

Session III

A Case of Recurrent Abdominal Cavity and Liver Metastasis in Early Gastric Cancer Patients Undergoing Endoscopic Submucosal Dissection

Min Seong Kim, Jae Ho Park, Hyun Yong Jeong, Hee Seok Moon,
Jae Kyu Sung, Sun Hyung Kang, Ju Seok Kim

*Division of Gastroenterology, Department of Internal Medicine, Chungnam National University Hospital,
Chungnam National University School of Medicine, Daejeon, Korea*

Endoscopic submucosal resection is widely used for the treatment of early gastric cancer. The therapeutic indication for endoscopic submucosal dissection (ESD) can be expanded to differentiated gastric submucosal invasive cancer with negative lymphovascular involvement according to the treatment guidelines for gastric cancer in Japan. A 76-year-old man underwent endoscopic submucosal dissection at our institution for the early gastric cancer lesion incidentally diagnosed by endoscopy and CT. Histological examination revealed an intestinal type tubular adenocarcinoma, with moderately differentiated histology with 10×6 mm in size, invasion to the submucosa without lymphovascular involvement and clear basal and lateral resection margin. No recurrence was seen during follow-up period up to 17 months after the procedure. Thereafter, the patient complained of abdominal discomfort. There was no recurrence on follow-up duodenoscopy, but liver mass, ascites, peritoneal seeding, and lymph node metastasis were suspected on abdominal CT. A cytology examination of ascites showed malignant ascites, a metastatic adenocarcinoma. Liver biopsy was also examined for liver mass, which was also confirmed as metastatic adenocarcinoma and excluded a cholangiocarcinoma. At this point, we are wondering whether the distant metastasis in the peritoneum, liver, and lymph nodes of the patient is of gastric cancer or of other causes.

Key words: Early gastric cancer, Peritoneal carcinomatosis, Liver metastasis, Lymph node metastasis, ESD

REFERENCES

1. Oya H, Gotoda T, Kinjo T, et al. A case of lymph node metastasis following a curative endoscopic submucosal dissection of an early gastric cancer. *Gastric Cancer* 2012;15:221-225
2. Ye BD, Kim SG, Lee JY, et al. Predictive factors for lymph node metastasis and endoscopic treatment strategies for undifferentiated early gastric cancer. *J Gastroenterol Hepatol* 2008;23:46-50

조 O 정 (77/M) 2017.03.09-2017.03.13

- Chief complaint:

For ESD



Present Illness

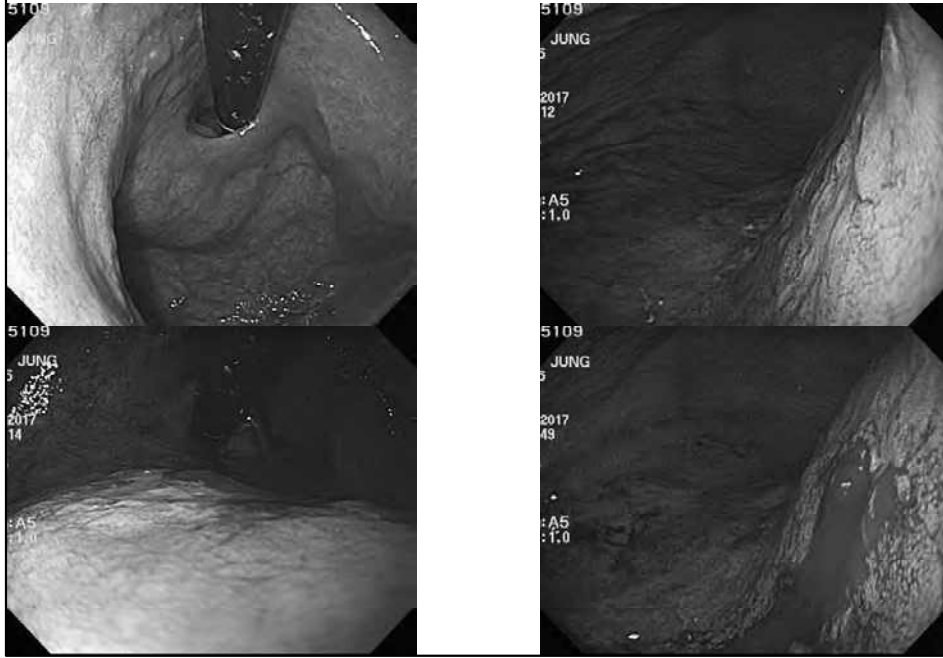
- 내원 한달 전 개인의원 검진목적의 내시경 검사
 - 상체부 후벽측으로 약 1 cm 크기의 편평 함몰형의 병변이 관찰되어 ESD 위해 내원함. (Bx. Tubular adenoma with high grade dysplasia)

- DM / HTN / Pul-Tbc / Hepatitis (- / + / - / -)

- ASA / CLOPI / Warfarin -/-/-

- CI / MI / Coagulopathy -/-/-

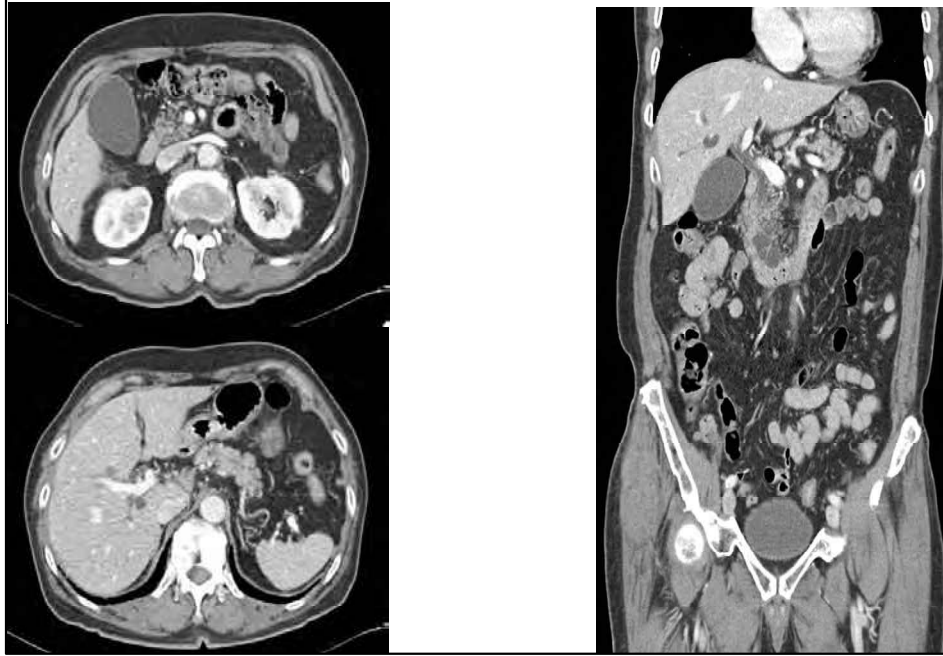
Duodenoscopy (2017.02.16)



Initial Lab data (2017.02.24)

Complete blood count		Serum chemistry		Urinalysis	
WBC	6,880 (10 ³ /uL)	TP/ Alb	7.2 / 4.5 (g/dL)	SG	1.026
Hb	14.4 (g/dL)	Glucose	96 (mg/dL)	pH	5.5
Hct	44.4 (%)	Total bilirubin	0.81 (mg/dL)	Protein	-
MCV	96.7 (fL)	T.Chol	237 (mg/dL)	Glucose	-
Platelet	299 (10 ³ /uL)	AST/ ALT	16 / 9 (IU/L)	Ketone	-
Seg.Neutrophil	52.5 (%)	ALP	56 (IU/L)	Bilirubin	-
Coagulation test		r-GT	53 (IU/L)	Erythrocyte	-
		BUN/ Cr	20.3 / 0.78 (mg/dL)	Nitrite	-
		Na/ K/ Cl	145.7/4.7/108.4 (mEq/L)	Urobilinogen	+/-
		T.Ca/ P	9.3 / 2.9 (mg/dL)	Color	Yellow
		Tumor marker		Leukocyte	-
aPTT	26.0 (sec)			CEA	1.25 (ng/ml)
PT	10.7 (sec)			Turbidity	Clear
PT (INR)	0.97 (ratio)			RBC	0-2
				WBC	0-2

Abdomen pelvic CT (2017.02.24)



Assessment & Plan

조직검사 결과 : Tubular adenocarcinoma, moderately differentiated

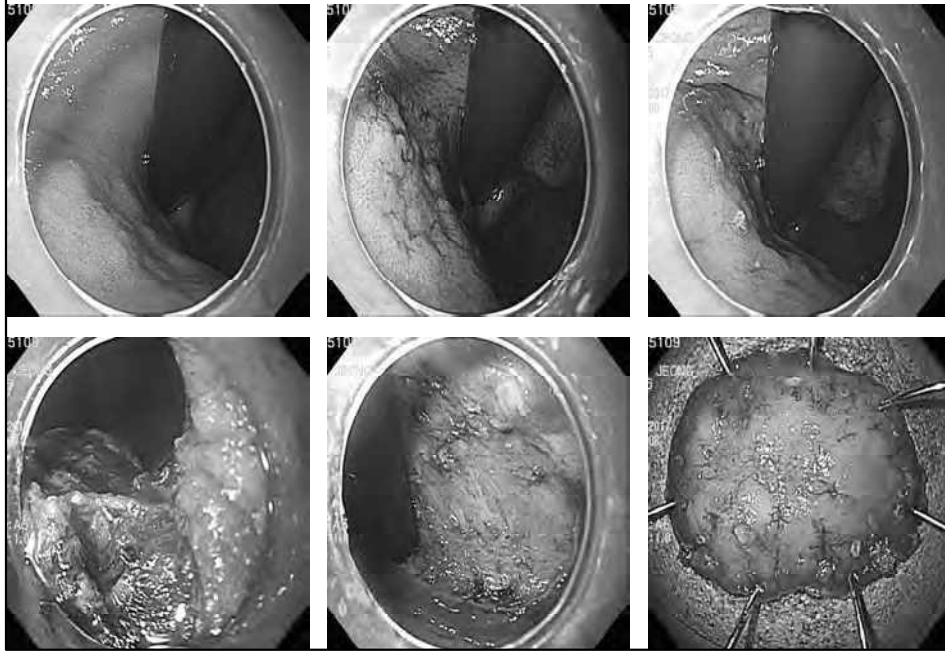
- #1. A) EGC IIc, M cancer
 P) ESD

- #2. A) r/o IPMN
 P) EUS

- #3. A) Known HTN
 P) BP check & Medication



ESD (2017.03.10)



Pathologic report 2017.03.15

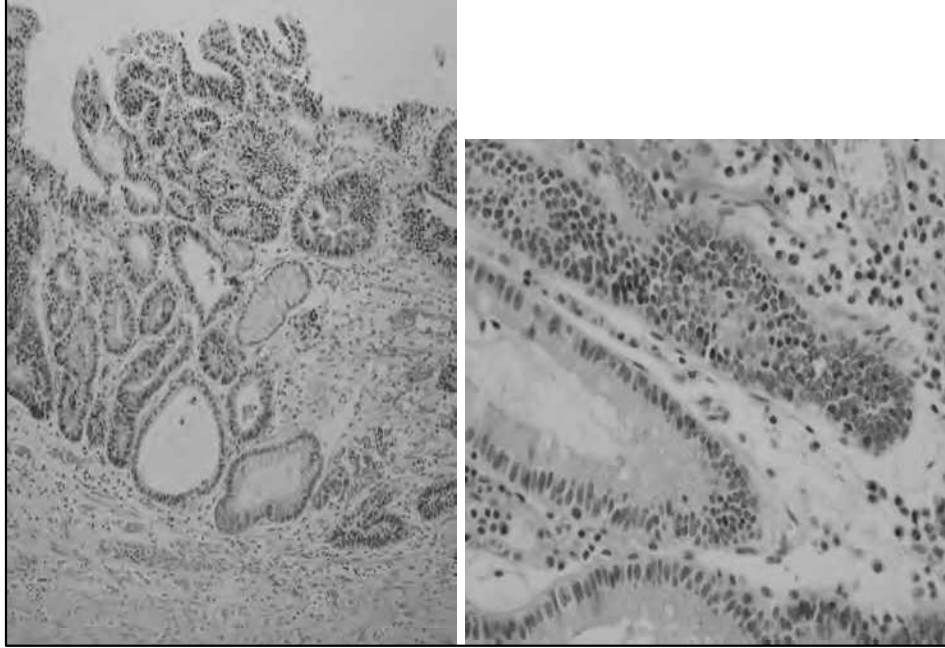
◎ 병리진단

Stomach, submucosal dissection;

Early gastric cancer, type IIc (tubular adenocarcinoma, moderately differentiated) (intestinal type) (2, 3), with

- 1) invasion to the submucosa (depth of invasion: 720 μ m from the muscularis mucosae)
- 2) tumor size : 10x6 mm
- 3) clear basal and lateral resection margin (safety deep margin 370 μ m and lateral margin : 4 mm)
- 4) no tumor emboli in lymphovascular spaces

Pathology



Post ESD Hx.

- 2017.03.20 외래
 - SM2이나 잘 절제된 상태로 고령이고 위수술시 위 전절제술이 필요해서 우선 두고 보면서 경과 관찰합니다.
 - A) Stomach cancer, pStage IA (T1bN0M0)
 - P) 6개월 마다; 3년간 추적관찰.
- 2017.06.20 외래 : 증상없고 잘 지내심.
 - GFS : Post ESD scar (상체부 후벽)
 - No sign of recurrence
- 이후 외래 추적관찰 오지 않음.



Post ESD Hx.

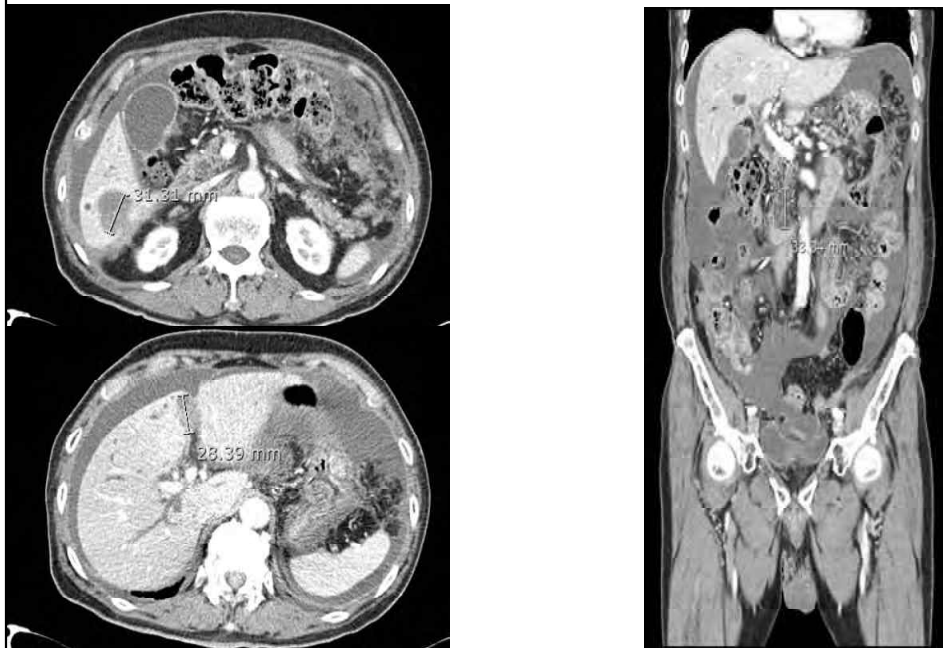
- 2018.08.23 복부 불편감으로 외부병원에서 APCT 시행.
 - 3.4 cm, 1.6 cm nodule in liver
 - r/o Metastasis>Liver abscess
 - r/o Cholangiocarcinoma with focal fat infiltration.
 - Newly noted ascites

- 2018.09.04.~09.17 Liver mass evaluation

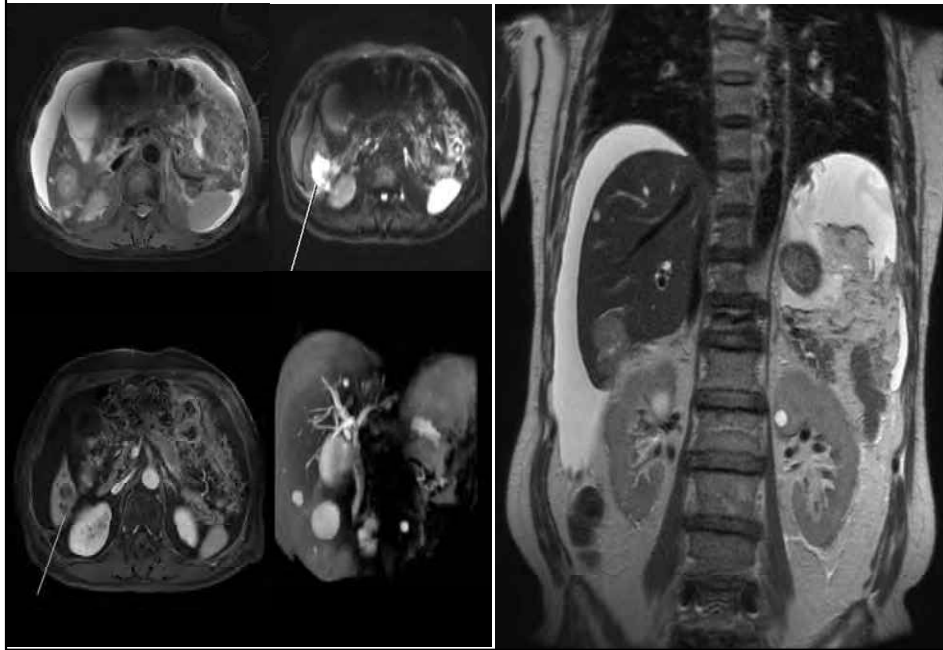
- 2018.09.03 Liver CT
- 2018.09.05 Liver MRI

Tumor marker (2018.08.28)	
CEA	16.71 (ng/mL)
AFP	2.09 (ng/mL)
CA 19-9	1,859 (U/mL)

Abdomen pelvic CT (2018.09.03)



Liver MRI (2018.09.05)

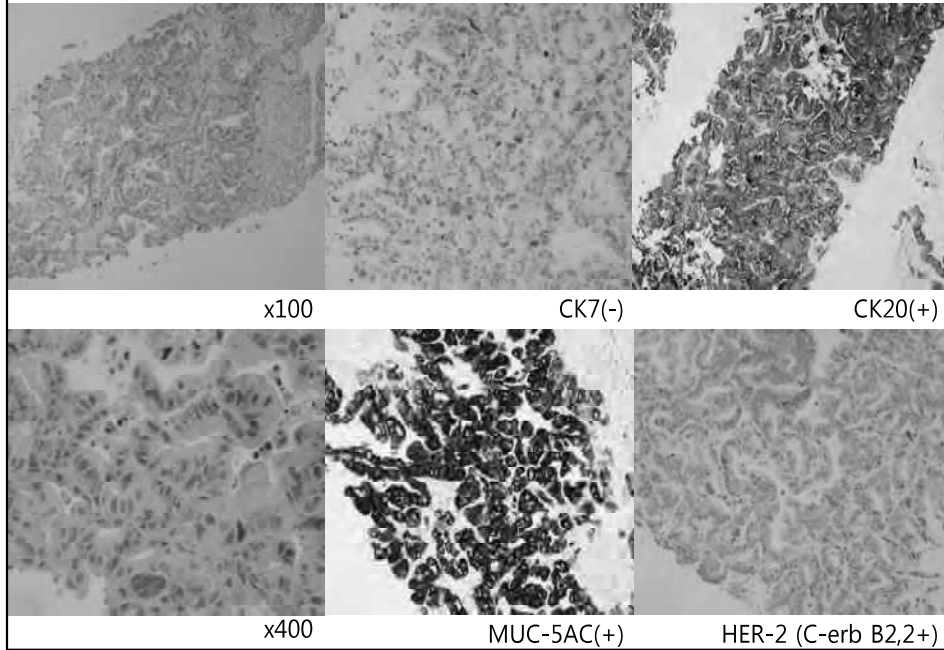


Post ESD Hx.

- Tumor origin evaluation 위해 간 조직검사 시행예정이었으나 2ND Opinion 위해 서울 병원으로 전원 원함.
- 2018.09.19 항암치료외 다른 치료 방법이 없음을 확인 후 재 입원.
 - 18.09.04, 18.09.17 Ascites : Metastatic adenocarcinoma
 - 18.09.24 Pleural effusion 발생 : Cytology(-), CEA 178.11
- 18.10.02 Liver Bx : S6 of liver
 - Adenocarcinoma, origin undetermined
- 18.10.10 Immunohistochemical study
 - CK-7: (-), CK-20: (+), MUC-5AC: (+) C-erb-B2: (2+)



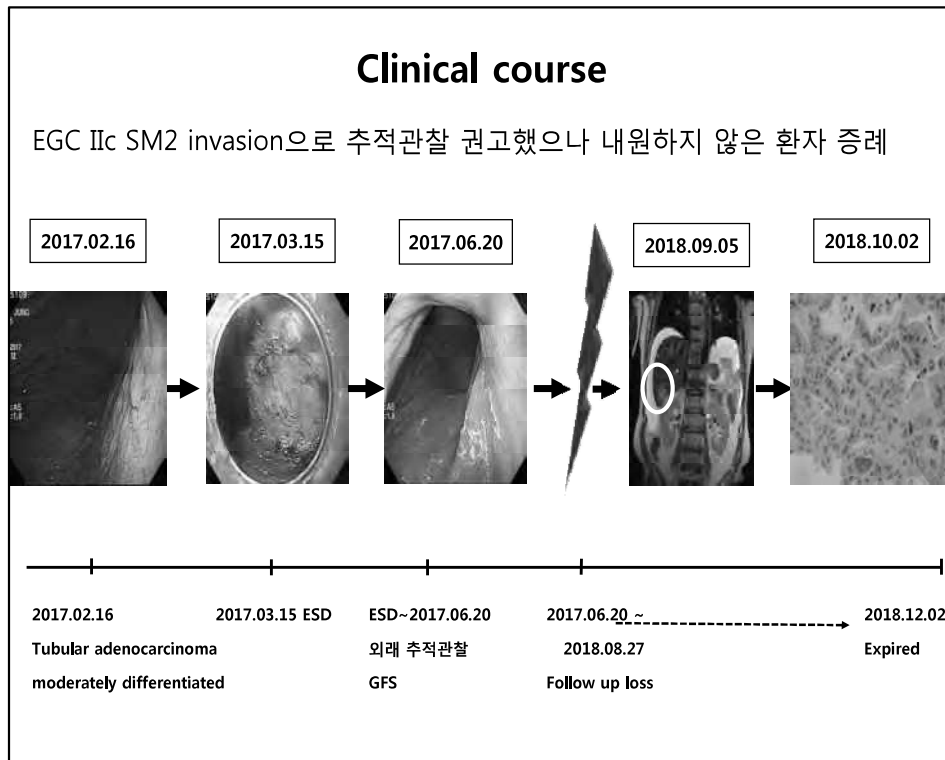
Pathology & IHC photo (2018.10.02-16)



Post ESD Hx.

- 2018.10 가족 면담 :
 - 현재 치료하지 않은 상태에서 여명 2-3개월 이내임에 대해 설명함.
 - 항암제의 부작용 및 고령, 현재 환자 상태와 암의 상태를 고려하였을 때 항암치료가 최선의 치료가 아닐 수 있음에 대해 설명함.
 - 항암치료 하지 않기로 결정하였으며, 호스피스에 대해 협진
- 2018.12.02 Expired.





Conclusion

- 추적관찰이 이루어지지 않아 신속한 진단이 어려웠던 증례로 원발암이 모호하여 진단을 위한 조직검사가 필요하나 시기가 지연되어 항암치료를 시작하지 못하였음.
- 환자 상태를 고려하며, SM2 invasion 이상인 경우에는 수술적 치료를 권고하는 것이 필요하겠음.




Table 1 Comparison of immunohistochemical profiles of Barrett's, esophageal and gastric adenocarcinoma

Immunohistochemical markers	Barrett's esophagus		Esophageal adenocarcinoma	Gastric adenocarcinoma
	without dysplasia	With dysplasia		
AMACR	0%	98%	73%	/
HepPar-1		97%	13%	31%
Keratin 7		97%	94%	51%
Keratin 20		95%	45%	48%
MUC1	40%	23%	47%	31%
MUC2	95%	95%	0%	29%
CDX-2	77%	37%	46%	60%
P53	0%	75%	57%	/
KI-67	11%	85%	76%	/

Reference: (52)

Table 3 Summary of immunohistochemical profiles of tumors of the gastrointestinal tract

Tumor types	Keratin 7	CK20	MUC1	MUC2	MUC5AC
Esophageal adenocarcinoma	92%	62%	36%	19%	42%
Gastric adenocarcinoma, intestinal	63%	32%	0%	27%	53%
Gastric adenocarcinoma, diffuse	75%	42%	33%	11%	53%
Small intestinal adenocarcinoma*	92%	59%	52%	43%	30%
Colorectal adenocarcinoma	8%	95%	35%	40%	9%
Appendiceal adenocarcinoma	28%	100%	17%	100%	67%
Pancreatic ductal adenocarcinoma	96%	40%	87%	9%	70%
Cholangiocarcinoma	91%	35%	60%	10%	42%
Adenocarcinoma of Ampulla of Vater	58%	44%	58%	21%	28%

Reference: (52)

J Gastrointest Oncol 2012;3(3):262-284

MUC5AC

Table 3
Expression Profiles of MUC1, MUC2, and MUC5AC in Carcinomas of the Gastrointestinal Tract*

MUC1/MUC2/MUC5AC Profile	Colon Adeno-carcinoma (n = 19)	Colon Mucinous Adeno-carcinoma (n = 1)	Esophagus Adeno-carcinoma (n = 12)	Hepatocellular Carcinoma (n = 13)	Liver Cholangio-carcinoma (n = 11)	Pancreas Ductal Adeno-carcinoma (n = 11)	Stomach Adeno-carcinoma (n = 11)	Stomach Mucinous Adenocarcinoma (n = 1)
MUC1+/MUC2+/MUC5AC+	3 (16)	0 (0)	2 (17)	0 (0)	0 (0)	0 (0)	2 (18)	0 (0)
MUC1+/MUC2+/MUC5AC-	2 (11)	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	1 (9)	0 (0)
MUC1+/MUC2-/MUC5AC-	5 (26)	0 (0)	2 (17)	0 (0)	3 (27)	2 (18)	2 (18)	0 (0)
MUC1+/MUC2-/MUC5AC+	0 (0)	0 (0)	5 (42)	0 (0)	5 (45)	7 (64)	3 (27)	0 (0)
MUC1-/MUC2+/MUC5AC+	1 (5)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (100)
MUC1-/MUC2+/MUC5AC-	6 (32)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (9)	0 (0)
MUC1-/MUC2-/MUC5AC+	1 (5)	0 (0)	1 (8)	0 (0)	0 (0)	1 (9)	1 (9)	0 (0)
MUC1-/MUC2-/MUC5AC-	1 (5)	0 (0)	2 (17)	0 (0)	3 (27)	1 (9)	1 (9)	0 (0)

* Data are given as number (percentage) of positive cases.

Am J Clin Pathol 2004;122:61-69