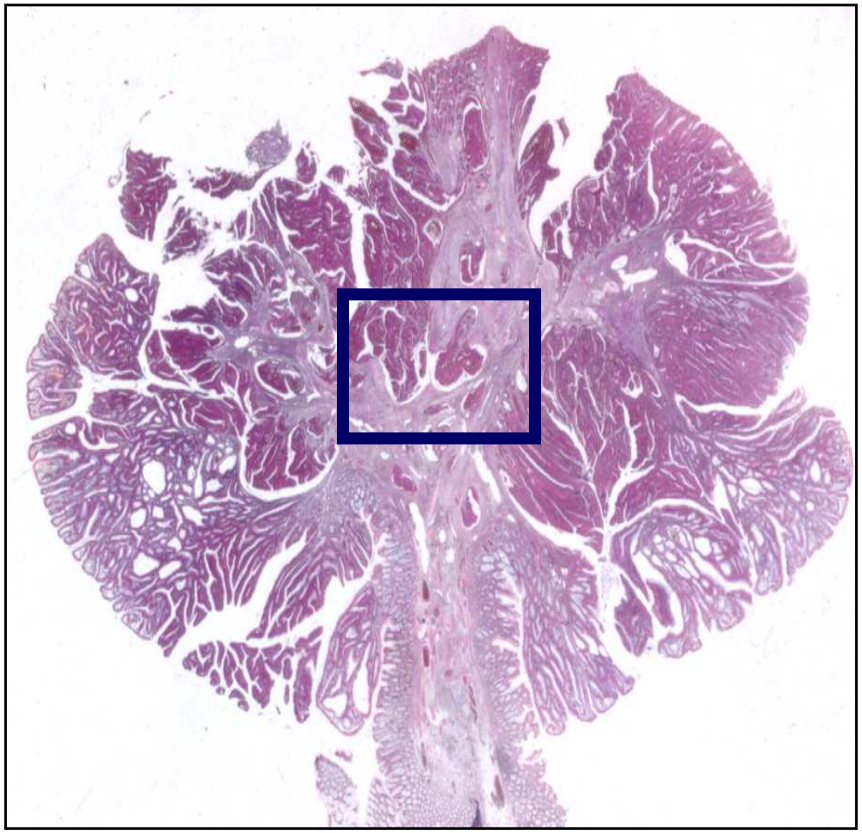
Cancerized Adenomas: The Metastatic Risk (8-16%)



Histologic Features Distinguishing

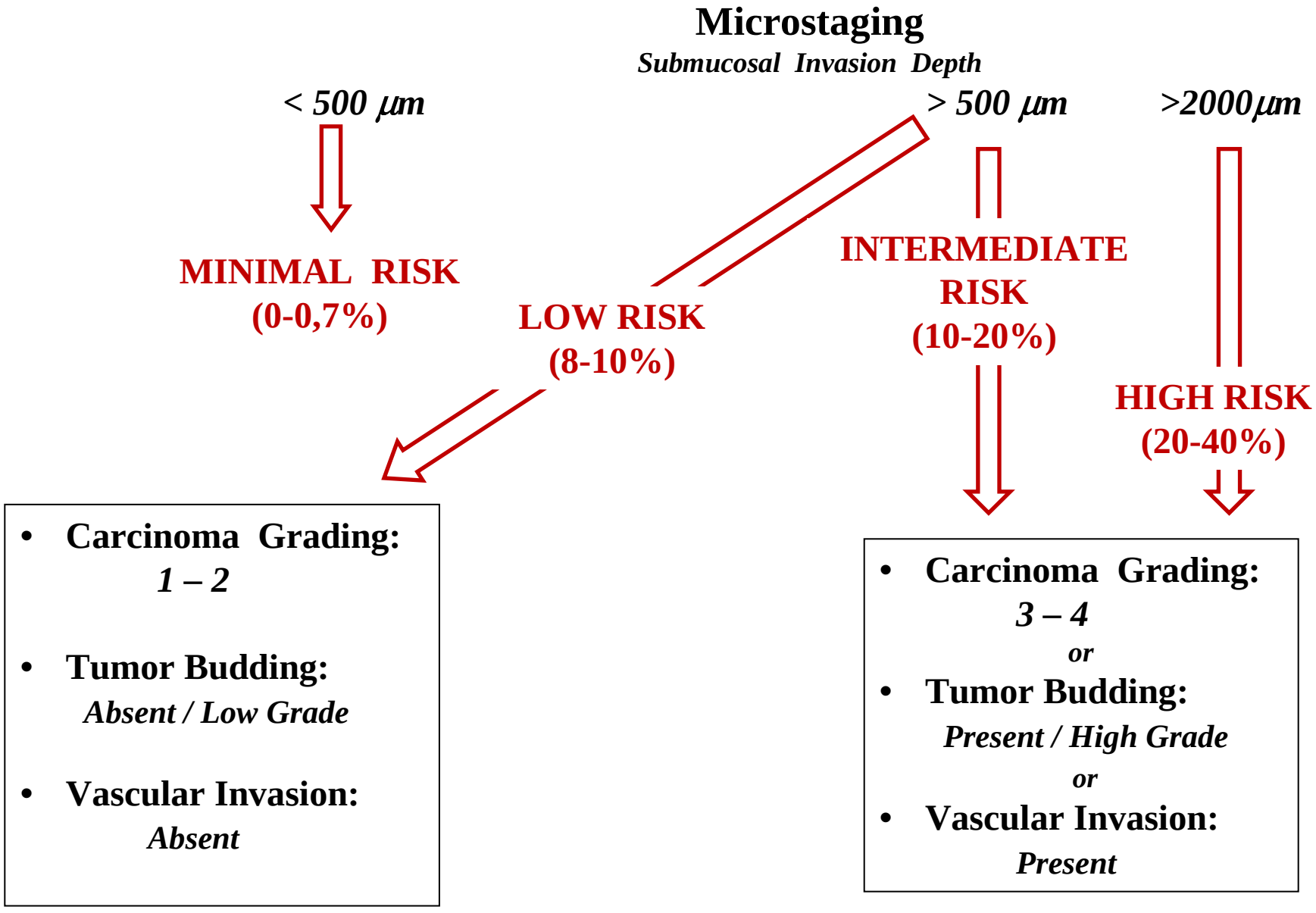
LOW (7 %)
and
HIGH (35 %)

Risk of Lymph Node Metastasis

- **GRADE OF DIFFERENTIATION OF INVASIVE CARCINOMA (G1-G2, Low Grade vs G3-G4, High Grade)**
- **VASCULAR INVASION**
- **RESECTION MARGIN**

[Coverlizza, Risio, Fenoglio-Preiser, Cancer 1989]

CANCERISED ADENOMA :
Assessment of the Metastatic Risk

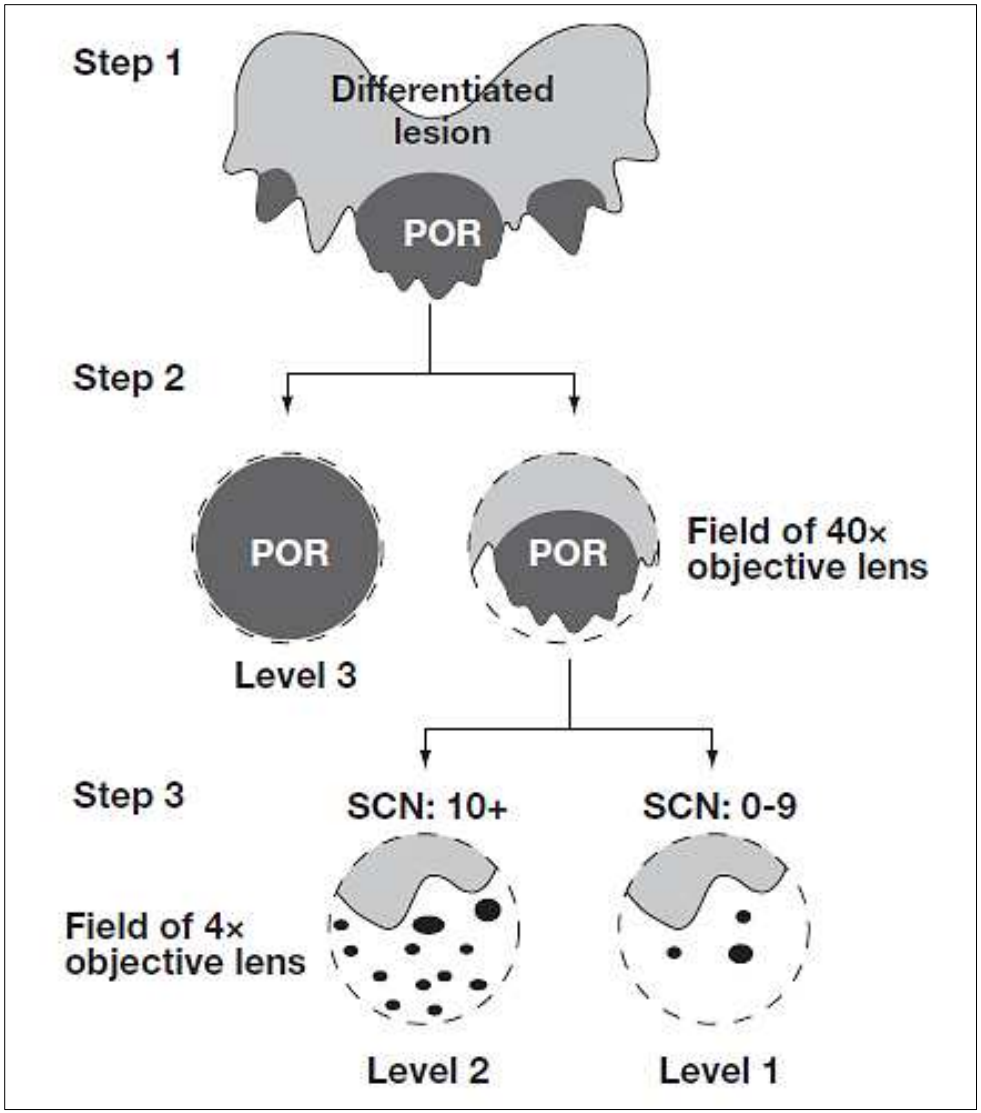


Cancerised Adenoma: Tumor Grade

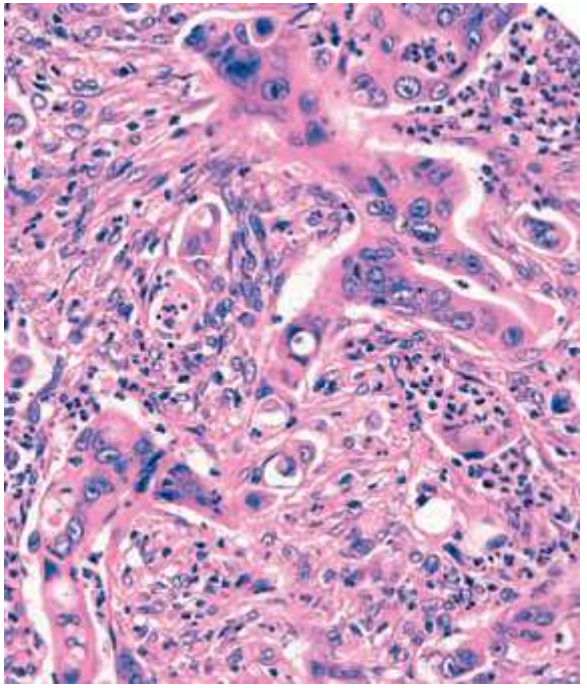
Study	No. of T1 CRC Cases Analyzed*	Incidence of Grade 3, Poorly Differentiated, % (No. of Cases)
Yamamoto et al,[41] 2004	301	0.1 (4)
Tominaga et al,[42] 2005	155	1.3 (2)
Kurokawa et al,[43] 2005	180	1.1 (2)
Whitlow et al,[44] 1997	59	1.7 (1)
Haggitt et al,[4] 1985	64	3.1 (2)
Geraghty et al,[9] 1991	81	2.5 (2)
Suzuki et al,[45] 2003	65	3.1 (2)
Sakuragi et al,[30] 2003	278	2.5 (7)
Seitz et al,[46] 2004	116	3.4 (4)
Wang et al,[28] 2005	159	4.4 (7)
Morson et al,[47] 1984	61	5 (3)
Cooper et al,[11] 1995	140	5.7 (8)
Netzer et al,[12] 1998	62	8.1 (5)
Hackelsberger et al,[48] 1995	87	11.5 (10)
Hassan et al,[27] 2005	380	14.7 (56)
Nascimbeni et al,[29] 2002	344	34.0 (117)
Nascimbeni et al,[49] 2004	144	39.6 (57)

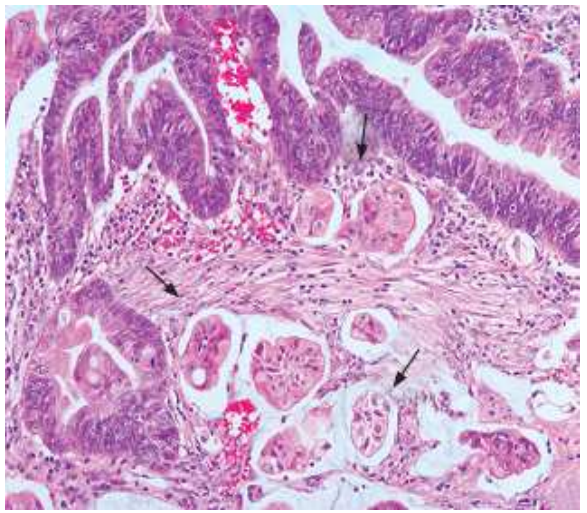
[Ueno et al, 2010]

Cancerised Adenoma:
Poorly Differentiated Component and Dedifferentiation

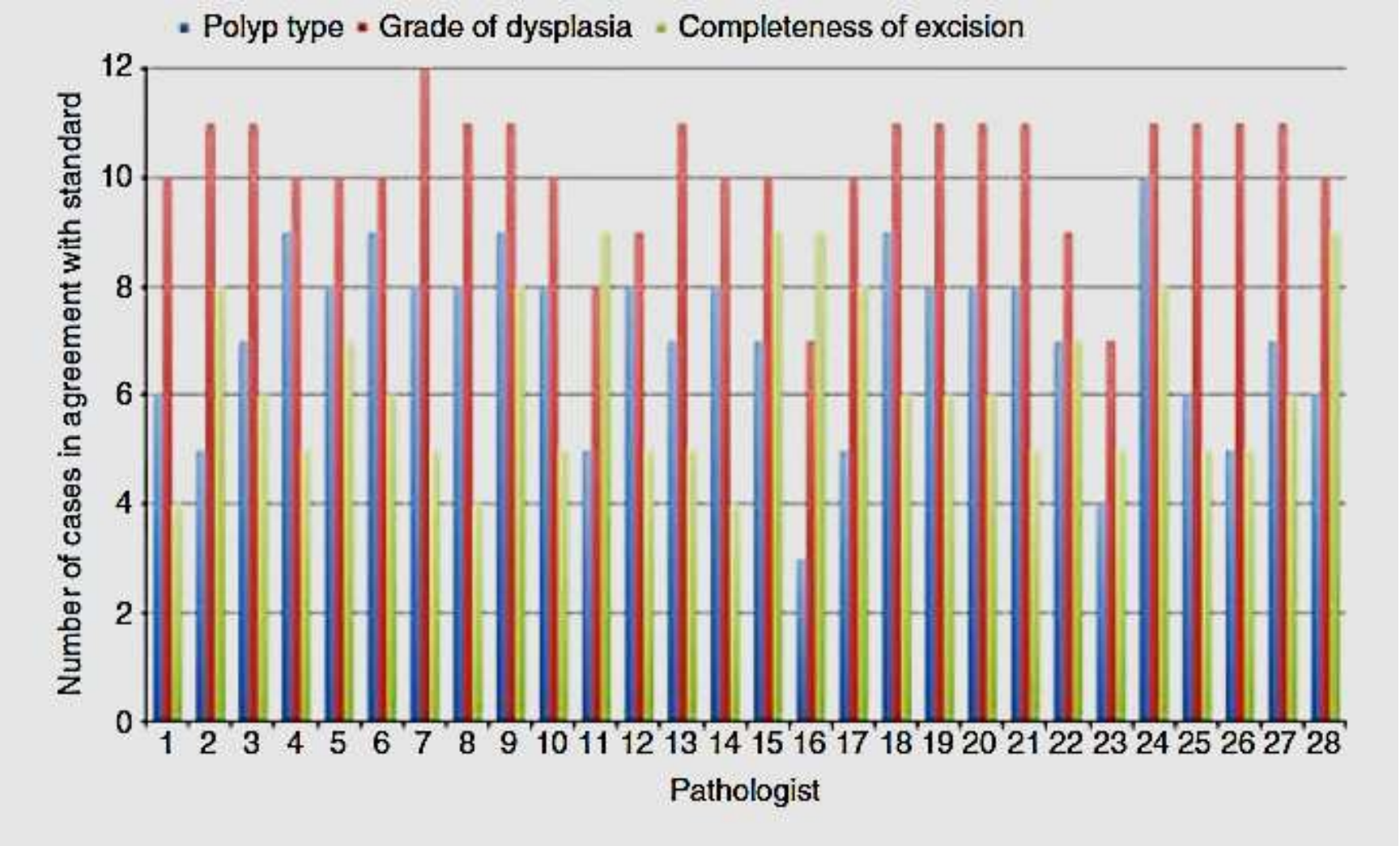


[Ueno et al, 2010]





Defining the R0 Endoscopic Removal



K statistics: 0.24 **95% CI 0.007 – 0.43**

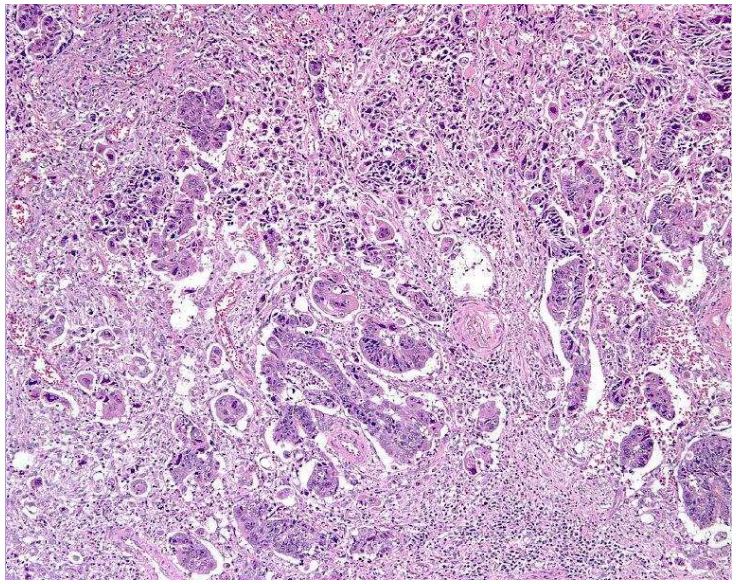
[Turner et al, 2013]

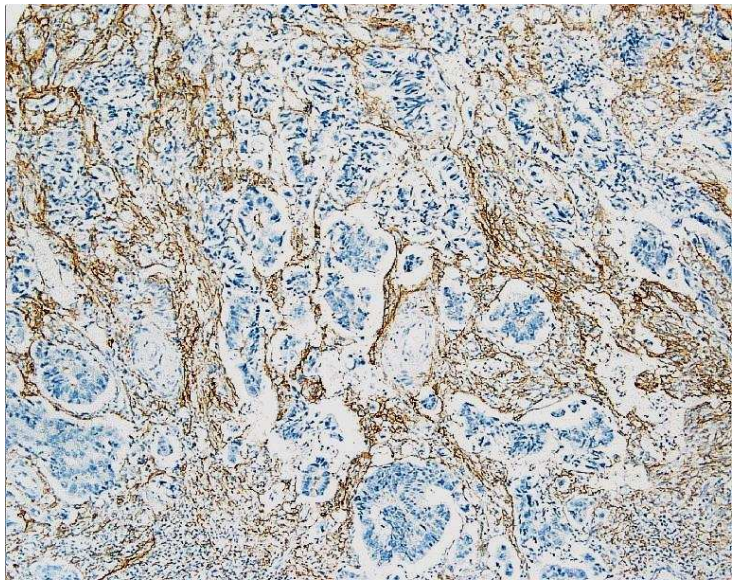
Cancerised Adenoma: Lymphovascular Invasion

It is NOT an independent risk factor at multivariate analysis
(Netzer et al., 1998; Masaki and Muto, 2000)

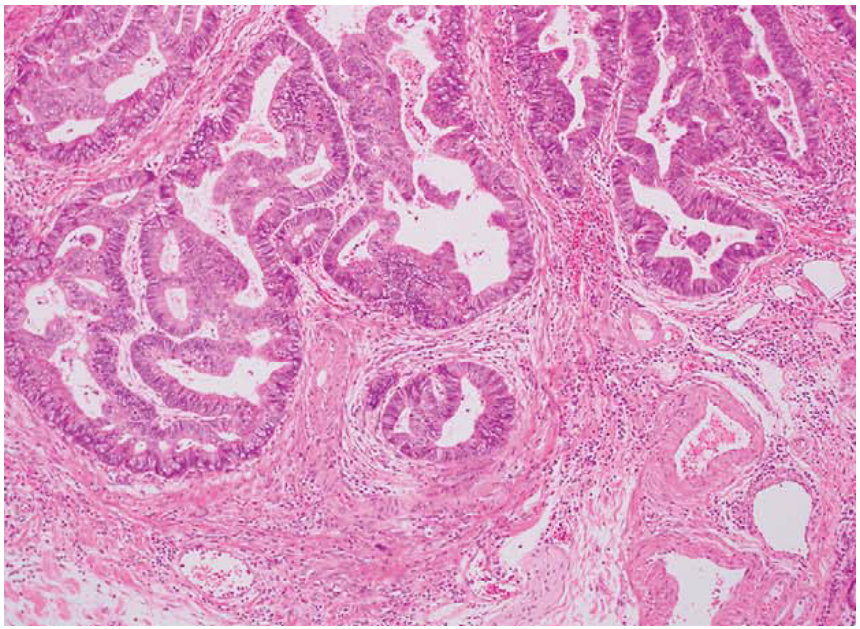
NO differences in clinical outcomes were found pooling low-risk pT1 carcinomas with those with only vascular invasion
(Hassan et al., 2005)

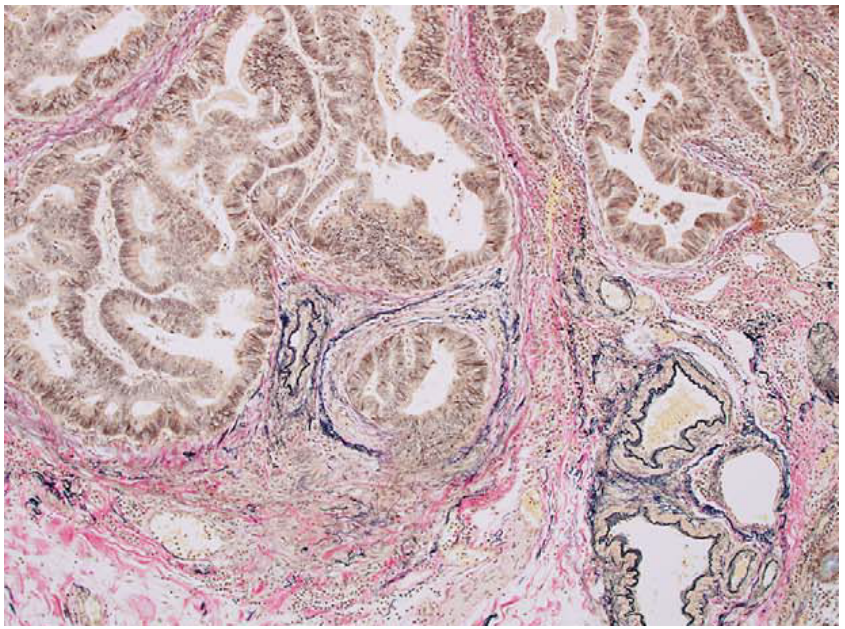
It has been demonstrated that definite vascular invasion without other unfavorable pathologic features is associated with an adverse outcome
(Ueno et al, 2004)





Cancerised Adenoma:
Vascular Invasion and Distant Metastases

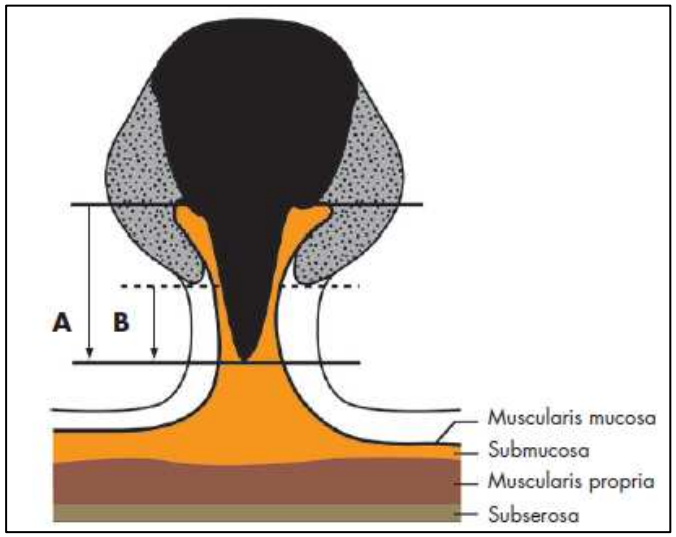




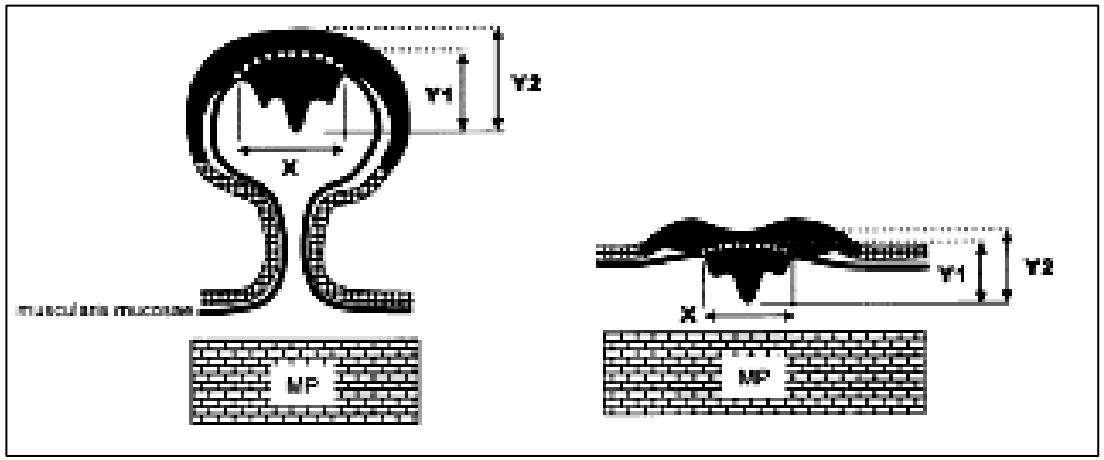
Factor	Stain	Presence (%)	OR (95% CI)	*P*
LC invasion	HE	39.5	1.6 (0.3-8.0)	0.56
	D2-40	32.3	2.4 (0.5-11.8)	0.29
Venous invasion	HE	17.7	2.3 (0.4-12.5)	0.34
	EVG	33.1	**10.2 (1.2-87.6)**	**0.034**
Tumor budding	HE	7.3	**8.1 (1.4-45.1)**	**0.017**
	CAM5.2	17.7	**5.6 (1.1-27.9)**	**0.036**

[Suzuki et al, 2009]

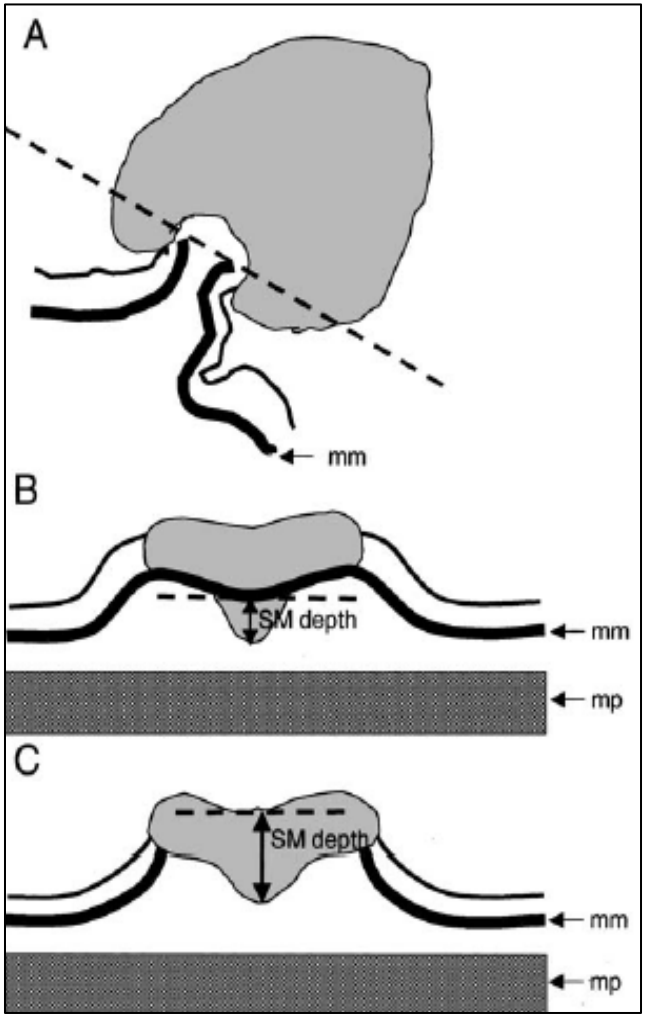
CANCERIZED ADENOMA:
Carcinoma Microstaging



[Sohn et al, 2007]



[Ueno et al, 2004]



[Kitajma et al, 2004]

Cancerized Adenomas: Metastatic Potential

LYMPH NODE METASTASES

- **PREVALENCE:** **9%** **(94/1093)**
- **MORTALITY:** **6.9%** **(vs 2.1% OR: 3.3)**

HEMATOGENOUS METASTASES

- **OVERALL PREVALENCE:** **2.9%** **(54/1868)**

- **PREVALENCE IN SURGICAL SERIES:** **3%**
- **PREVALENCE IN ENDOSCOPIC SERIES:** **2.7%**

[Hassan, Risio, Dis Colon Rectum 2005]