



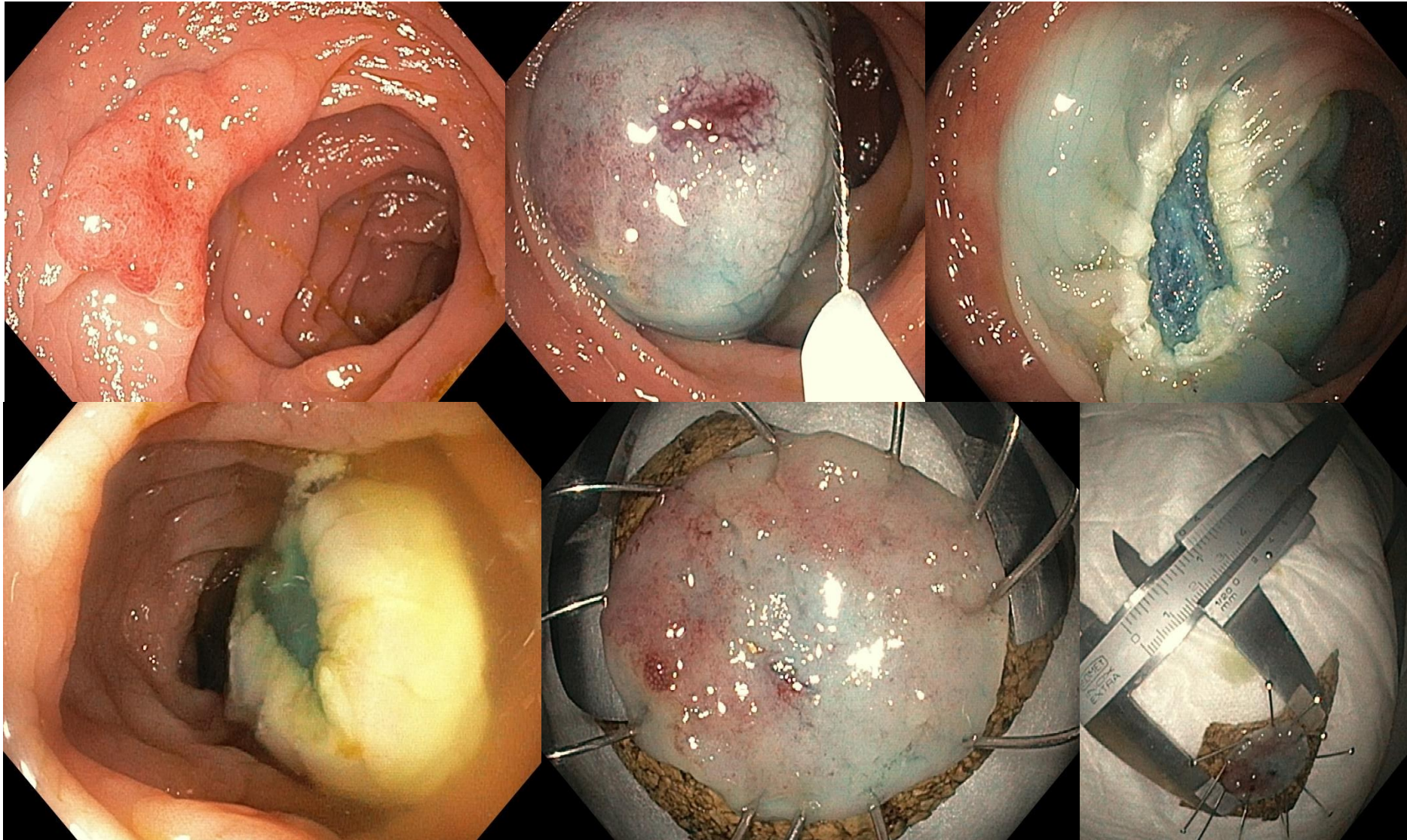
UNIVERSITAS
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Facultas Medicinae



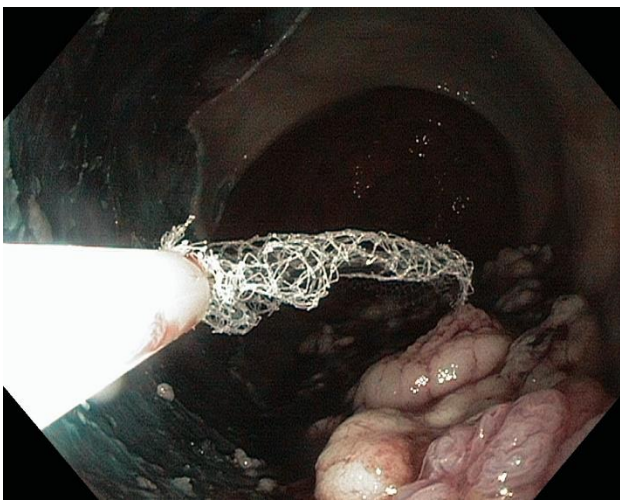
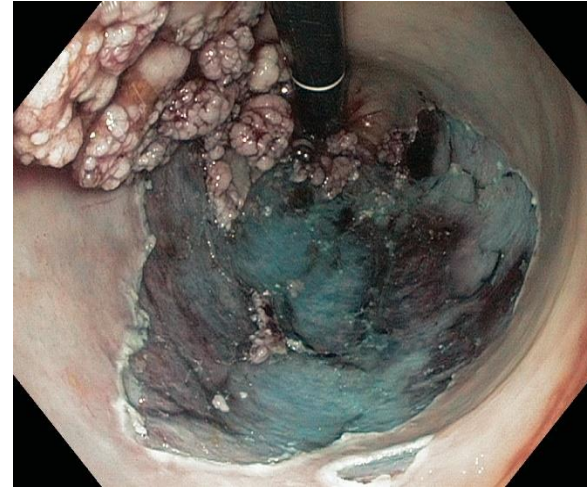
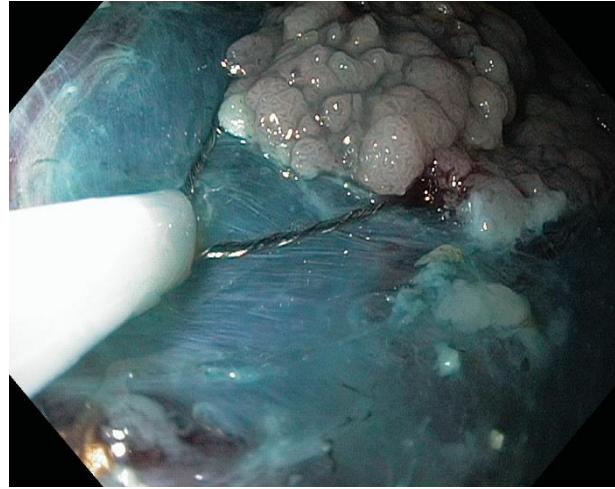
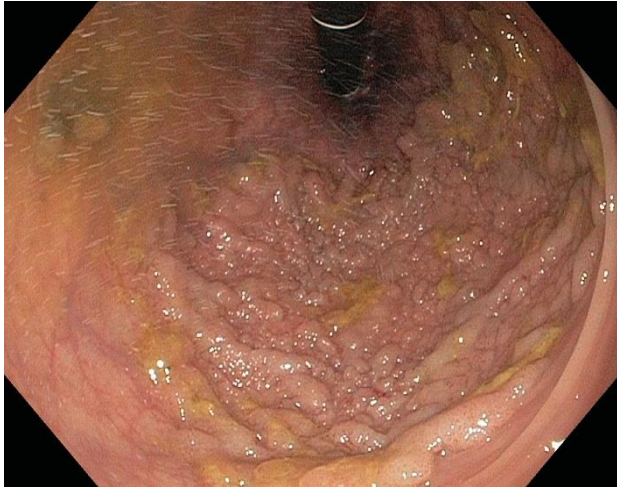
Limity endoskopické slizniční resekce v colon a rektu

O. Urban
Vítkovická nemocnice Ostrava
LF OU v Ostravě

EMR lift and cut en bloc



EMR lift and cut piecemeal



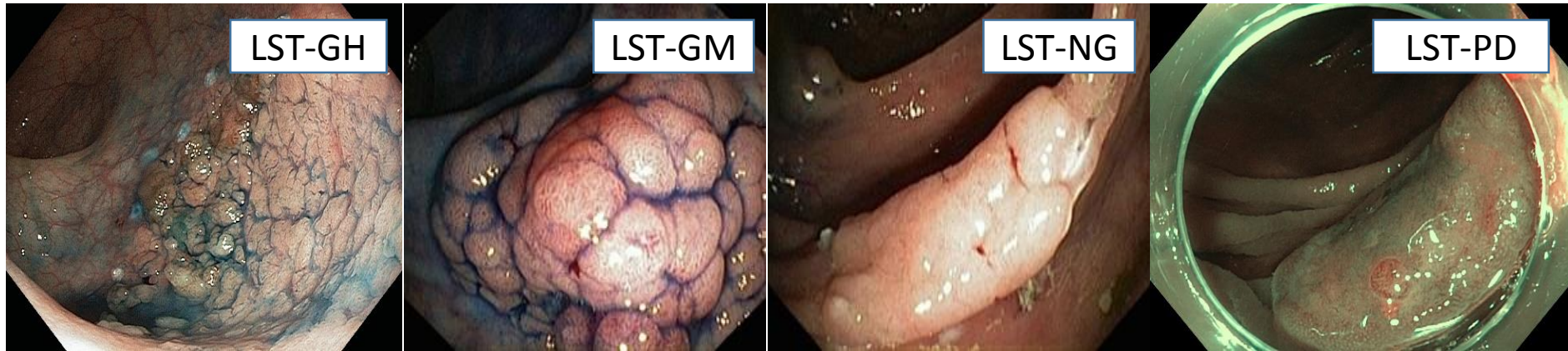
10 limitací kolorektální EMR

1. Velikost
2. Morfologie
3. Hloubka invaze
4. Nekurativní resekce
5. Fibróza
6. Lokální residuální neoplázie
7. Late recurrent neoplasia
8. Non-compliance při follow-up
9. Komplikace (perforace, krvácení)
10. Suboptimální trénink

Limit č.1: Velikost léze

- V univariační analýze je velikost rizikovým faktorem pro lokální reziduální neoplázii
- Vztah mezi větší velikostí a *piecemeal* resekcí
- MA :
 - 10-20mm(18%), 20-30mm(19%), > 30mm 19% ($P=0.88$)
 - > 20mm, en bloc (3%), EPMR 22% ($P < 0.001$)

Limit č. 2: Morfologie



%n	23%	38%	24%	15%
SM	0.7%	18.5%	7.9%	44.8%
Fibrosis	0	+	+++	+++
Therapy	EPMR	EPMR (ESD)	ESD	ESD

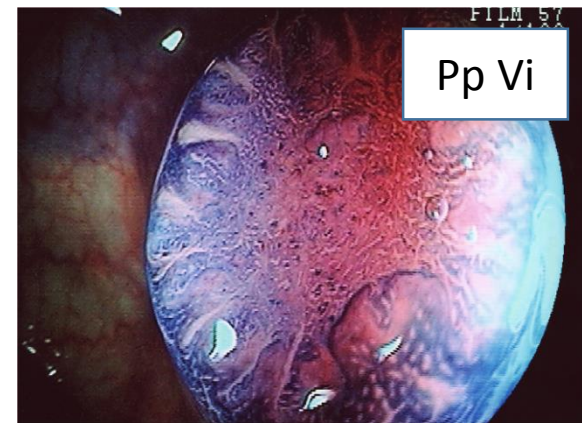
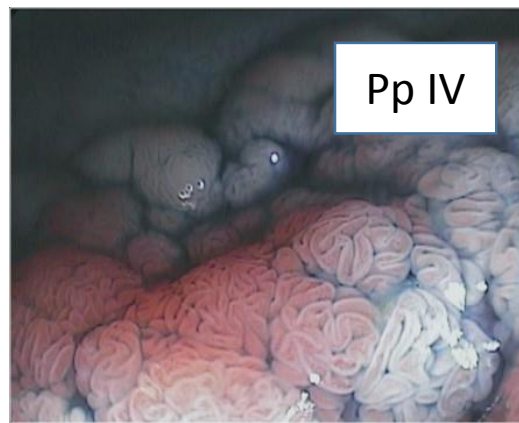
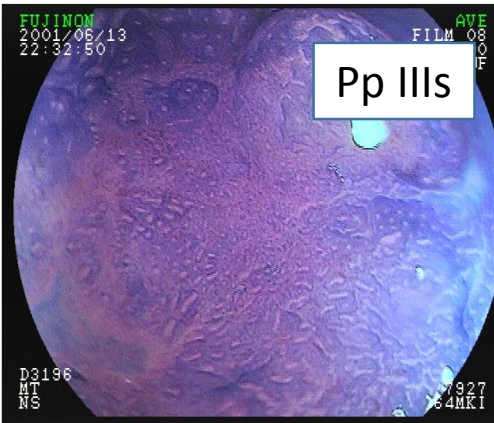
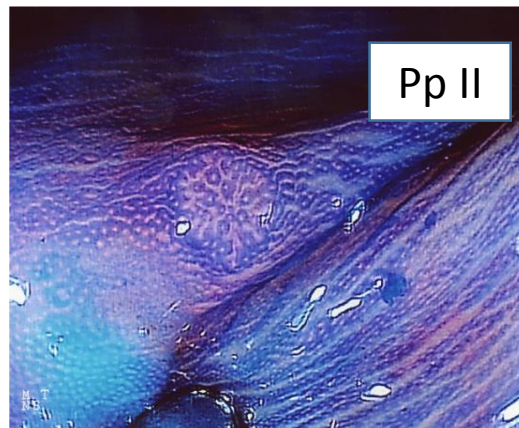
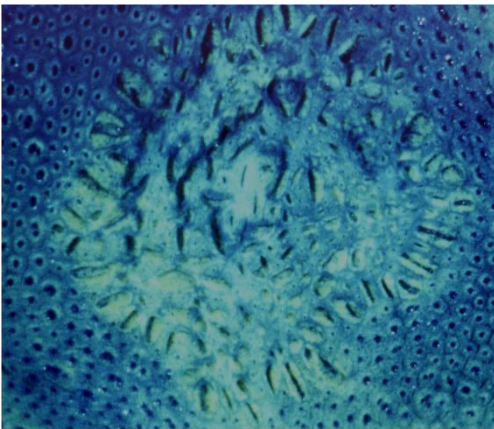
Kudo et.al. GIE 2008,68(4): 43-47

Kim et al. Endoscopy 2011, 43(2): 100-107

Limit č. 3: Hloubka invaze

<i>Autor</i>	<i>n</i>	<i>sm1</i>	<i>sm2</i>	<i>sm3</i>
Tanaka	65	4.3 %	11.9%	
Kobayashi	129	0%	-	19.6%
Kikuchi	182	0%	4.9%	25%
Nascimbeni	344	3%	8%	23%
Vieth	208	5.5%	8.5%	19.1%

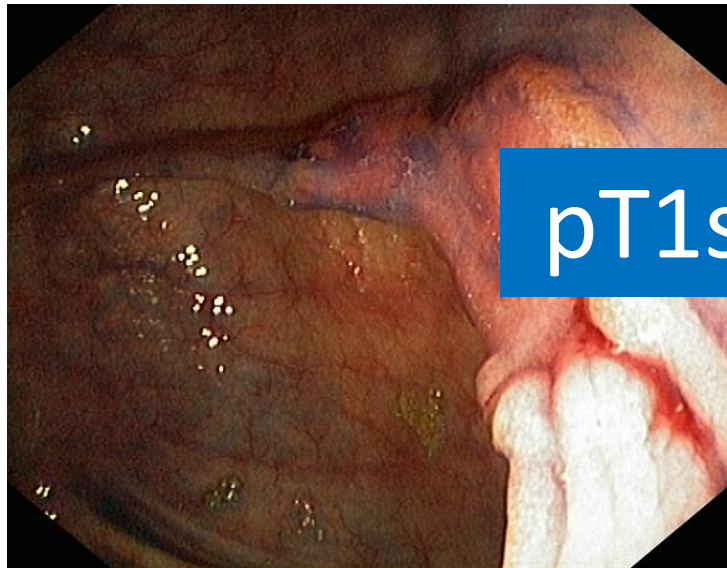
Zvětšující chromoendoskopie



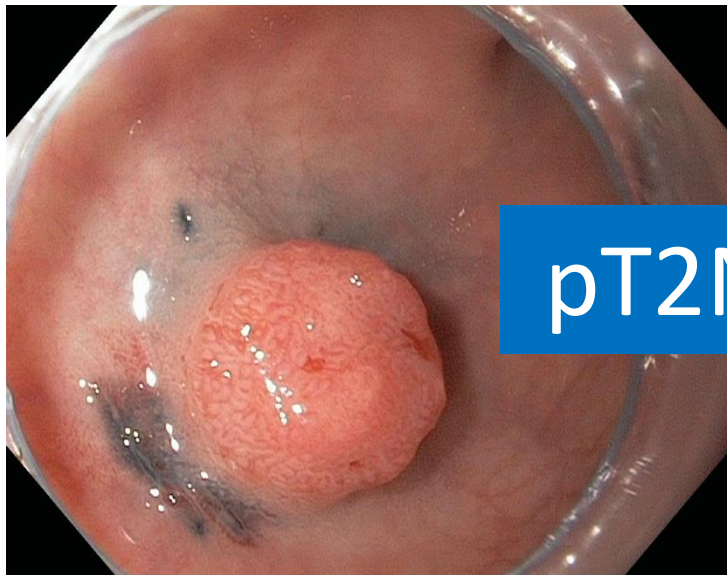
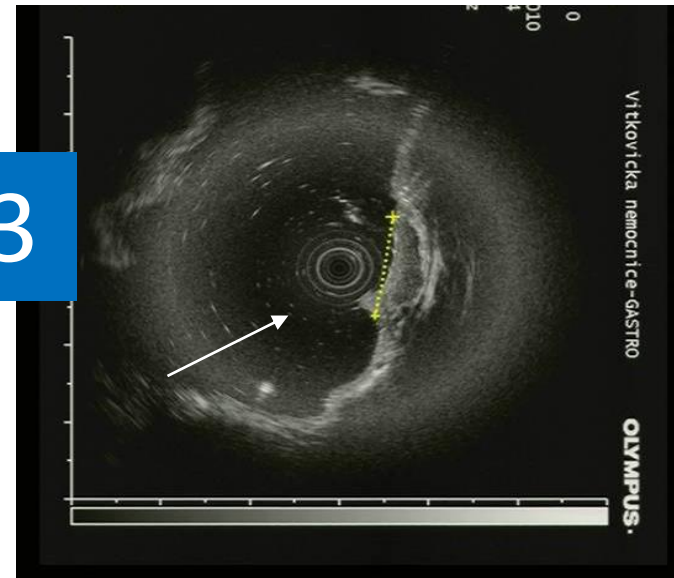
Pit pattern ve vztahu histologii

Pit pattern	LGD	HGD	SM carcinoma	Σ
IIIL	2714 (83,3%)	546 (16,7%)	0	3260
IV	400(51,1%)	364 (46,5%)	19	783
III _s	29 (55,5%)	22(42,3%)	1	52
Vi	35	165 (59,1%)	79(28,3%)	279
Vn	0	8(9,9%)	73(90,1%)	81
Σ	3178	1105	172	4455

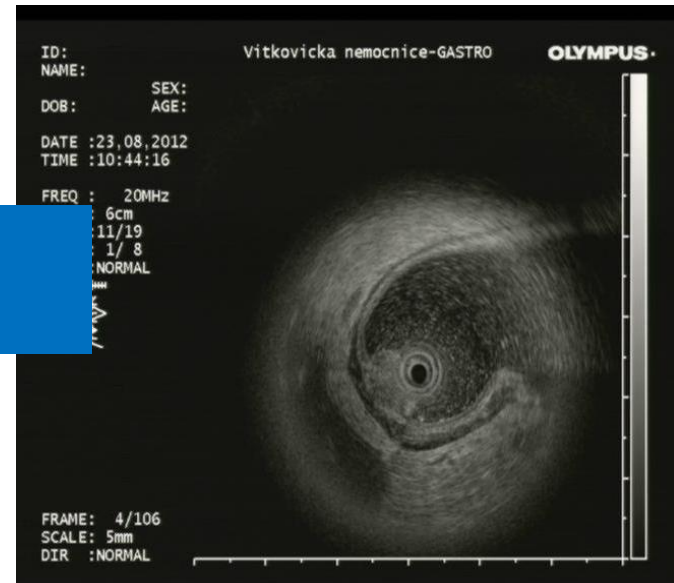
High frequency ultrasound probe staging(20 MHz)



pT1sm3

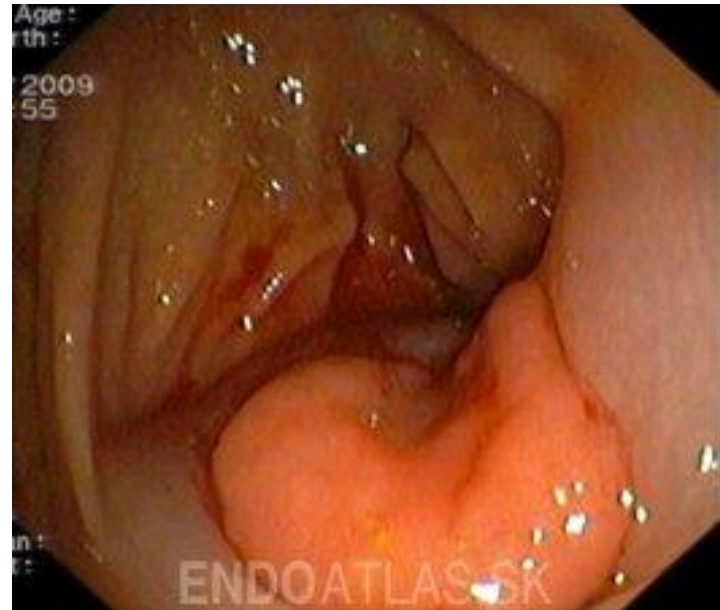
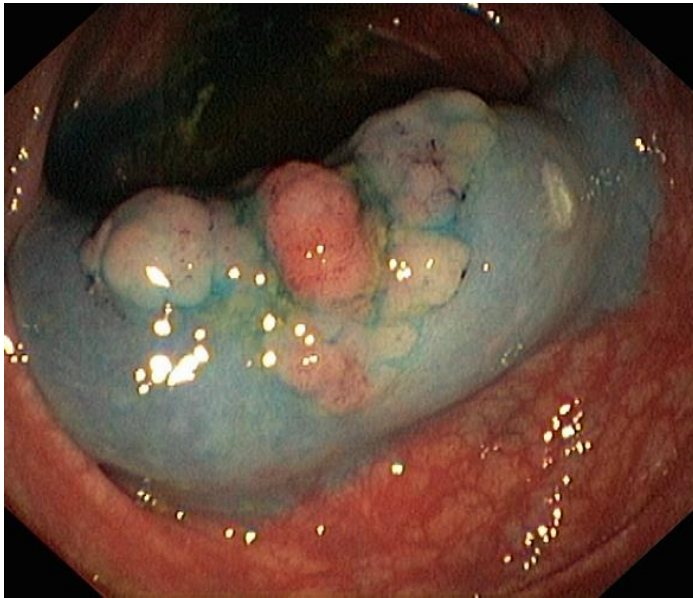


pT2N1



Non-lifting

SM 3 a/nebo fibrosa



Limit č. 4: Nekurativní resekce

Low-risk

Negative vertical resection line

Depth of sm invasion \leq 1000 μ m

Grade G1/2

Absence of lymphatic or vascular invasion

Absence of gr. 2 or 3 budding

High-risk

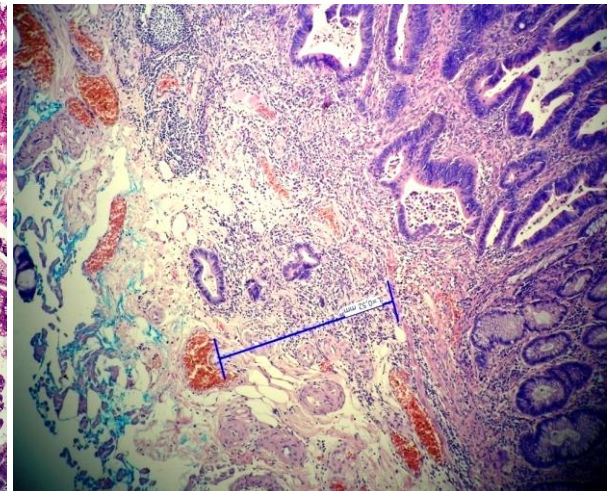
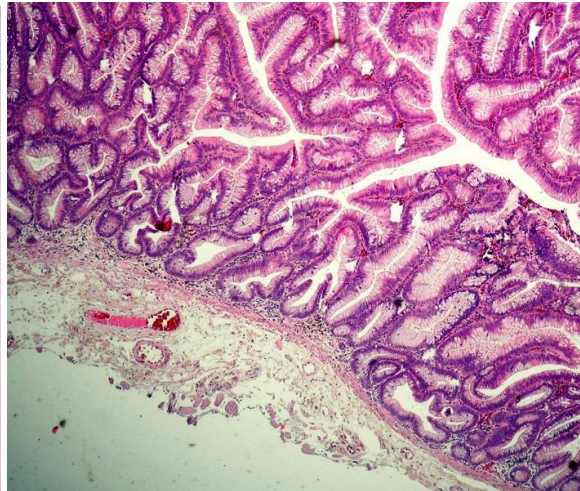
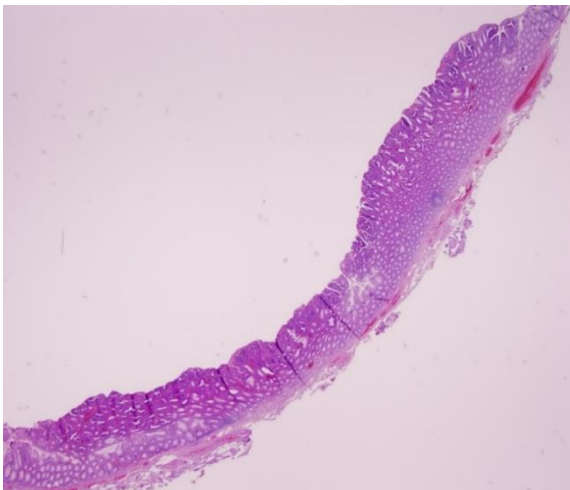
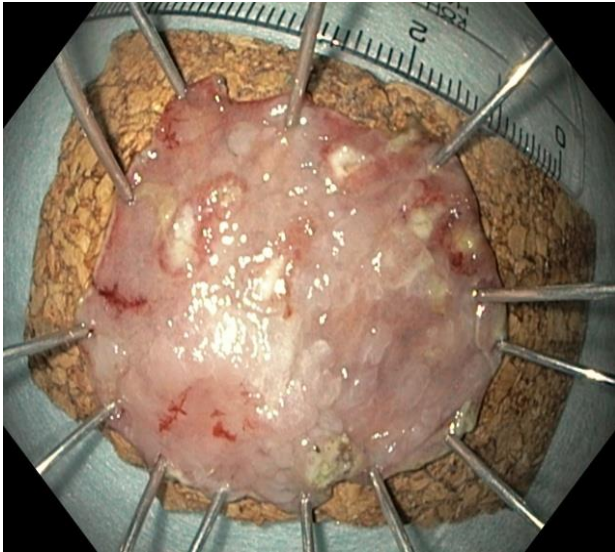
Positive for any of above

Early (T1) colorectal cancer

Retrospective, 6 centers, n=209, mean FU 61 months

	Colon n= 573		Rectum n= 214	
	Reccurence (%)	5yrs dis.free surv. (%)	Reccurence (%)	5yrs dis. free surv. (%)
Low risk Only ER	0	96	6,3	90
High risk Only ER	1,4	96	16,2	77
High risk + surgery	1,9%	97	4,5	95

Diagnostika hloubky invaze



Limit č. 5: Fibróza

F0

No fibrosis, blue transparent layer

F1

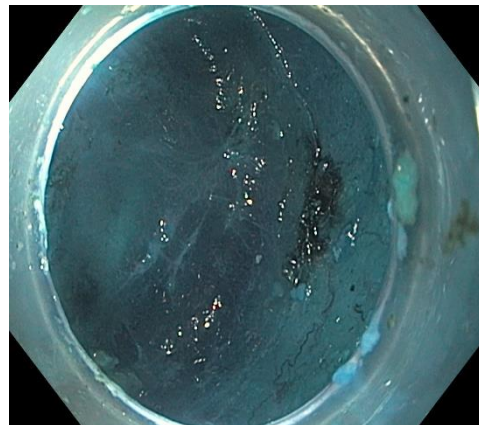
Mild fibrosis, white web-like structure in the blue SM layer

F2

Severe fibrosis, no blue layer

Risk of perforation (ESD)

- Sm invasion
- Size > 30mm



Limit č. 6: Lokální reziduální neoplázie

- Přítomnost neoplastické tkáně v biopsii z místa po EMR.
- Výskyt udáván v 15 (5-55)%
- *Piecemeal* resekce je hlavní rizikový faktor

Lokální reziduální neoplázie

Metaanalysis of 33 studies

Mean recurrence risk 15% (95%CI 12-19%)

En bloc 3%, Piecemeal 20%

6month follow-up interval after EMR recommended

LRN after 15months 20.3%,

Size \geq 20 mm, OR 5.8 (1.199-28.425), $P=0.029$

En bloc 14% Piecemeal 24%

Belderbos G.E. et al., Local recurrence after endoscopic mucosal resection...Endoscopy 2014, 46: 388-400

Urban O. et al., Local residual neoplasia after endoscopic treatment of laterally spreading tumors during 15 months of follow-up. Eur J Gastroenterol Hepatol 2013(25),6: 733-738.

Mýty o LRN:

Lze ji vždy diagnostikovat při první kolposkopické kontrole

Late reccurrent neoplasia

Je prognosticky nevýznamná

2.4-26% intervalových karcinomů vzniká v segmentu předchozí polypektomie

Lze ji vždy odstranit pomocí APC

Efektivita ve 32-89%

Limit č. 7: Late recurrent neoplasia

V místě po EMR, které bylo endoskopicky a histologicky bez LRN při nejméně jedné koloskopii

MA 15 studies 152/173 (88%) early vs. 21(12%) late

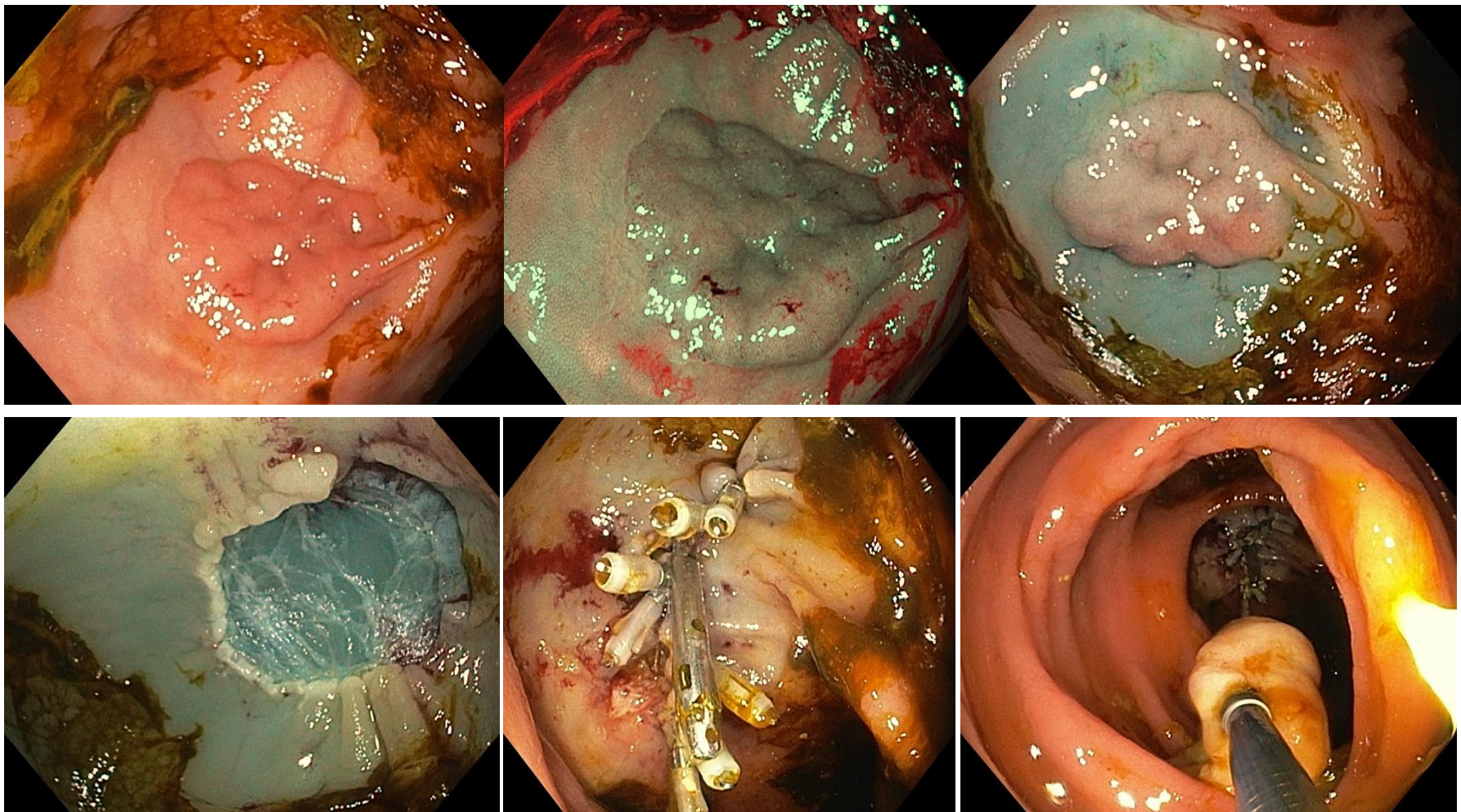
7/62 (11.3%)

Belderbos G.E. et al., Local recurrence after endoscopic mucosal resection...Endoscopy 2014, 46: 388-400

Urban O. et al., Local residual neoplasia after endoscopic treatment of laterally spreading tumors during 15 months of follow-up.

Eur J Gastroenterol Hepatol 2013(25),6: 733-738.

Late recurrent cancer pT1sm1



Limit č. 8: Non compliance s FU

Kdy provádět endoskopickou kontrolu ?

4 studies, 25 recurrences, FU 3-6-12 months

3 month 76%

6 months 94%

12 months 98%

Non compliance with FU 32,2%

Belderbos G.E. et al., Local recurrence after endoscopic mucosal resection...Endoscopy 2014, 46: 388-400
Urban O. et al., Local residual neoplasia after endoscopic treatment of laterally spreading tumors during 15 months of follow-up. Eur J Gastroenterol Hepatol 2013(25),6: 733-738.

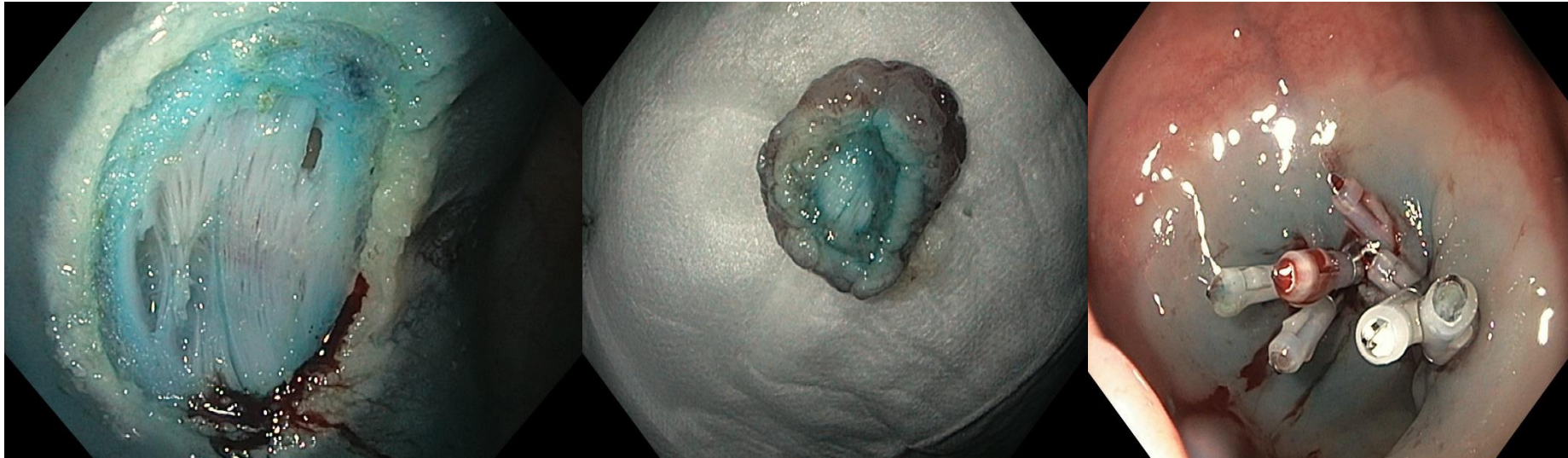
Limit č. 9: Perforace a krvácení

18 centers in Japan, 1008 EMR, 805 ESD

Size (mm)	20-29	30-39	≥40
n	926	446	441
0I /IIa /IIc	382/515/29	111/323/12	48/386/7
ESD/EMR			
n(%)	212/714 (23/77)	257/189 (58/42)	336/105 (76/24)
n(%) en bloc	202/471 (95/66)	246/84(96/44)	313/11(93/10)
Komplikace n(%)			
Perforation	3/5 (1,4/ 0,7)	7/3 (2,7/ 1,6)	8/2 (2,4/ 1,9)
Opožděné krvácení	3/9 (1,4/ 1,3)	7/3 (2,7/ 1,6)	8/2 (2,4/ 1,9)

Nakajima T et al., Endoscopy 2011, 43, A1

Target sign



Limit č. 10: Suboptimální trénink

Pokles rekurence lézí v novějších studiích

Nižší LRN v prospektivních (vs. retrospektivních) studiích

Závěr

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