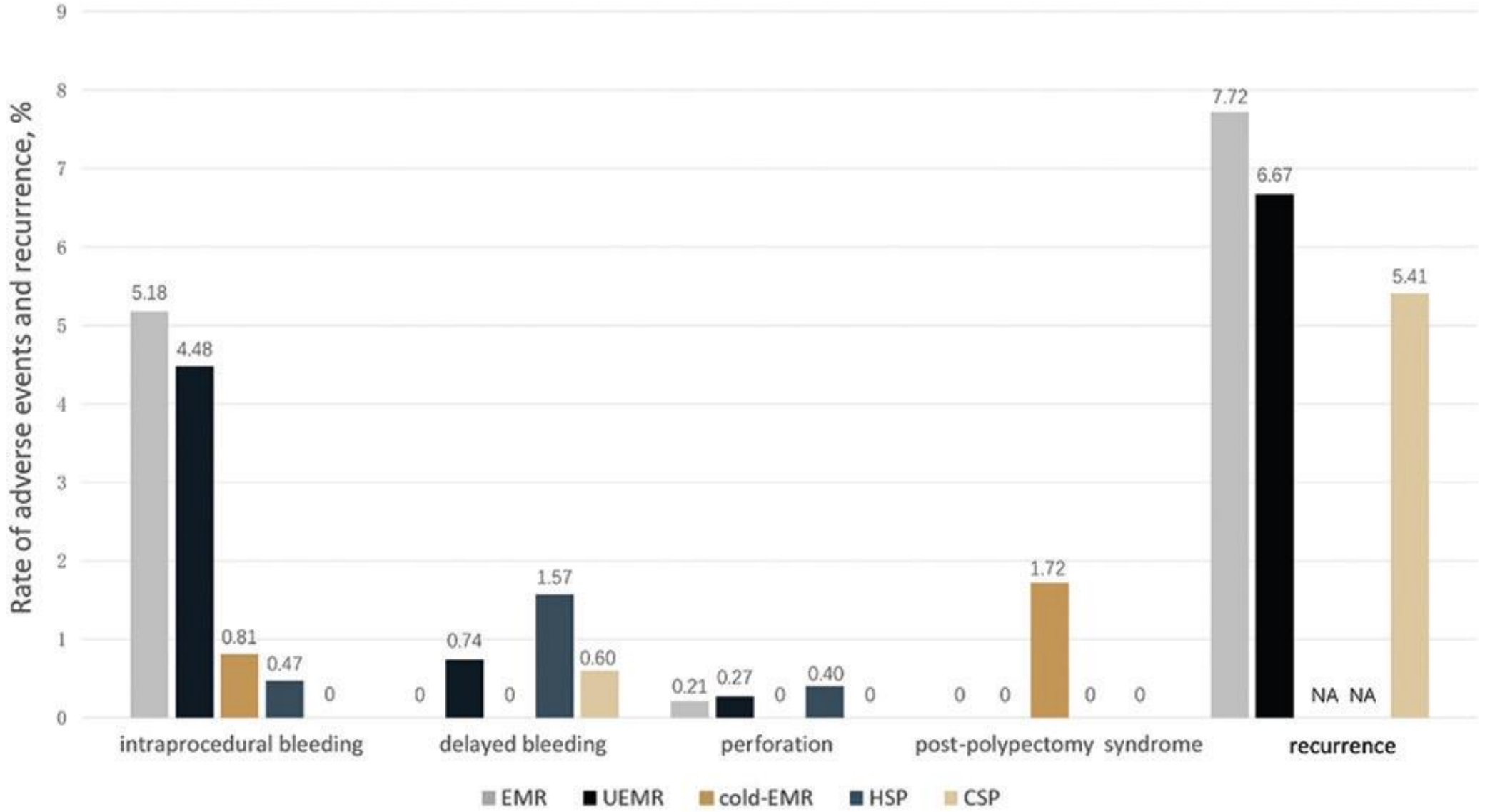
- Literature review: PubMed, EMBASE, and the Cochrane Library.
- common endoscopic treatment of 10-.to 20-mm non pedunculated polyps.
- As of April 2020.
- 36 studies
- 3212 polyps
- Technics: EMR / CEMR / UEMR.
- Primary outcomes: R0 résection rate / En bloc résection rate.
- Secondary outcomes: safety / récurrence rate.



R0 resection rate



En bloc resection rate


Rate of adverse events and recurrence, %
9
8
7
6
5
4
3
2
1
0
5.18
4.48
0.81
0.47
0
0
0.74
0
1.57
0.60
0.21
0.27
0
0.40
0
0
0
1.72
0
0
7.72
6.67
NA
NA
5.41
intraprocedural bleeding
delayed bleeding
perforation
post-polypectomy syndrome
recurrence
EMR
UEMR
cold-EMR
HSP
CSP

UEMR Vs Conventional EMR

- Multicenter randomized controlled trial.
- 5 institutions in Japan.
- intermediate-size (10–20 mm) sessile colorectal lesions were randomly assigned to undergo UEMR or CEMR.
- 108 colorectal lesions in the UEMR group.
- 102 lesions in the CEMR group.
- R0 resection: en bloc resection with a histologically confirmed negative resection margin.

UEMR Vs Conventional EMR

Table 2. Procedure-related Outcomes in this Study

Parameter	CEMR group (n = 102)	UEMR group (n = 108)	*P*
R0 resection	51	74	.011
Rate, % (95% CI)	50 (40–60)	69 (59–77)	
R1 resection	24	16	
RX resection	27	18	
En bloc resection	76	96	.007
Rate, % (95% CI)	75 (65–83)	89 (81–94)	
Piecemeal resection	26	12	
Median procedure time, *seconds* (IQR)	175 (130–266)	165 (117–274)	.629
Histological type, n (%)			.089
Sessile serrated adenoma/polyps	17 (17)	17 (16)	
Adenoma	67 (66)	70 (65)	
Intramucosal adenocarcinoma	15 (15)	15 (14)	
Submucosal adenocarcinoma			
<1000 μm	0	2 (1.9)	
≥1000 μm	2 (2.0)	1 (0.9)	
Others	1 (1.0)	3 (2.8)	

CI, confidence interval; IQR, interquartile range.

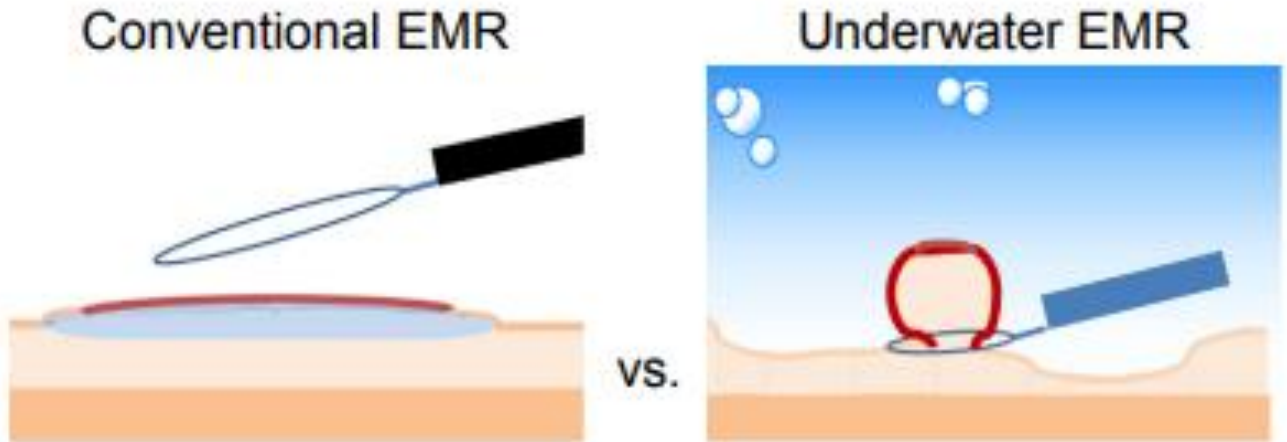
Table 3. Adverse Events in This Study

Adverse events	CEMR group (n = 102)	UEMR group (n = 108)
Delayed bleeding	2 (Grade 2[a])	3 (Grade 2[a])
≤48 h after procedure	2	3
>48 h after procedure	0	0
Intraprocedural perforation	0	0
Delayed perforation	0	0
Hyponatremia	0	0

[a]Based on the Common Toxicity Criteria for Adverse Events 4.03.

Gastroenterology 2019;157:451–461

Comparison of Underwater and Conventional Endoscopic Mucosal Resection (EMR) for Intermediate-Size Colorectal Polyps



R0 resection rate:	50 [40–60] %	69 [59–77] %	P = .011
En bloc resection rate:	75 [65–83] %	89 [81–94] %	P = .007

Gastroenterology

Gastroenterology 2019;157:451–461

WHAT YOU NEED TO KNOW

BACKGROUND AND CONTEXT

Endoscopic mucosal resection (EMR) with submucosal injection is performed to remove colorectal polyps, although the en bloc resection rate decreases when polyp size exceeds 10 mm. Underwater EMR is an effective technique for removal of sessile colorectal polyps.

NEW FINDINGS

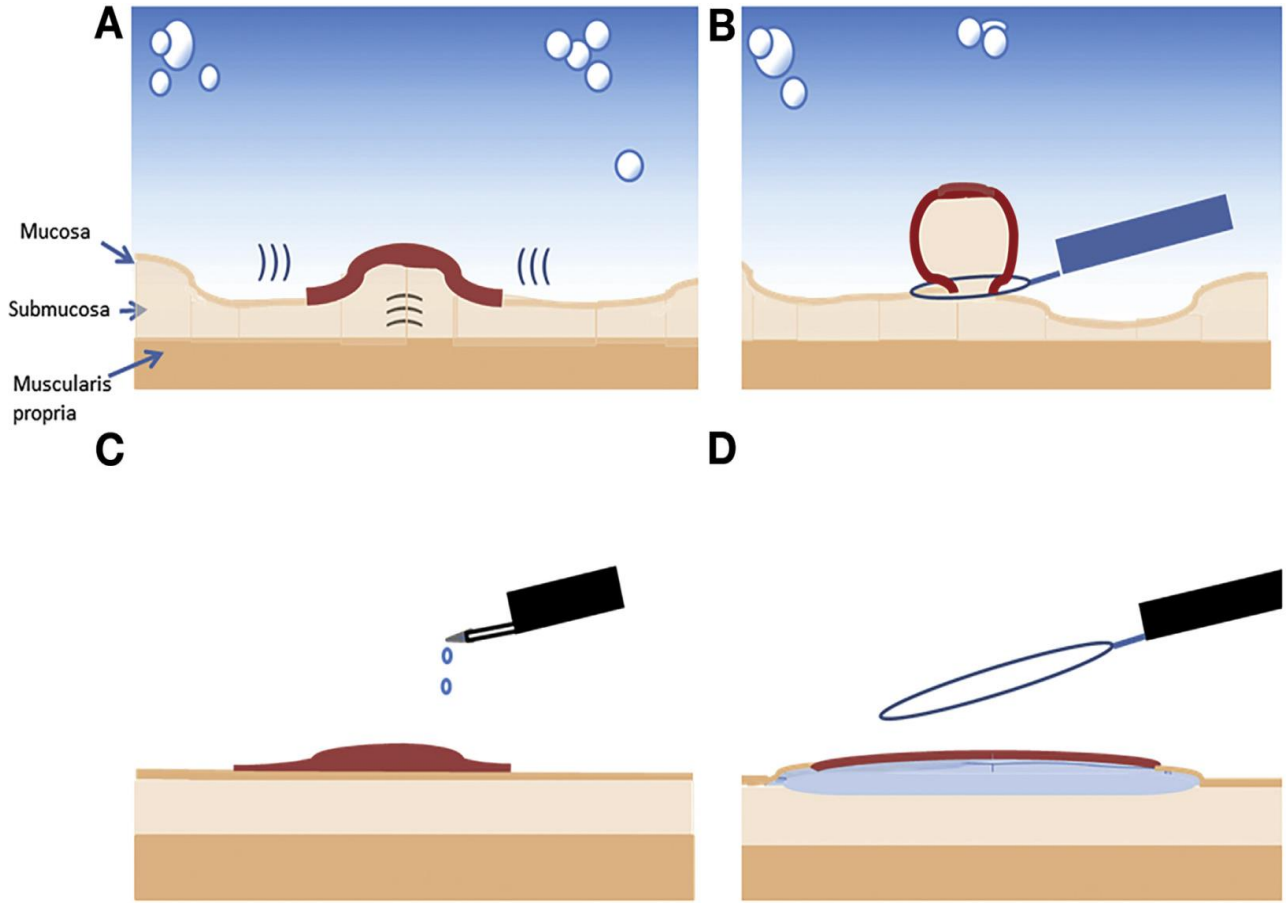
In a multicenter randomized controlled trial, underwater EMR significantly increased the proportions of R0 resections for 10- to 20-mm sessile colorectal lesions without increasing adverse events or procedure time.

LIMITATIONS

Endoscopists were not blinded to the procedure they performed, and there was no long-term follow-up data on recurrence.

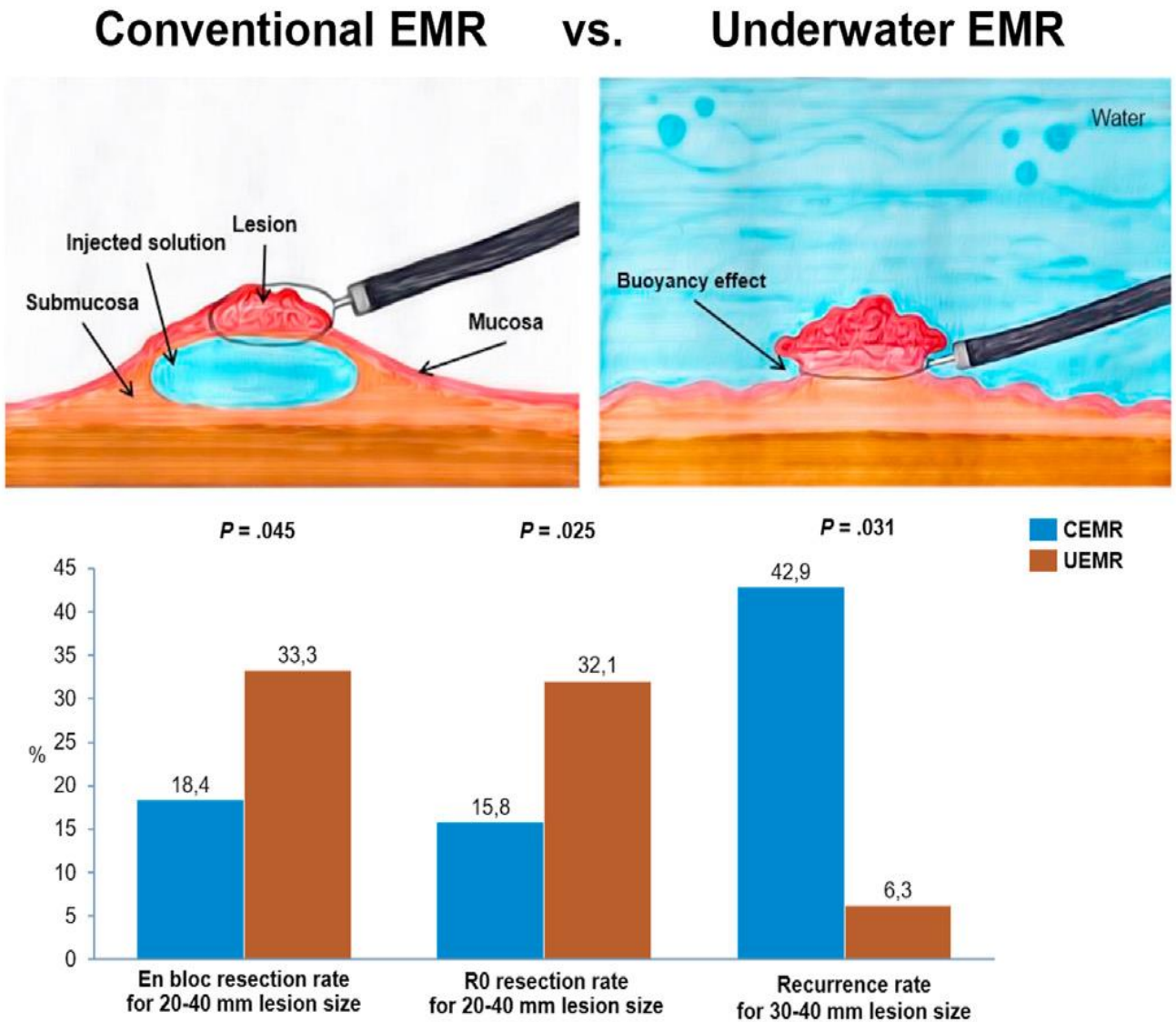
IMPACT

The results recommend use of underwater EMR over CEMR for endoscopic removal of intermediate-size (10–20 mm) colorectal polyps.



Gastroenterology 2019;157:451–461

Is UEMR superior to CEMR for lesions 20 – 40 mm in size?



Gastroenterology

Gastroenterology 2021;161:1460–1474

WHAT YOU NEED TO KNOW

BACKGROUND AND CONTEXT

Conventional endoscopic mucosal resection (CEMR) with submucosal injection is the current standard for the resection of large, nonmalignant colorectal polyps. Underwater endoscopic mucosal resection (UEMR) has been shown to be more effective than CEMR with regard to the R0 resection rate for intermediate-size (10–20-mm) colorectal polyps.

NEW FINDINGS

In a randomized controlled trial, UEMR showed superiority to CEMR regarding en bloc resection, R0 resection, and procedure time for large colorectal polyps 20–40 mm in size and significantly decreased the recurrence rate for lesions >30 mm to ≤40 mm in size.

LIMITATIONS

Single-center trial.

IMPACT

The results recommend the use of UEMR over CEMR for the resection of large colorectal polyps up to 40 mm in size.

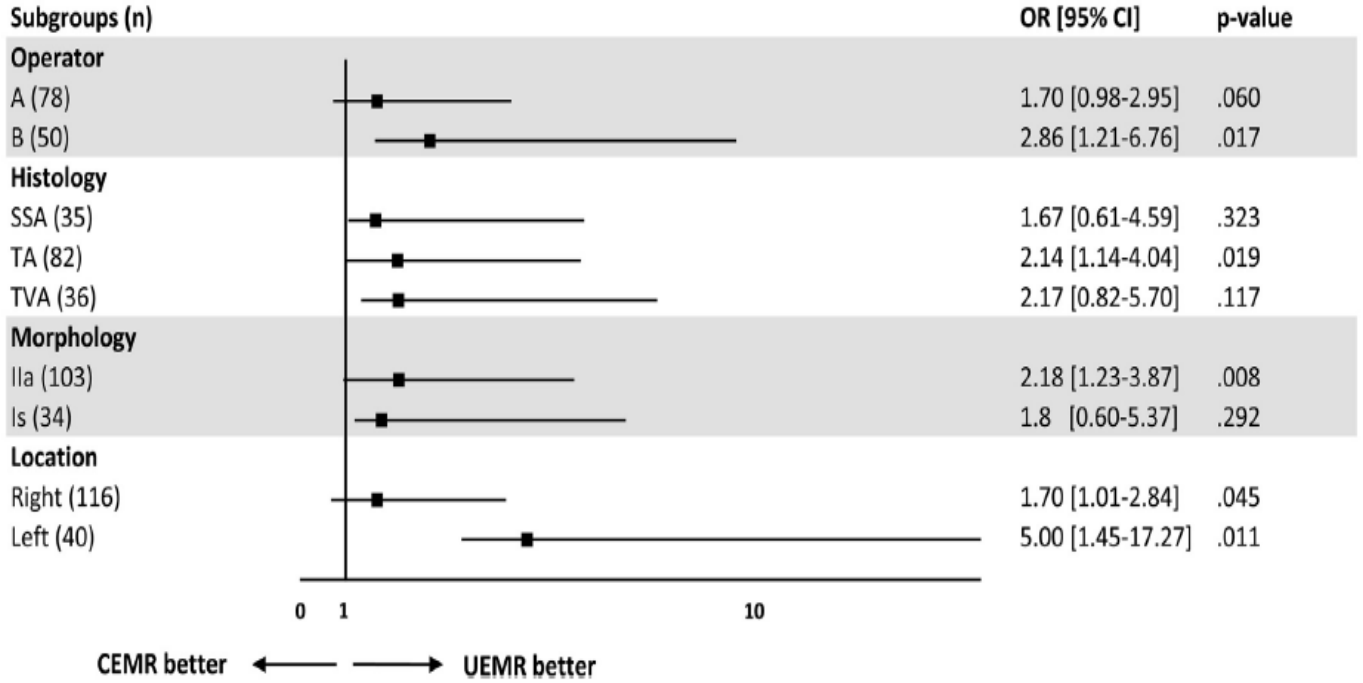


Figure 2. Subset analyses for en bloc resection. SSA, sessile serrated adenoma; TA, tubular adenoma; TVA, tubulovillous adenoma.

Gastroenterology 2021;161:1460–1474

Courbe d’apprentissage

- Absence de recommendations.
- Entre 1946 et 2019: seulement 06 études d’evaluation d’apprentissage:

 - 03 etudes polypectomie.

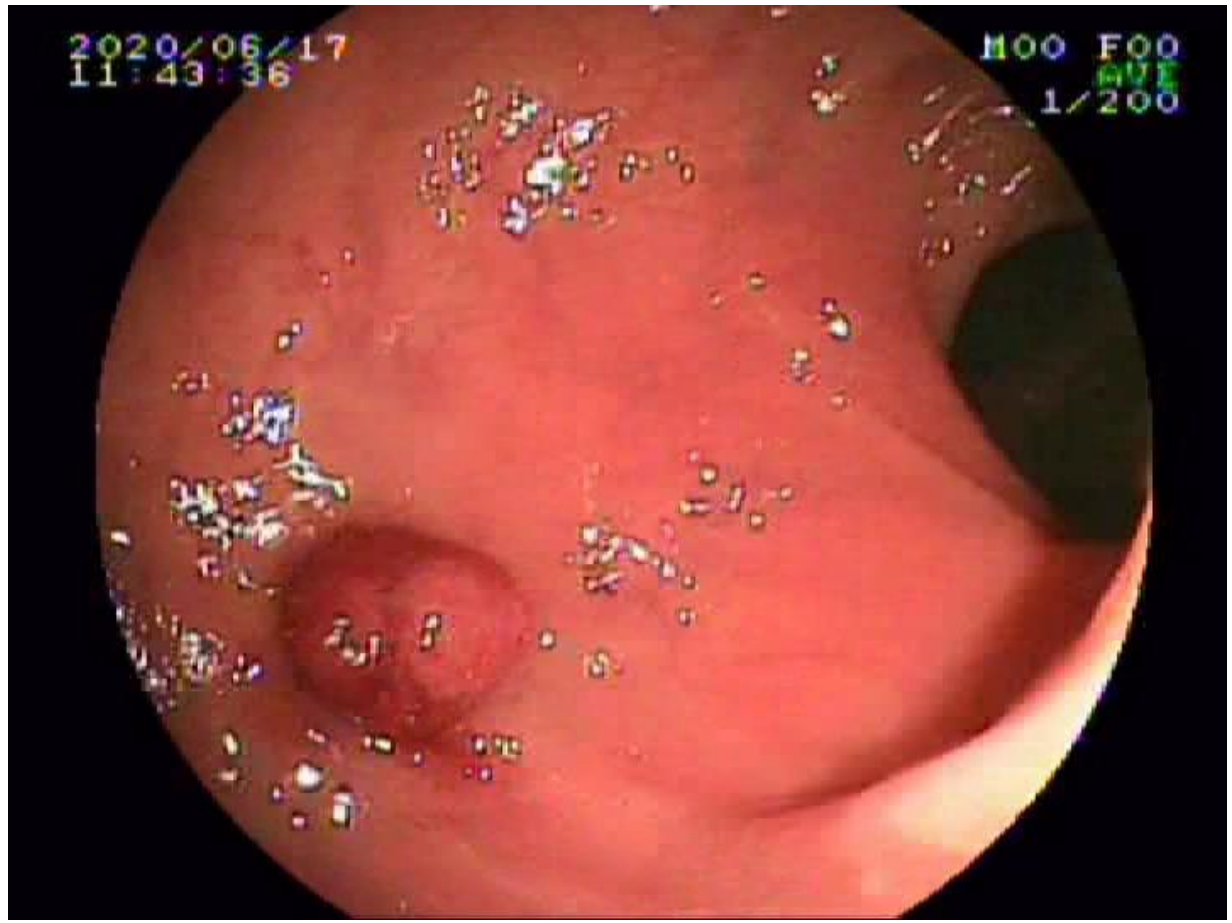
 - 03 études mucosectomie.

*Polypectomie: resection en bloc / saignement retardé : a partir de 250 / 400 polypectomies et aprés 300 coloscopies.

*EMR: resection complete / taux de recidive: entre 50 et 300 procedures.

- Bien connaitre sa theorie.
- Prendre conscience de ses limites et ses faiblesses pour les corriger et bien progresser.

A. Rajendran, S. Pannick, S. Thomas-Gibson, S. Oke, C. Anele, N. Sevdalis, A. Haycock colorectal disease, January 2020


2020/06/17
11:43:36
MOO FOO
1/200

Take home messages

- respecter la courbe d’apprentissage.
- Savoir évaluer les risques (temps d’examen du polype avant résection+++).
- Bien connaitre la théorie (indications/ risques relatifs de compications / guidlines)
- Caractérisation par chromoendoscopie: incontournable.

Tout s’apprend mais il faut avoir les moyens de sa politique.