

**CEDI**

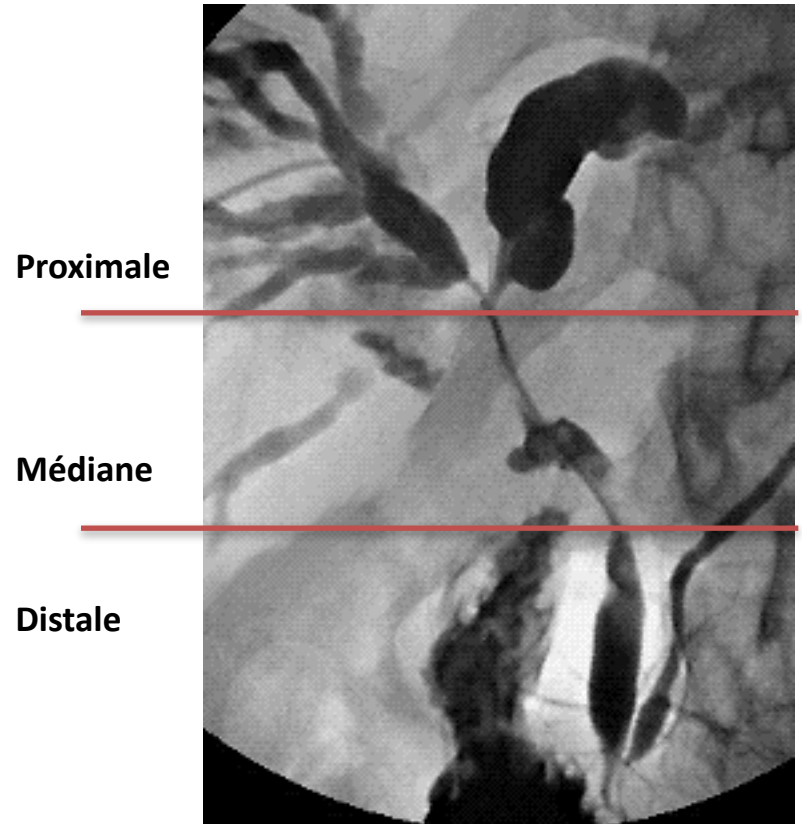
Centre d'Endoscopie  
Digestive Interventionnelle

# Apport de la cholangioscopie dans la prise en charge des sténose des voies biliaires

Dr Carlos Alberto PRATICO' MD, PhD

# Sténoses biliaires

- Multiples causes mais dominées par le sténoses malignes
- Le niveau de la sténose est un élément clé pour le diagnostique



# Sténoses biliaires

|   |   |   |
|---|---|---|
| <b>Sténoses malignes</b><br><b>80-85%</b> | Cancer pancréatique                             | Adénocarcinome                                |
|   |   | Tumeur neuroendocrine                         |
|   |   | Adénocarcinome mucineux                       |
|   | Ampullome                                       |   |
|   | Carcinome hépatocellulaire                      |   |
|   | Métastase<br>ou<br>adénopathies<br>compressives | Cancer colique                                |
|   |   | Cancer du sein                                |
|   |   | Cancer du rein                                |
| Lymphome                                  |   |   |
| Cholangiocarcinome                        |   |   |
| <b>Sténoses bénignes</b><br><b>15-20%</b> | Post chirurgicales                              | Post-cholecystectomie                         |
|   |   | Anastomotique post- transplantation hépatique |
|   | Pancréatite chronique calcifiante               |   |
|   | Cholangite sclérosante primitive                |   |
|   | Cholangite auto-immune à IgG4                   |   |
|   | Cholangite post-radique, cholangite ischémique  |   |
|   | Autres: cavernome, tuberculose, etc.            |   |

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Masse visible

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La plus souvent pas de masse visible et preuve histologique difficile: 13 à 24% des sténoses opérés sans histologie sont bénignes

- Diagnostique histologique = Facteur décisionnel primordial
  - Traitement médical / chirurgical / instrumental
- Mais diagnostique difficile
  - Cytologie bile
  - Brossage sous fluoroscopie
  - Biopsie sous fluoroscopie

| Technologie                          | Sensibilité % | Spécificité % | Valeur prédictive positive % |
|--------------------------------------|---------------|---------------|------------------------------|
| CPRE brossage                        | 23-62.5       | 26-100        | 31-81.3                      |
| CPRE biopsie biliaire (fluoroscopie) | 42-91         | 97-100        | 30-93                        |
| CPRE Brossage + Biopsie              | 60-70         | 100           | 50                           |
| FNA                                  | 43-86         | 97            |                              |

Navaneethan U, GIE 2015  
Sadeghi A, GIE 2016  
Burnett AS, J Surg Res 2013  
Levy, Am J Gastro 2008

# Cholangioscopie rétrograde

**1970**  
Cholangioscopie  
« mother-baby »

**2015**  
2<sup>ème</sup> génération  
SpyGlass DS

**2007**  
SpyGlass  
fibre optique

**2018**  
3<sup>ème</sup> génération  
SpyGlass DS II

1970

2007

2011

2015

2017

2018

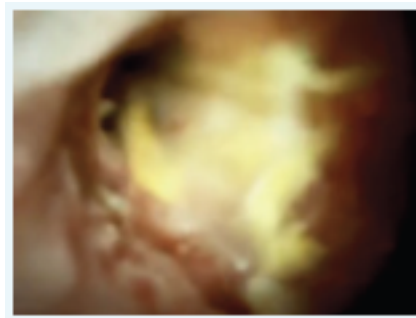
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*Slow adoption due to  
technical & cost limitations.*

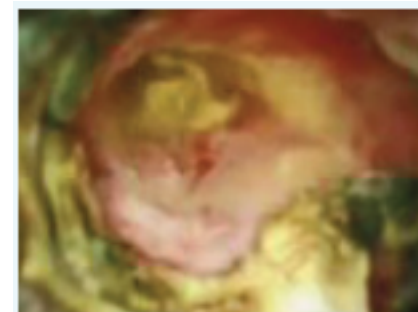




# Cholangioscopie rétrograde



2 1/2 MEILLEURE  
RÉSOLUTION



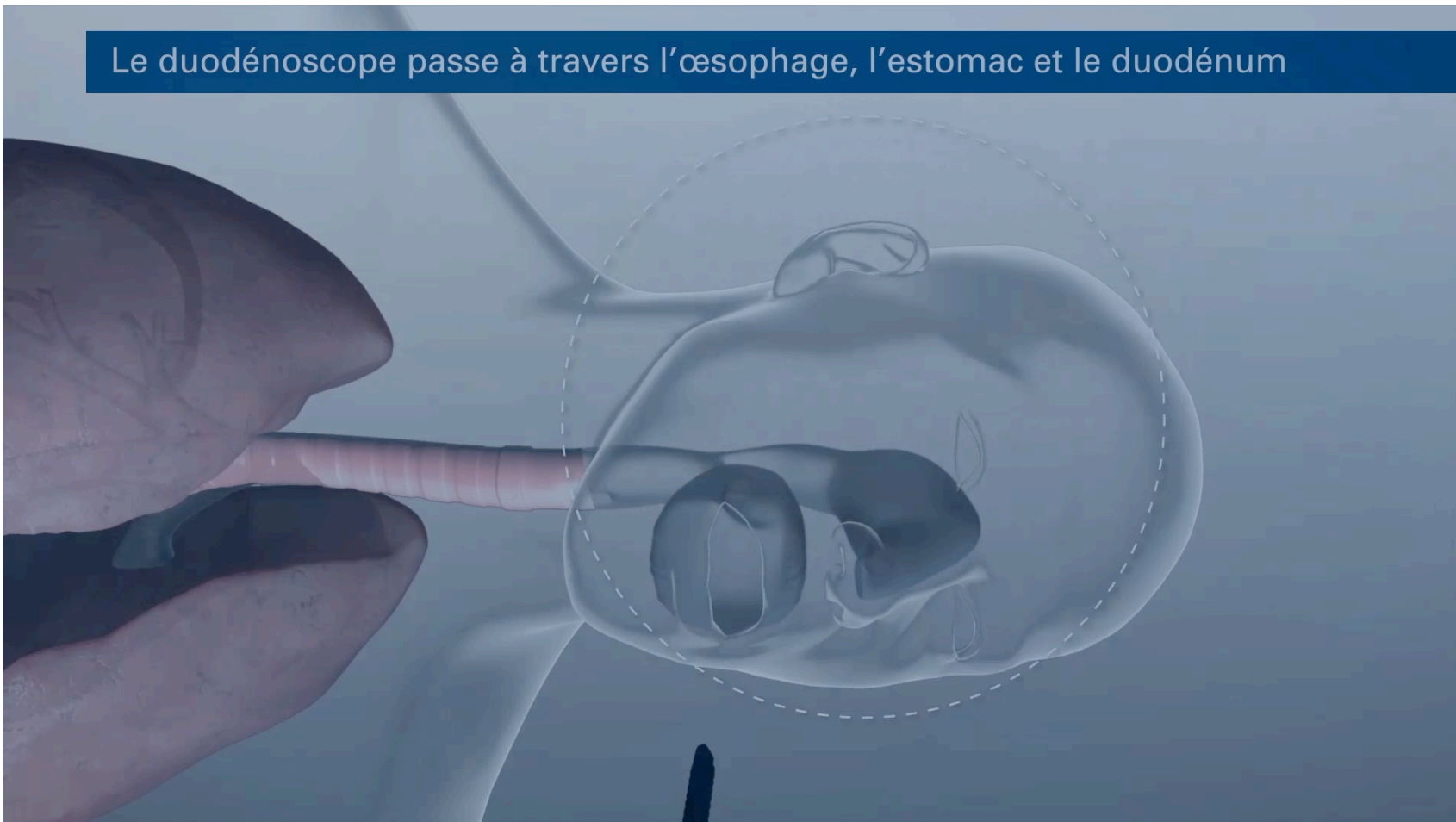
Pince à biopsie  
SpyBite™



Lithotripsie



Le duodéno­scope passe à travers l'œsophage, l'estomac et le duodénum



Canaux normaux



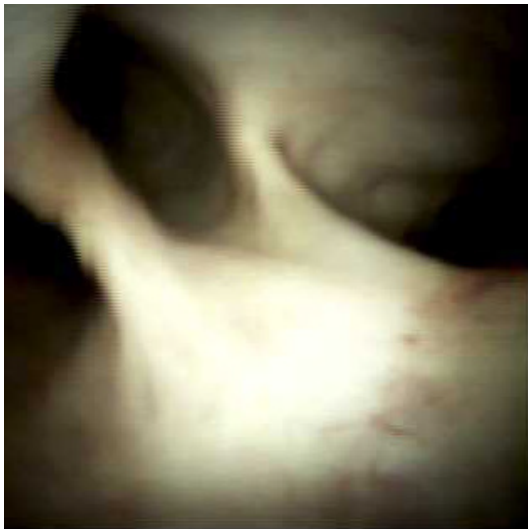
Canal cholédoque



Jonction canal cystique



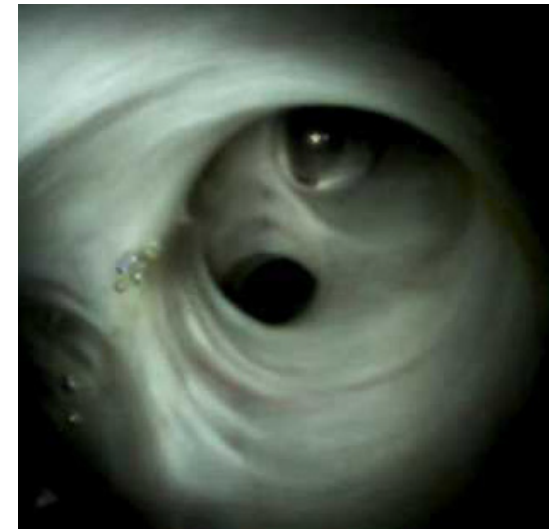
Canal hépatique commun



Hile du canal  
hépatique droit



Canal hépatique  
postérieur gauche



Canal hépatique  
postérieur droit

# Pathologies bénignes



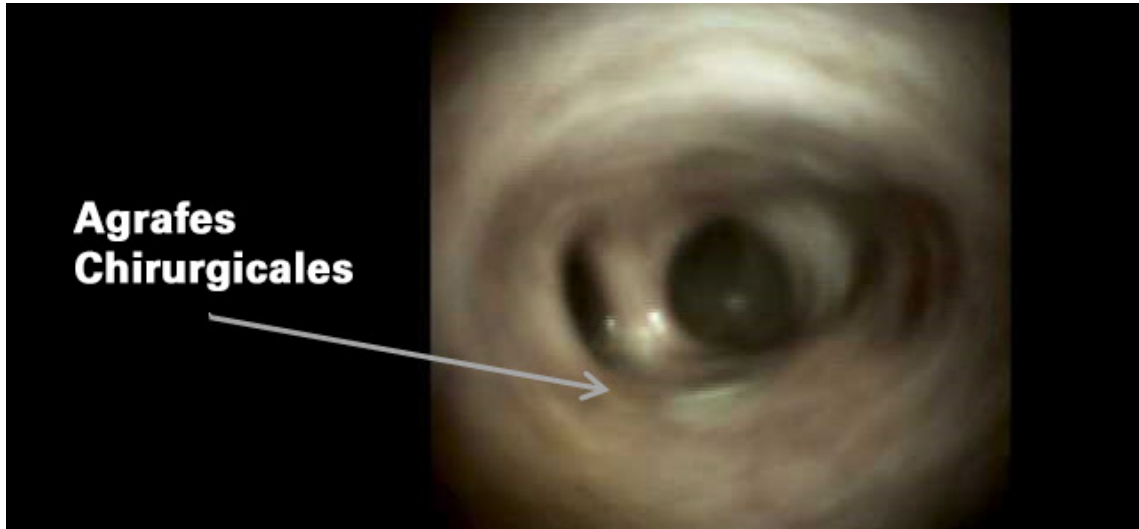
Calcul intra-hépatique



Sténose bénigne post-transplantation hépatique



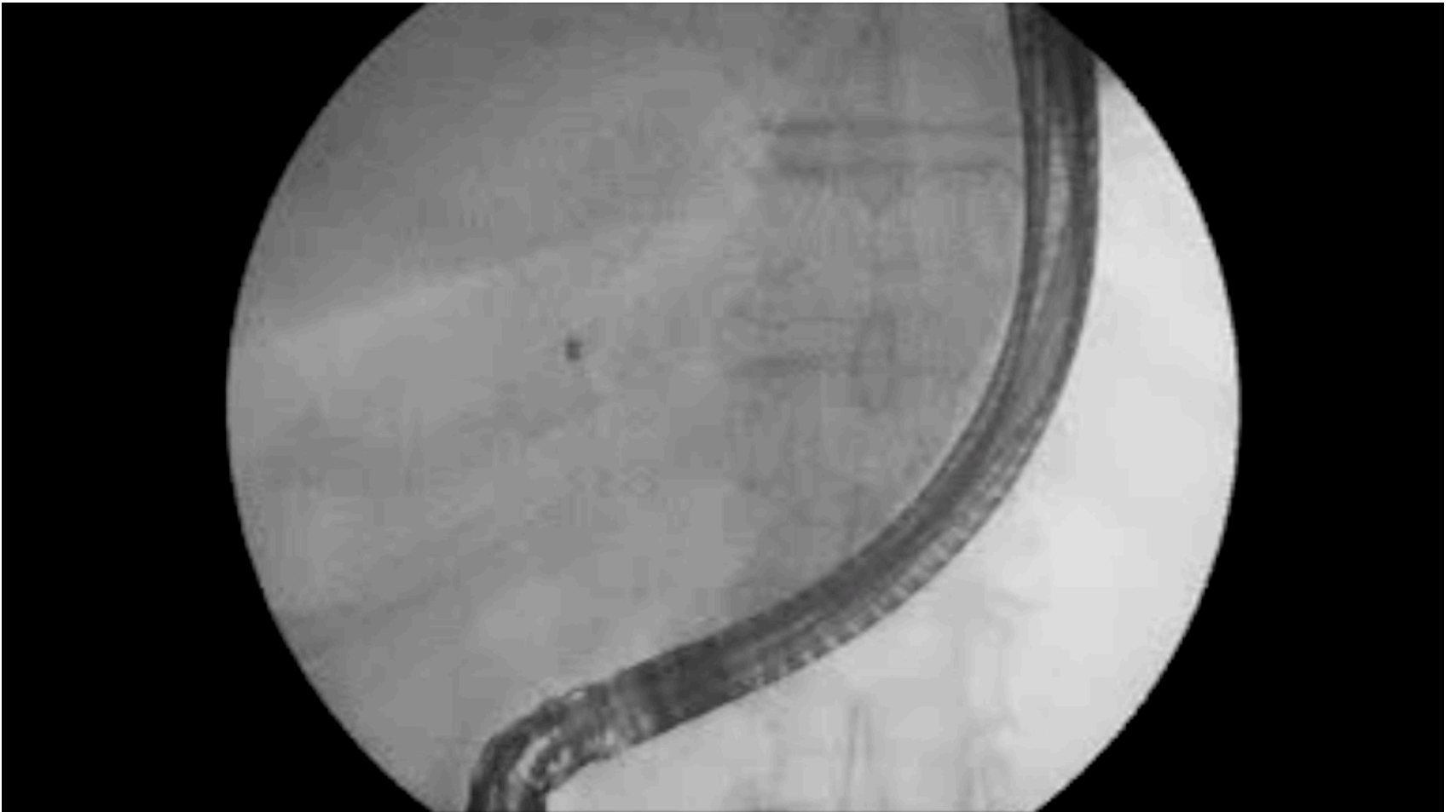
Sténose bénigne



Thrombose de la veine porte et cholangiopathie portale

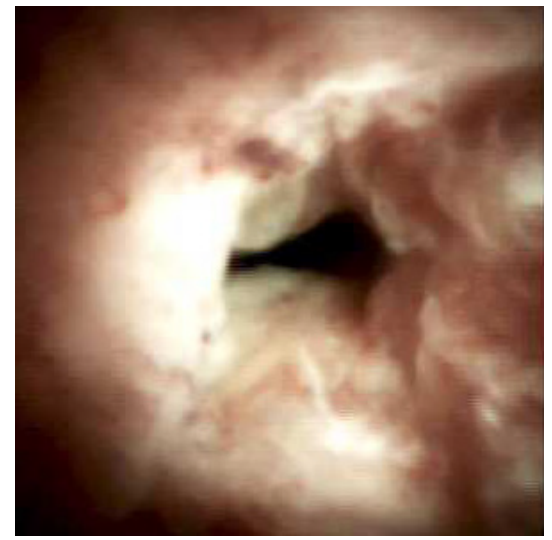
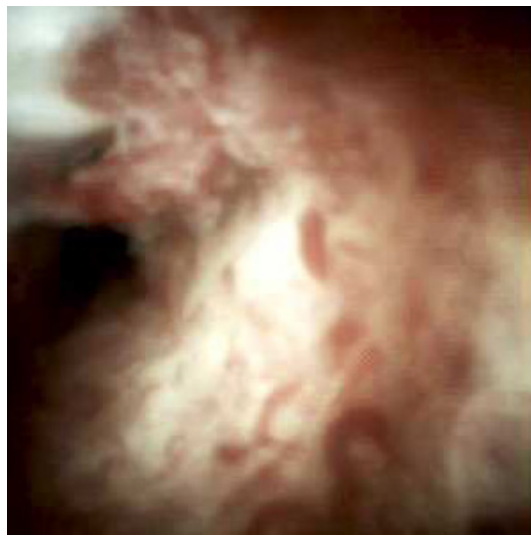


# Vidéo



# Pathologies malignes







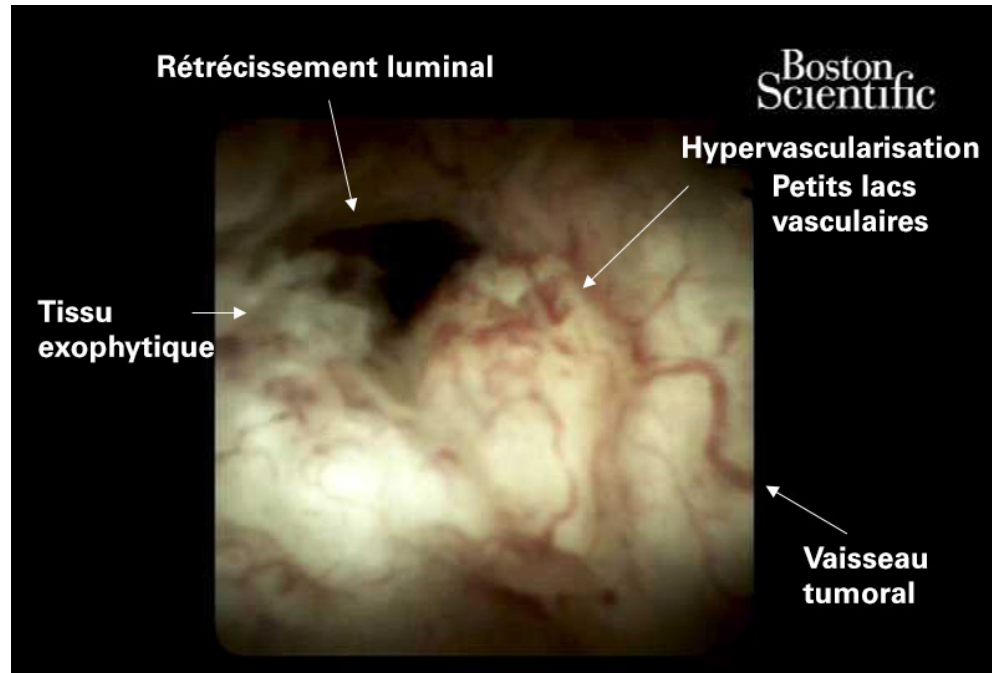
Tissu exophytique



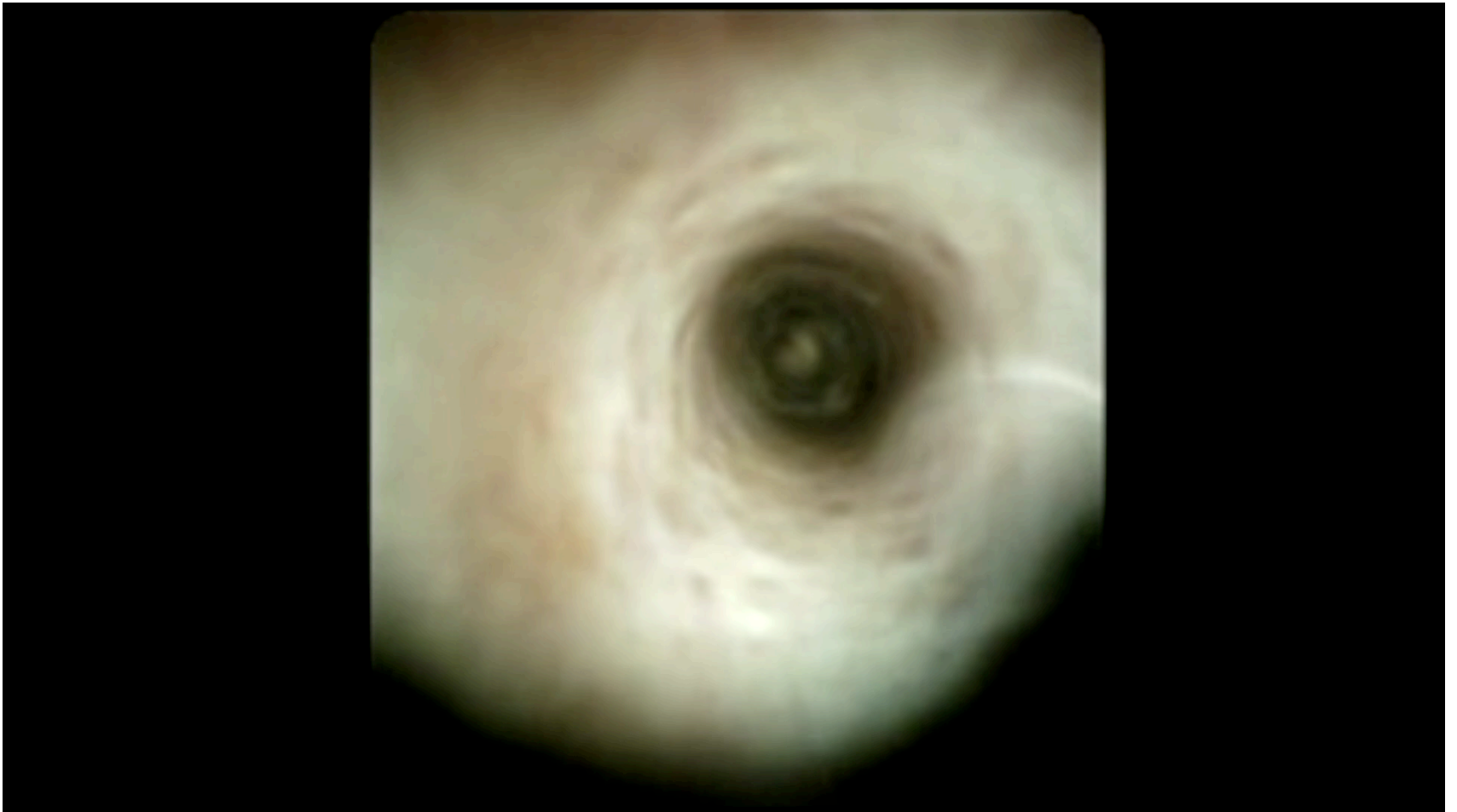
Hypervascularisation



Rétrécissement luminal



# Vidéo



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| FNA                                  | 43-86         | 97            |                              |
|                                      |               |               |                              |
| Cholangioscopie SpyBite              | 49-100        | 82-100        | 55-100                       |
| Cholangioscopie impression visuel    | 78-100        | 78-97.6       | 80-97                        |
| Cholangioscopie avec ROSE            | 100           |               | 93                           |

# Complications

|                                  | Complications | Complications plus fréquentes              |
|----------------------------------|---------------|--|
| Ogura et al. (2017)              | 6%            | Cholangite                                 |
| Imanishi et al. (2017)           | 4%            | NR   |
| Shah et al. (2017)               | 3%            | NR   |
| Lenze et al. (2018)              | 25%           | Douleur abdominal                          |
| Brewster Gutierrez et al. (2018) | 3.7%          | Cholangite<br>Douleur abdominal            |
| Barakat et al. (2018)            | 7.5%          | Pancréatite                                |
| Turowski et al. (2018)           | 13.2%         | Cholangite<br>1% avec ATB<br>2.8% sans ATB |

# Digital Pancreaticocholangioscopy for Mapping of Pancreaticobiliary Neoplasia

## *Can We Alter the Surgical Resection Margin?*

*Amy Tyberg, MD,\* Isaac Raijman, MD,† Ali Siddiqui, MD,‡  
Urban Arnelo, MD,§ Douglas G. Adler, MD,|| Ming-ming Xu, MD,\*  
Najib Nassani, MD,¶ Divyesh V. Sejjal, MD,# Prashant Kedia, MD,\*\*  
Yun Nah Lee, MD,†† Frank G. Gress, MD,‡‡ Sammy Ho, MD,§§  
Monica Gaidhane, MD,\* and Michel Kahaleh, MD\**

**TABLE 1.** Digital Pancreaticocholangioscopy for Mapping of Pancreaticobiliary Neoplasia: Altering the Surgical Resection Margin

| Clinical Outcomes  | n (%)/n/N (%)                    |  |  |
|--|----------------------------------|--|--|
|  | Pancreatoscopy Group<br>(N = 13) | Cholangioscopy Group<br>(N = 105)                                  | Overall (N = 118)  |
| Endoscopic technical success   | 13 (100)                         | 105 (100)  | 118 (100)  |
| Surgical technical success   | 13/13 (100)                      | 69/69 (100)<br>36 did not ultimately undergo<br>surgical resection | 82/82 (100)<br>36 did not ultimately undergo<br>surgical resection |
| Endoscopic mapping<br>changed the surgical plan                        | 8 (62)                           | 32 (30)  | 40 (34%)   |
| Avoidance of surgery   | 0                                | 26 (25)  | 26 (22)  |
| Less extensive surgery   | 4 (31)                           | 6 (5)  | 9 (8)  |
| More extensive surgery   | 4 (31)                           | 0  | 4 (3)  |
| Positive surgical margins after<br>endoscopic mapping changed the plan | 2/8 (25)                         | 2/32 (9)   | 5/40 (12.5)  |
| Overall correlation between surgical and<br>endoscopic histology       | 13/13 (100)                      | 59/69 (86)   | 72/82 (88)   |
| Adverse events   | 0                                | 3 (3)<br>Post-ERCP pancreatitis, managed<br>conservatively         | 3 (3)  |



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