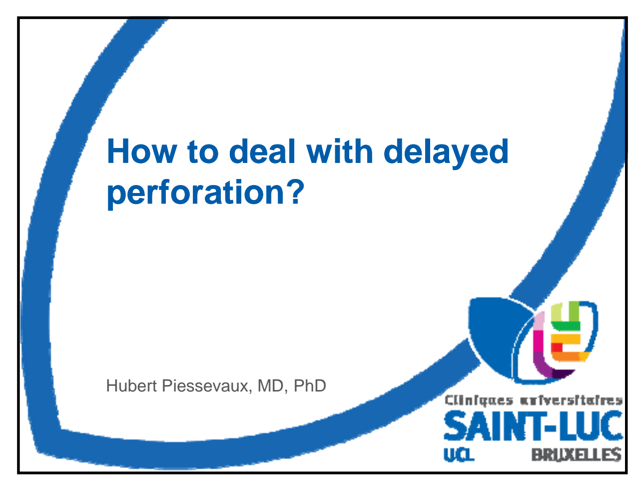
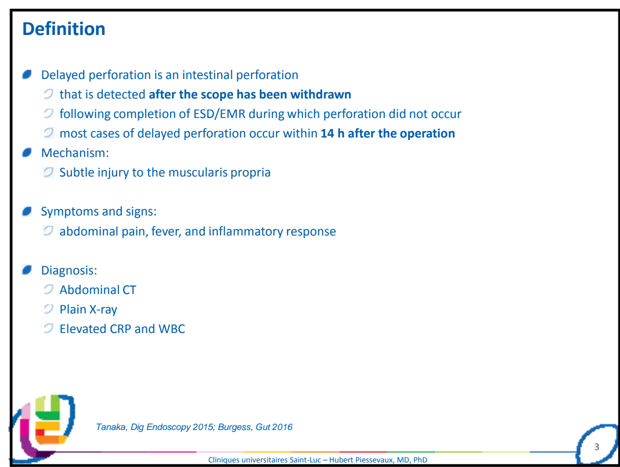




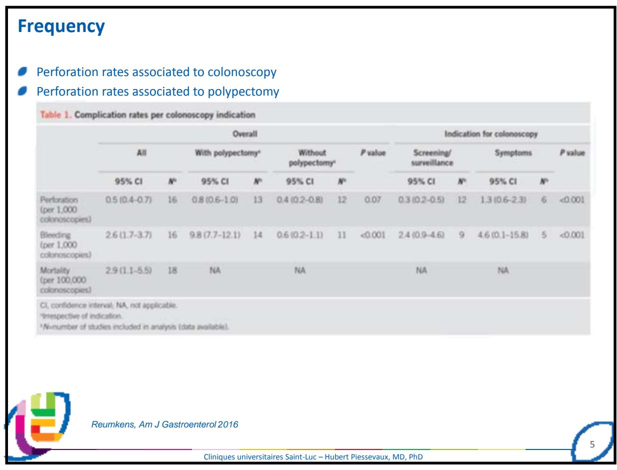
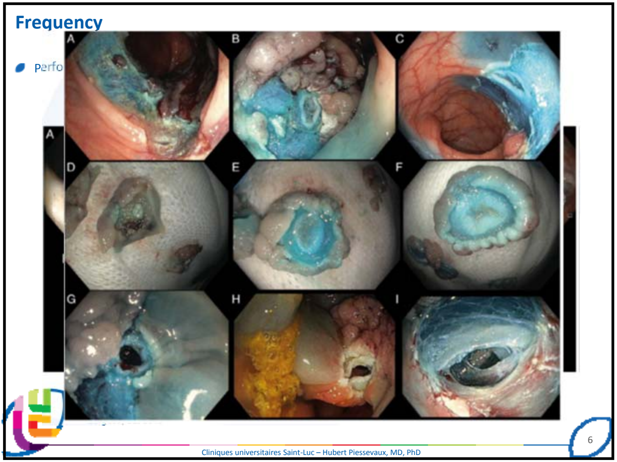


Table 1. Complication rates per colonoscopy indication

	Overall							Indication for colonoscopy				
	All		With polypectomy[a]		Without polypectomy[a]		P value	Screening/ surveillance		Symptoms		P value
	95% CI	N[b]	95% CI	N[b]	95% CI	N[b]		95% CI	N[b]	95% CI	N[b]	
Perforation (per 1,000 colonoscopies)	0.5 (0.4–0.7)	16	0.8 (0.6–1.0)	13	0.4 (0.2–0.8)	12	0.07	0.3 (0.2–0.5)	12	1.3 (0.6–2.3)	6	<0.001
Bleeding (per 1,000 colonoscopies)	2.6 (1.7–3.7)	16	9.8 (7.7–12.1)	14	0.6 (0.2–1.1)	11	<0.001	2.4 (0.9–4.6)	9	4.6 (0.1–15.8)	5	<0.001
Mortality (per 100,000 colonoscopies)	2.9 (1.1–5.5)	18	NA		NA			NA		NA		

CI, confidence interval; NA, not applicable.
[a]Irrespective of indication.
[b]N=number of studies included in analysis (data available).



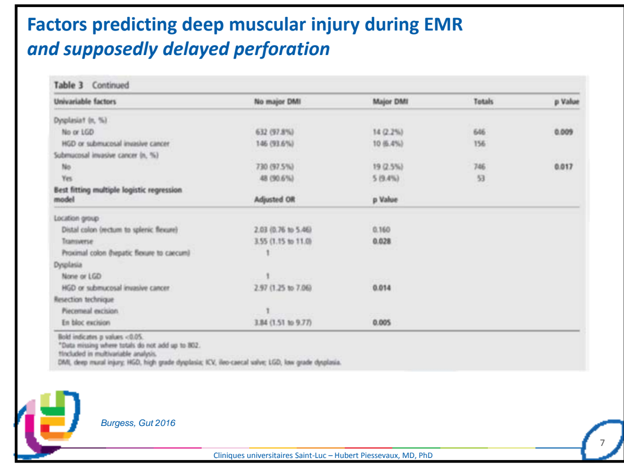
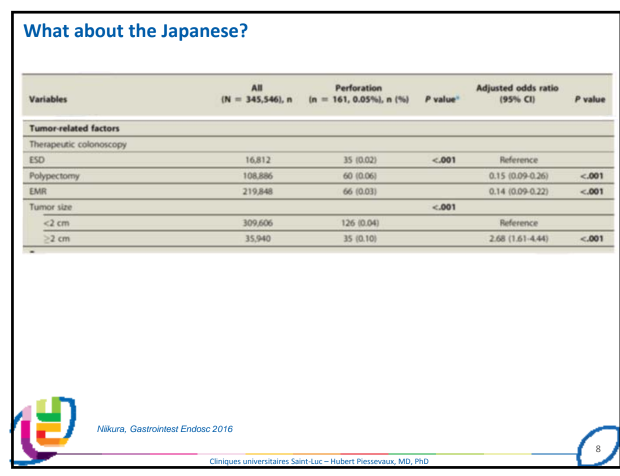


Table 3 Continued

Univariable factors	No major DMI	Major DMI	Totals	p Value
Dysplasia† (n, %)				
No or LGD	632 (97.8%)	14 (2.2%)	646	**0.009**
HGD or submucosal invasive cancer	146 (93.6%)	10 (6.4%)	156	
Submucosal invasive cancer (n, %)				
No	730 (97.5%)	19 (2.5%)	746	**0.017**
Yes	48 (90.6%)	5 (9.4%)	53	
Best fitting multiple logistic regression model	**Adjusted OR**	**p Value**		
Location group				
Distal colon (rectum to splenic flexure)	2.03 (0.76 to 5.46)	0.160		
Transverse	3.55 (1.15 to 11.0)	**0.028**		
Proximal colon (hepatic flexure to caecum)	1			
Dysplasia				
None or LGD	1			
HGD or submucosal invasive cancer	2.97 (1.25 to 7.06)	**0.014**		
Resection technique				
Piecemeal excision	1			
En bloc excision	3.84 (1.51 to 9.77)	**0.005**		

Bold indicates p values <0.05.
*Data missing where totals do not add up to 802.
†Included in multivariable analysis.
DMI, deep mural injury; HGD, high grade dysplasia; ICV, ileo-caecal valve; LGD, low grade dysplasia.



Variables	All (N = 345,546), n	Perforation (n = 161, 0.05%), n (%)	P value*	Adjusted odds ratio (95% CI)	P value
Tumor-related factors					
Therapeutic colonoscopy					
ESD	16,812	35 (0.02)	**<.001**	Reference	
Polypectomy	108,886	60 (0.06)		0.15 (0.09-0.26)	**<.001**
EMR	219,848	66 (0.03)		0.14 (0.09-0.22)	**<.001**
Tumor size			**<.001**		
<2 cm	309,606	126 (0.04)		Reference	
≥2 cm	35,940	35 (0.10)		2.68 (1.61-4.44)	**<.001**

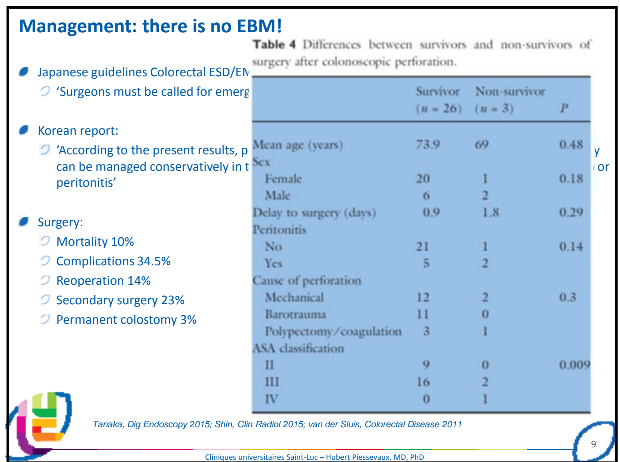


Table 4 Differences between survivors and non-survivors of surgery after colonoscopic perforation.

	Survivor (n = 26)	Non-survivor (n = 3)	P
Mean age (years)	73.9	69	0.48
Sex			
Female	20	1	0.18
Male	6	2	
Delay to surgery (days)	0.9	1.8	0.29
Peritonitis			
No	21	1	0.14
Yes	5	2	
Cause of perforation			
Mechanical	12	2	0.3
Barotrauma	11	0	
Polypectomy/coagulation	3	1	
ASA classification			
II	9	0	0.009
III	16	2	
IV	0	1