- Birthday: 1952/07/31
- Date of admission:1999/12/30
- Age:48 y/o
- Past medication:ESRD under regular HD for 5+ years; denied DM and HTN

- Chief Complaint :

  1)intermittent LLQ cramping pain for 2 months

  2) LGI from LMD showed irregular shadow at splenic flexure

# Present illness

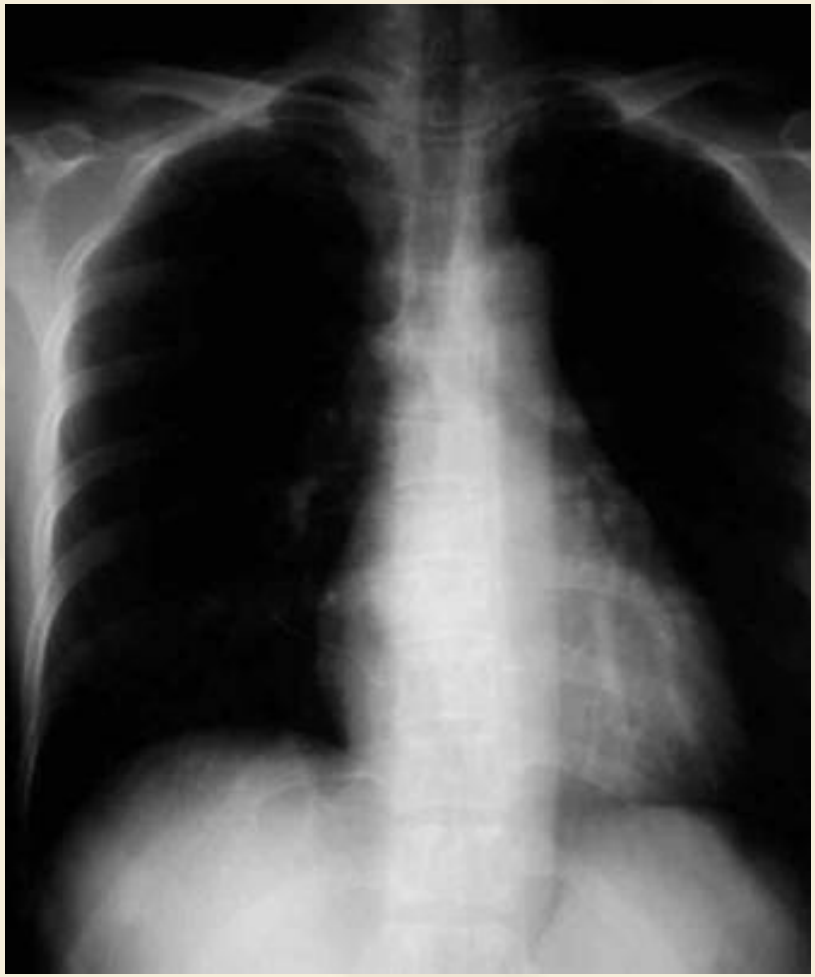
- 48 y/o female under regular HD
- Intermittent left periumbilical cramping pain for 2 months,
- at first, AGE was impressed
- Additionally, constipation became severe

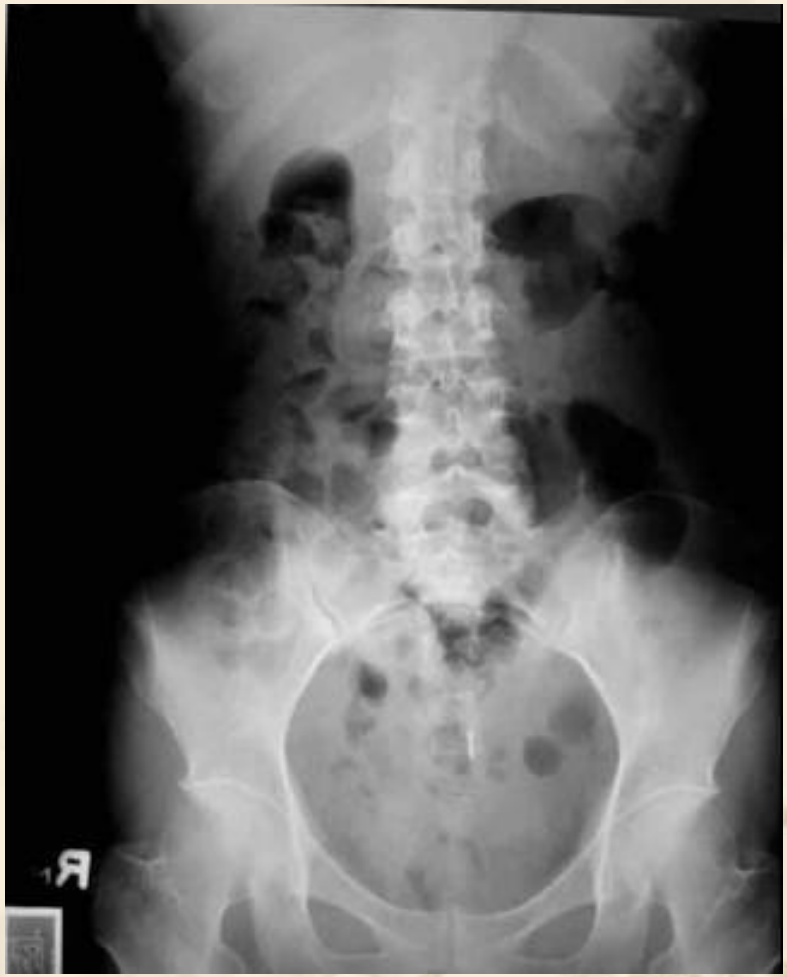
- So lower GI was performed in 新竹惠民醫院
- Irregular shadows at T-colon splenic flexure, mucosal thickening, and multiple strictured intestine segments without definite obstructive lesions were noted

- 1999/12/23:D&C
- 1999/12/30:adissiom
- 1999/12/31:coloscope
- 2000/01/03:lower GI angiography
- 2000/01/05:abdominal CT
- 2000/01/06:ERCP
- 2000/01/10:exploratory laparotomy
- 2000/01/21:discharge

# 1999/12/23:D&C

- Currettage specimen show endometrium and myometrial tissue with signet-ring cell carcinoma
- DX: metastatic signet ring cell adenocarcinoma

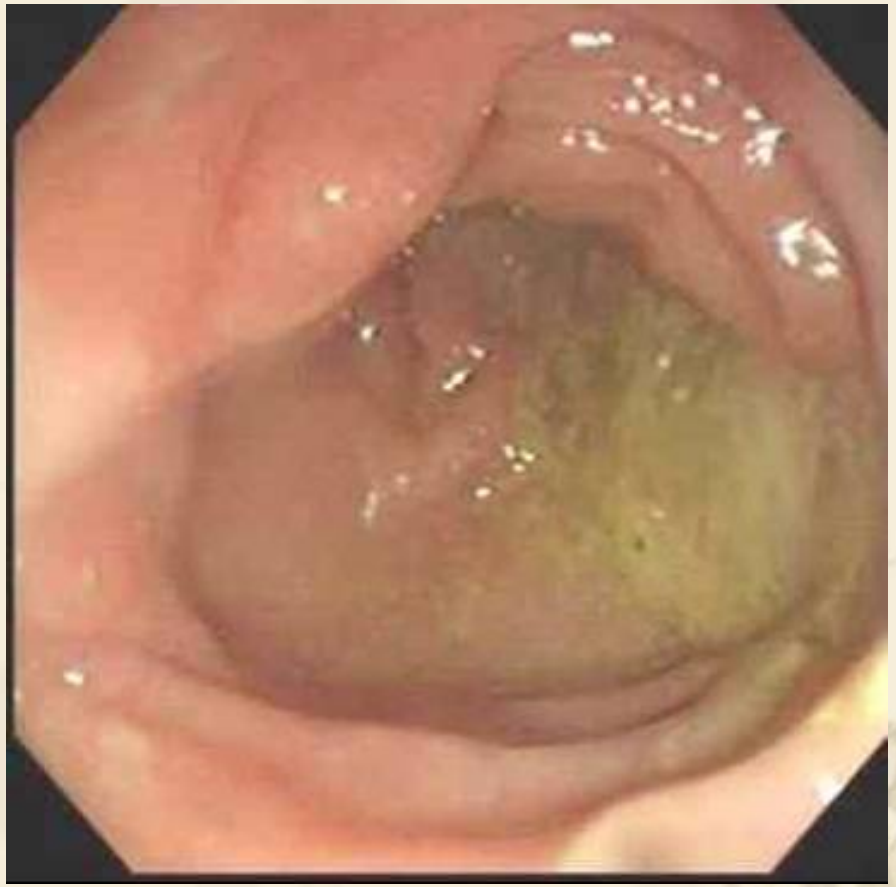




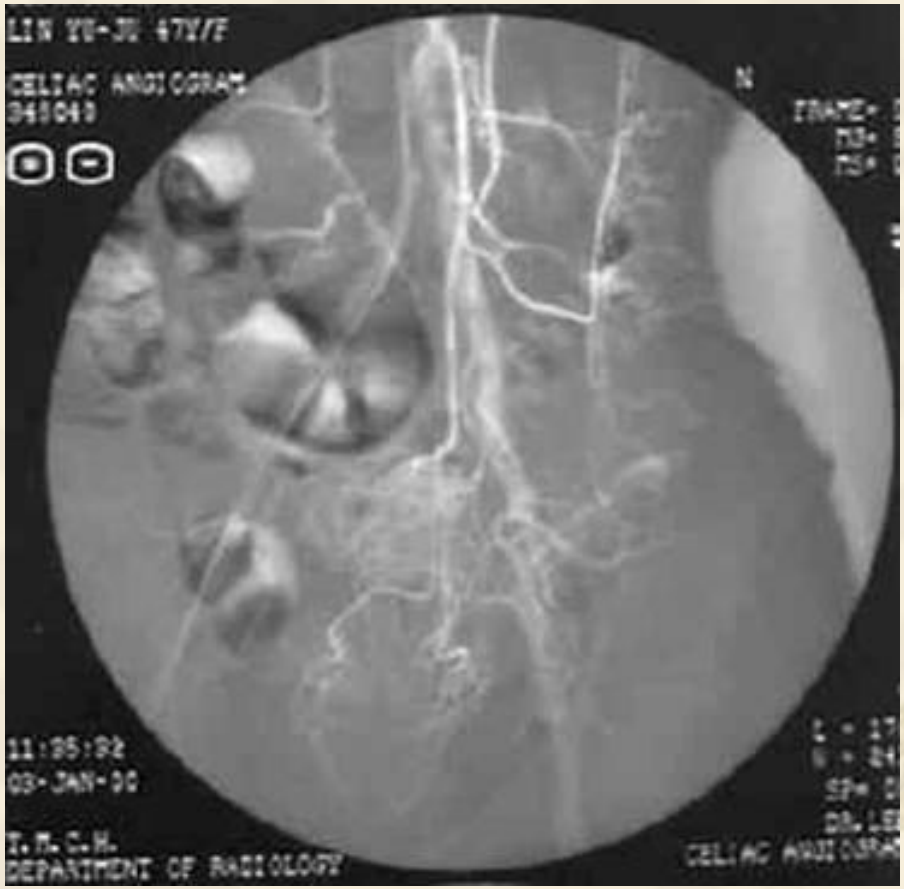
Chest X-ray and KUB: no special finding

# 1999/12/31:coloscope

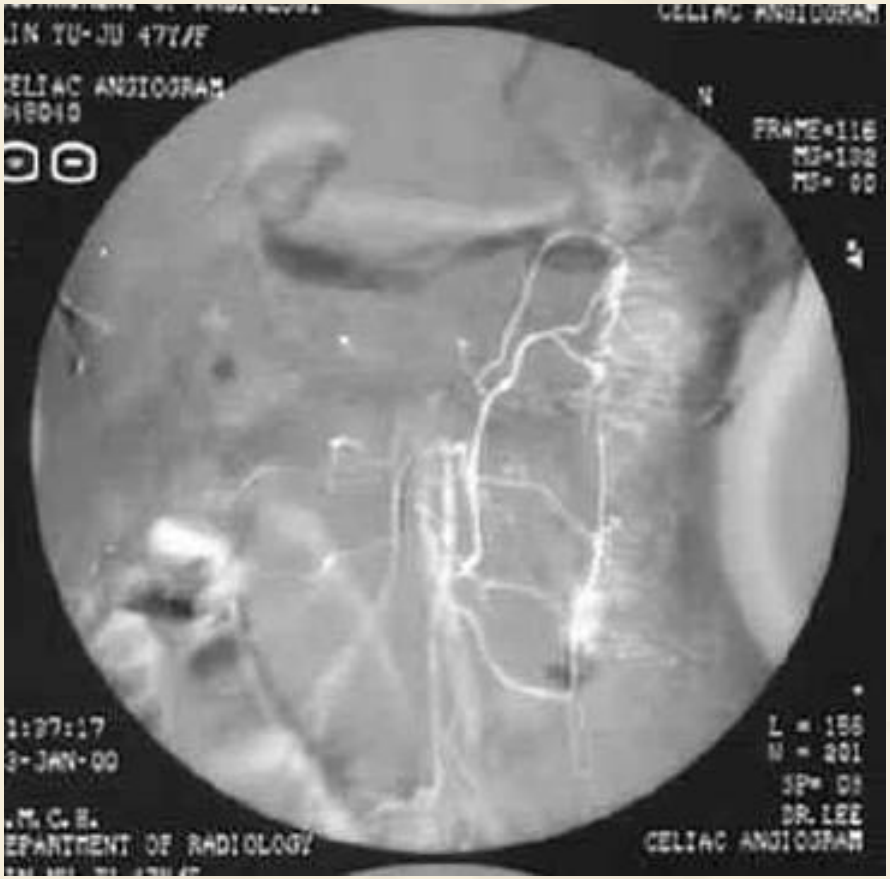
- Hyperemic, nodular swelling mucosa change of colon was noted at 50 cm from anal verge, so the scope can’t pass through
- Biopsy: nonspecific chronic inflammatory

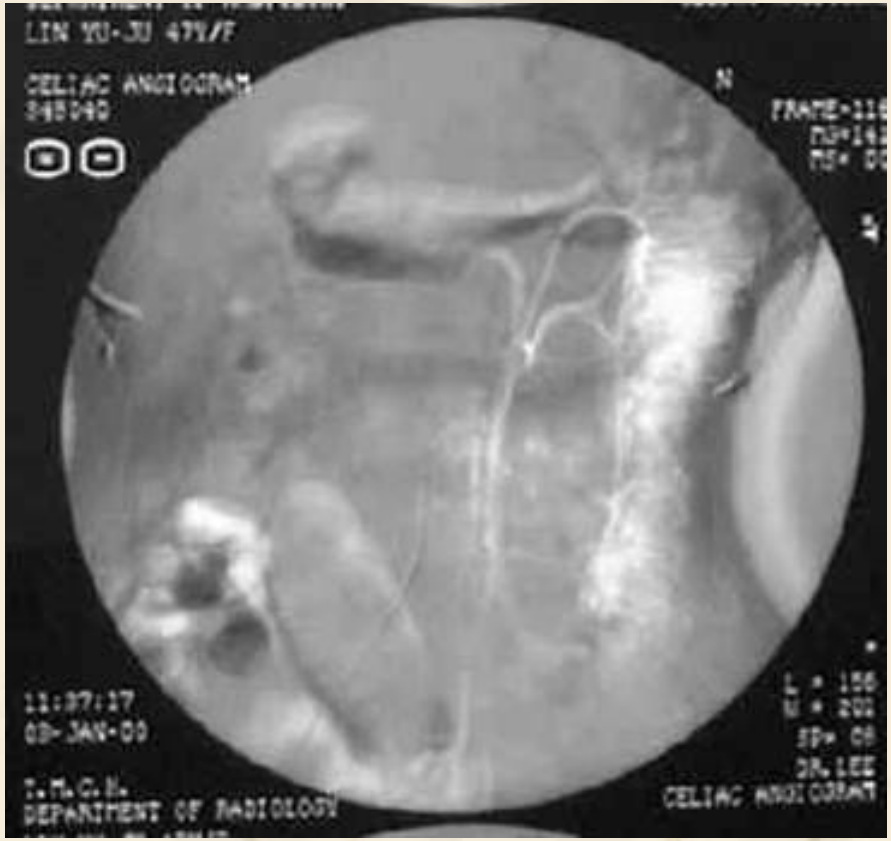


# Angiography



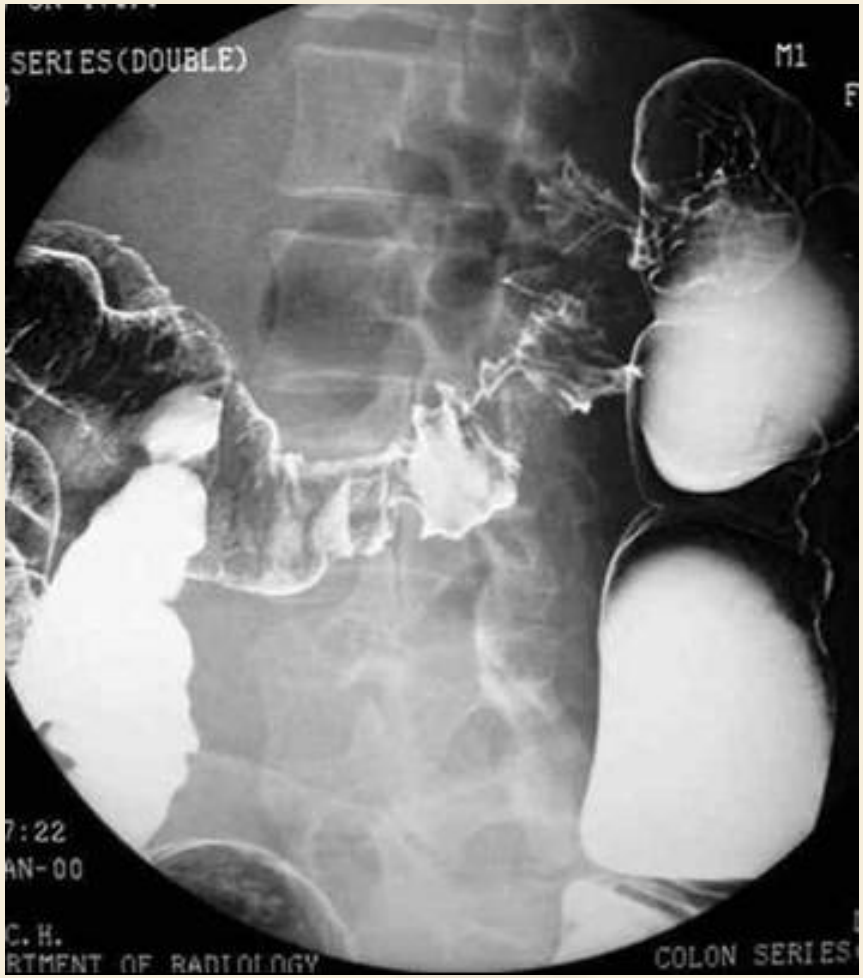
# Angiography

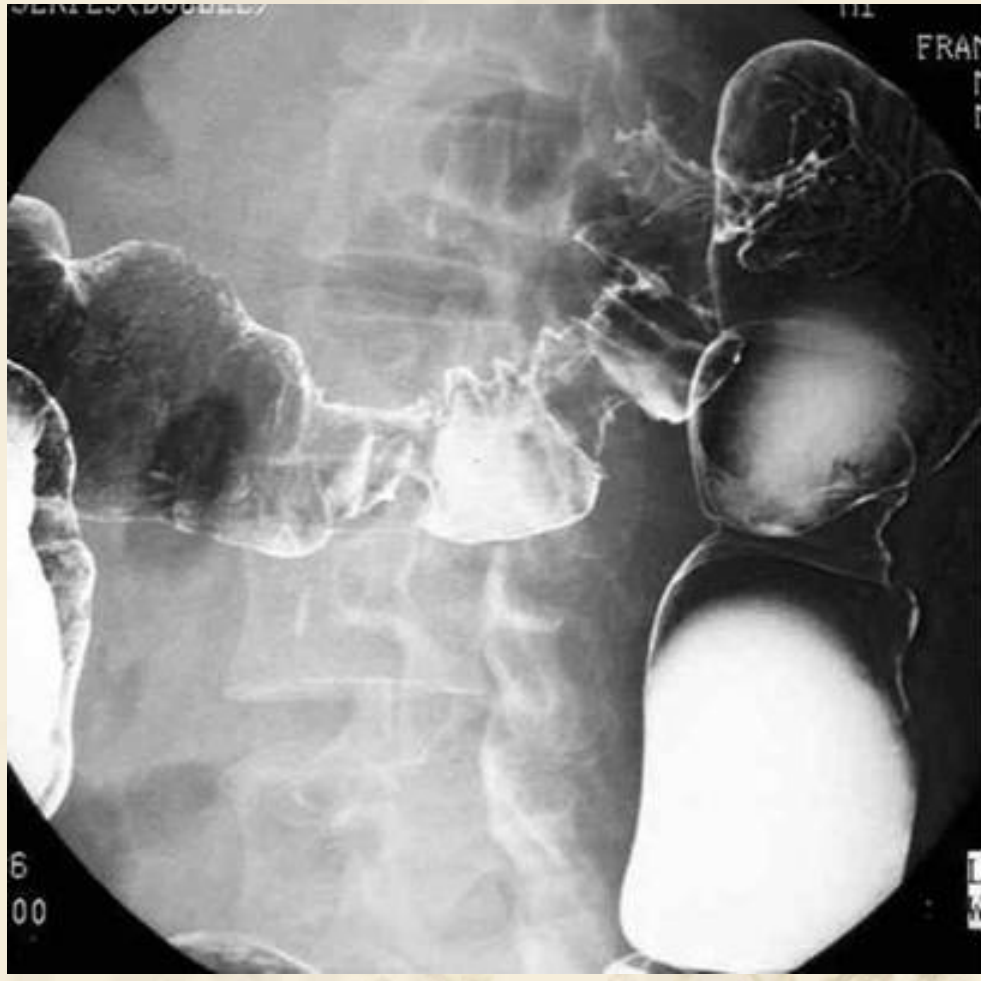


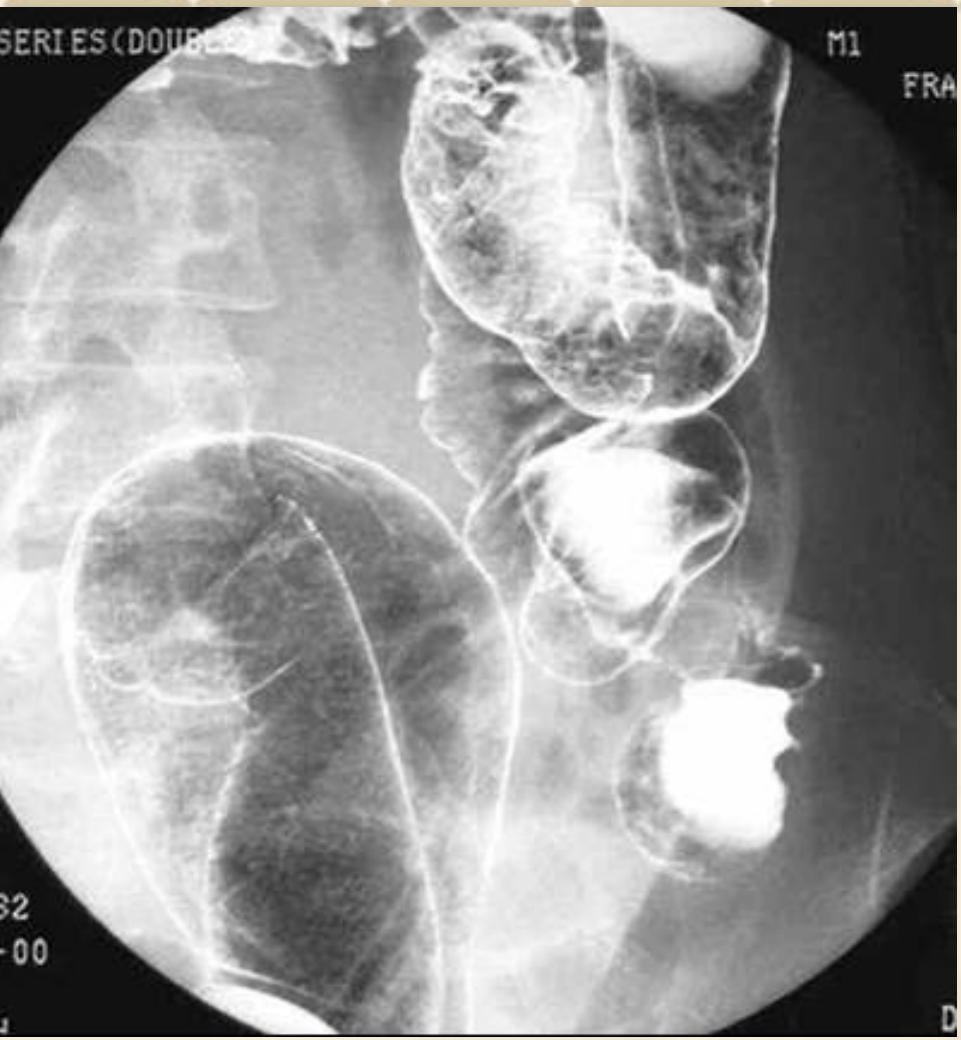

- Multilpe hyperemic area was noted over the rectosigmoid and splenic flexure regions, mucosal erotic chronic bleeding was susupected

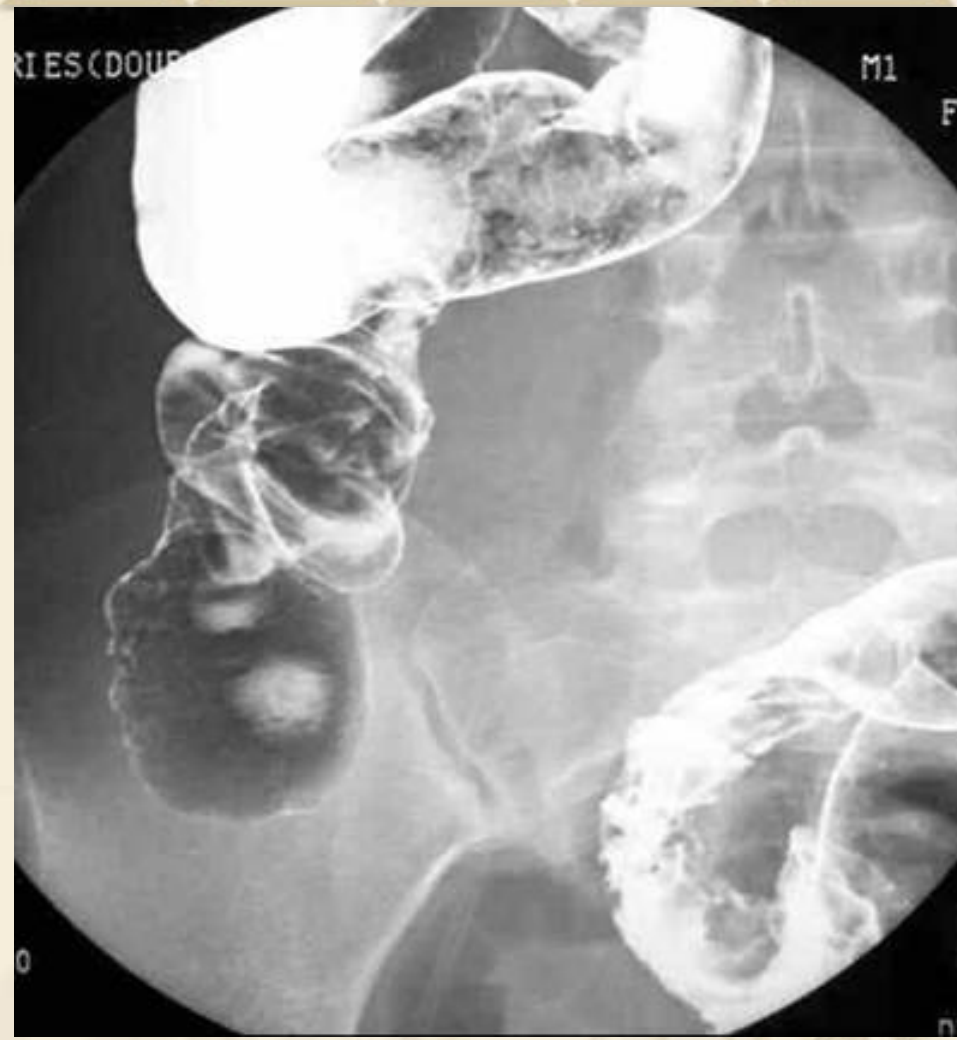
# Lower GI 2002-1-3



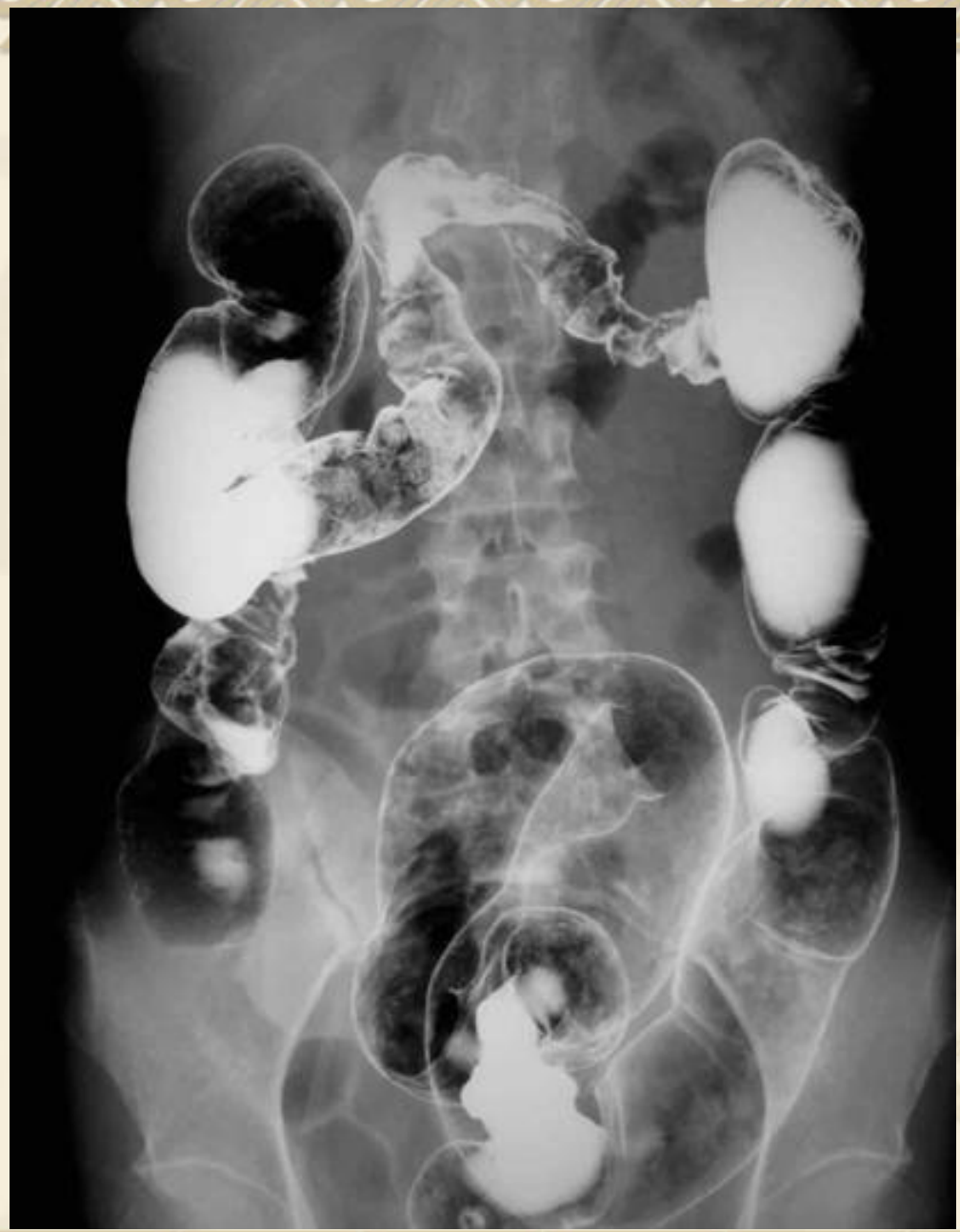



Multiple segmental strictures with mucosal tethering at recto-sigmoid, sigmoid-descending junction and the splenic flexure

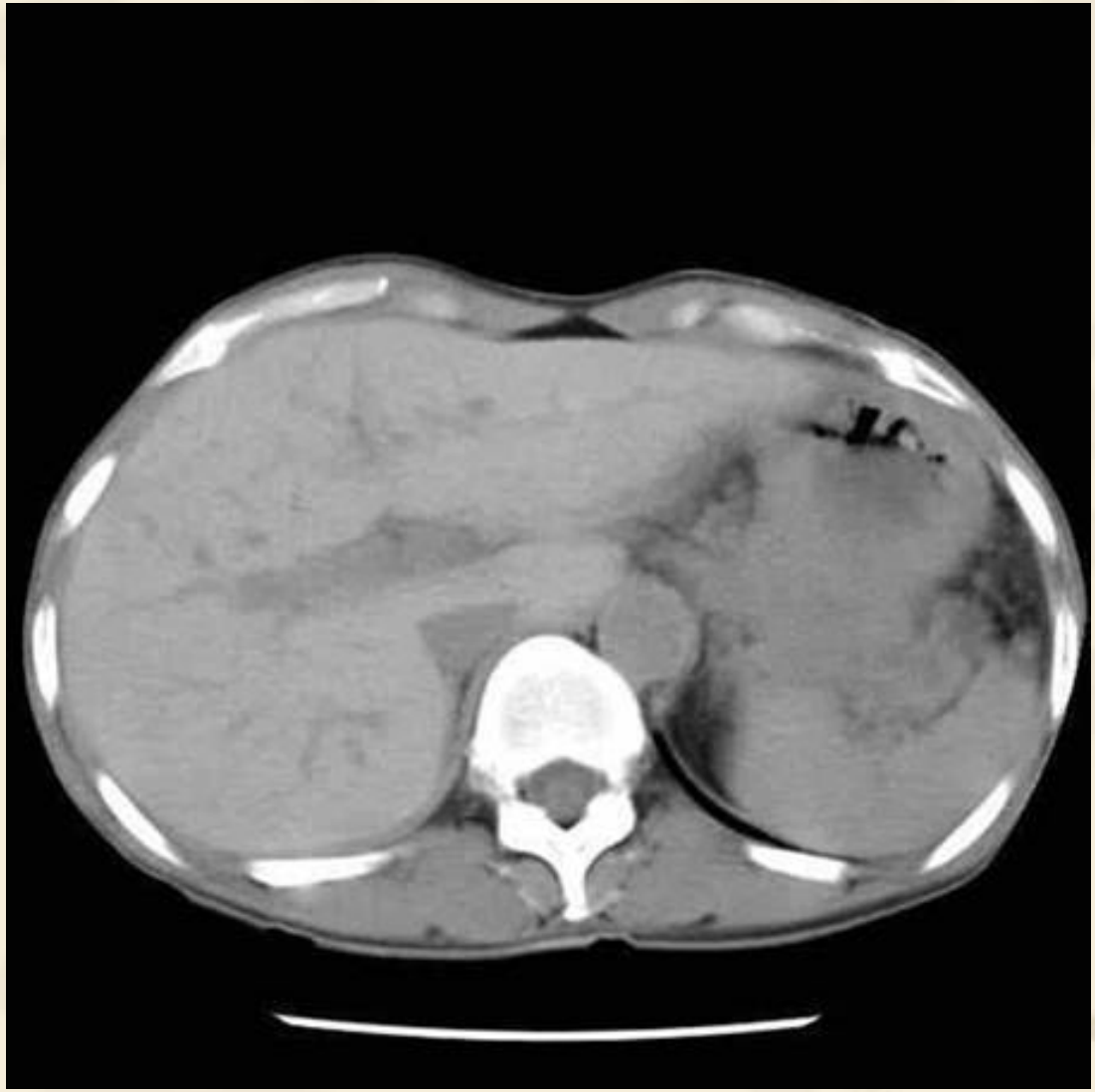


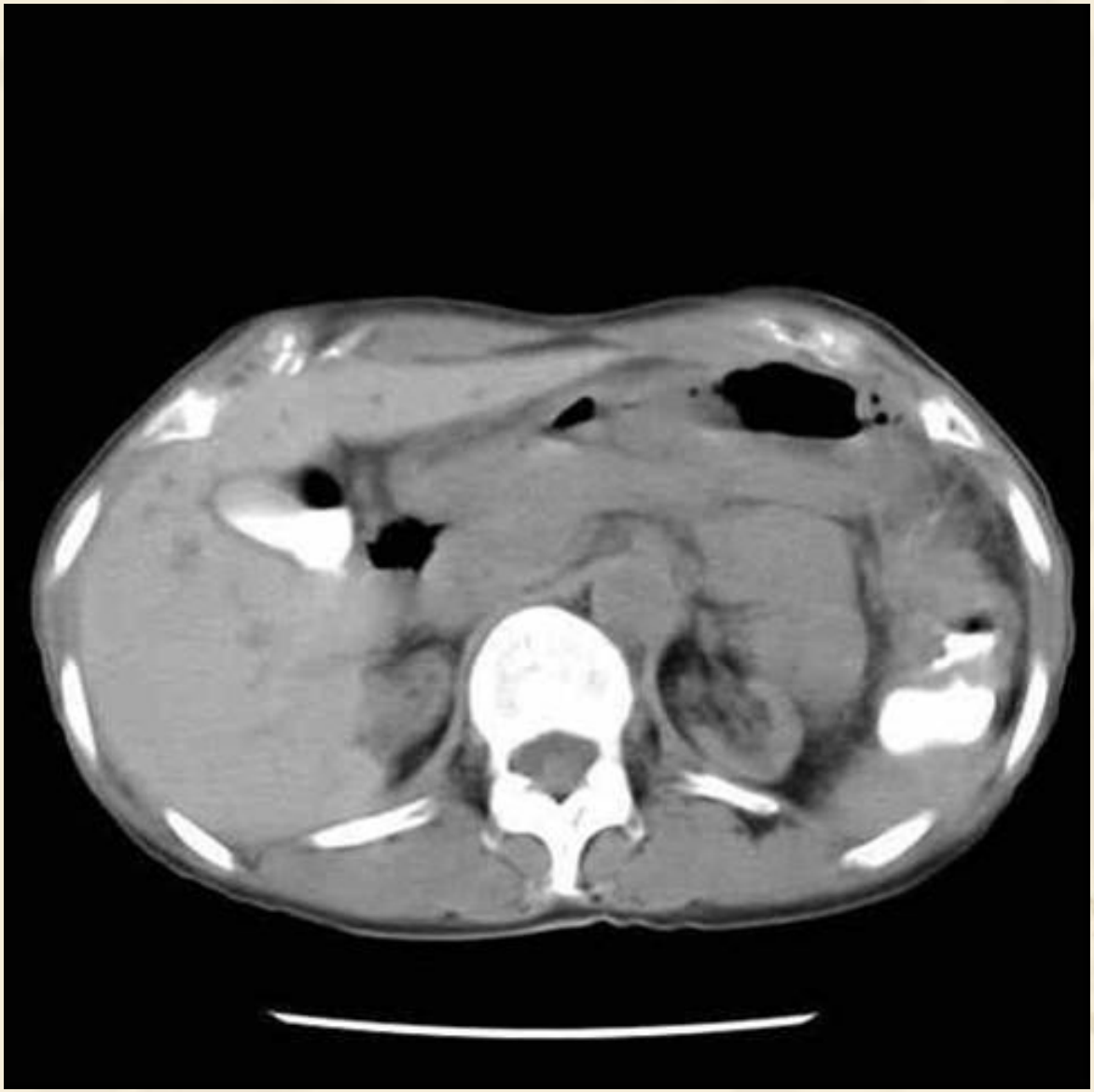




IMP: tumor seeding to the colon is highly suggested



# Abdominal CT (1) 2002-1-5

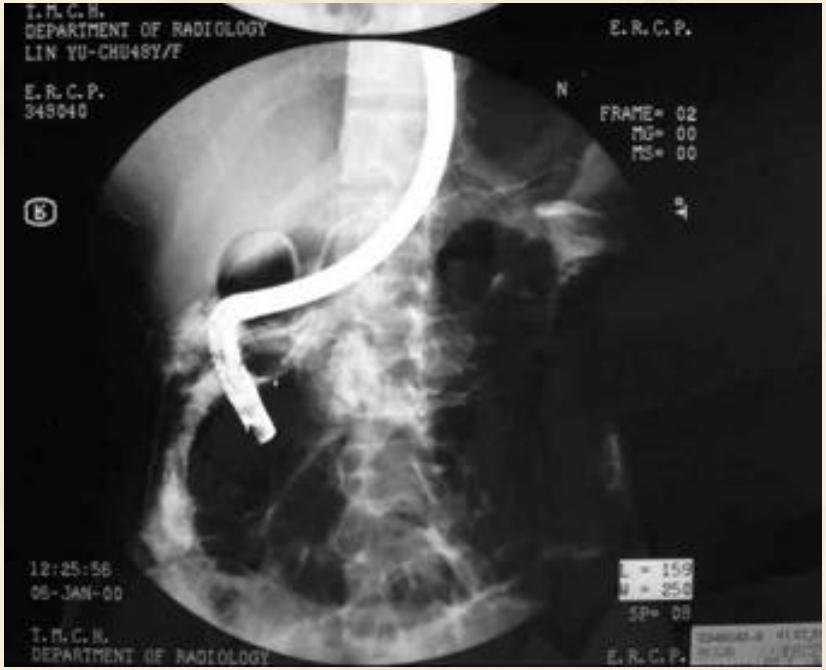


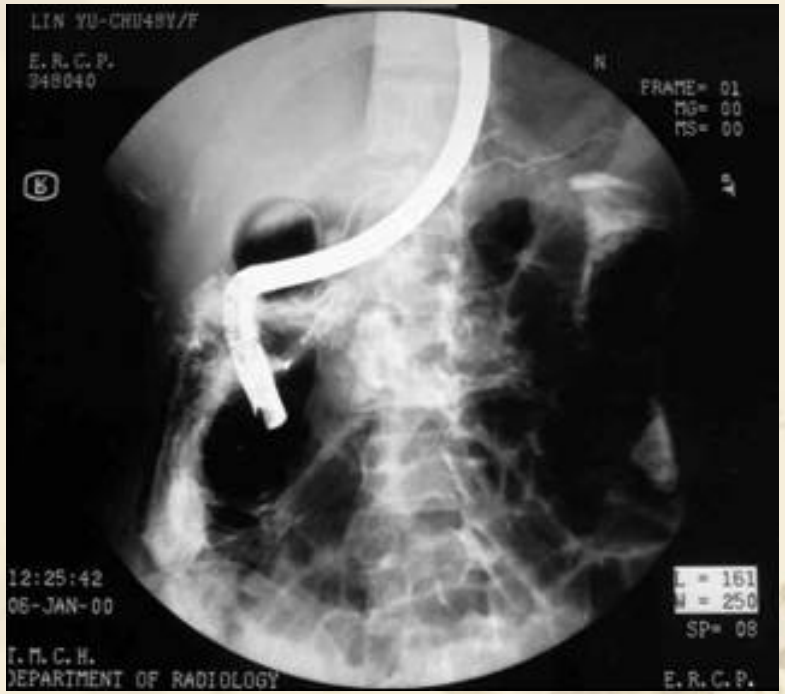


# 89/01/05:abdominal CT

- Inhomogenous infiltrative mass at retrogastric space, with invation to the pancreas tail, T-colon, descending colon and left pararenal space
- Bilateral renal atrophy
- IMP: infiltrative mass at retrogastric space
- DDX: gastric ca, pancreatic ca; associated with peritoneal seeding

# 89/01/06:ERCP

- Nonspecific finding
- 



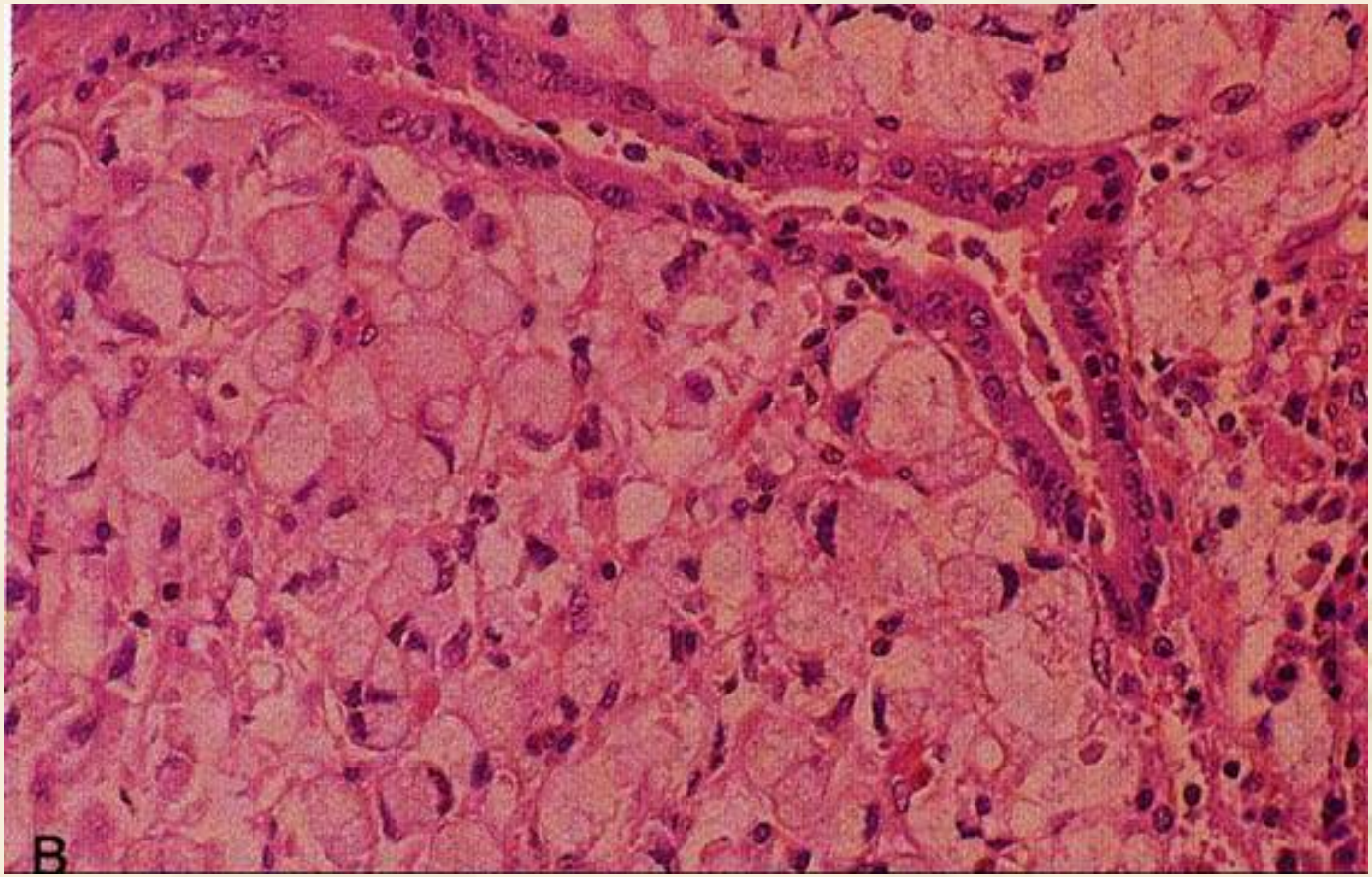
# 89/01/10:exploratory laparotomy

- Pre-op DX: Abd. Pain r/o carcinomatosis
- Post-op DX: advanced gastric ca + multiple tumor seeding included peritonum, douglaus pouch, sigmoid and  mesentary
- Path. DX: metastatic adenocarcinoma with scattering signet-ring cells

# Different diagnosis

- Gastric adenocarcinoma with peritoneal metastasis -most likely
- Pancreatic cancer
- Gastric lymphoma
- Metastic cancer from unknown

# Gastric adenocarcinoma



# S/S of Gastric adenocarcinoma

- Abdominal pain
- Unexplained weight loss
- Anorexia
- Early satiety
- Anemia or upper GI bleeding

-none is sensitive or specific

# Morphology

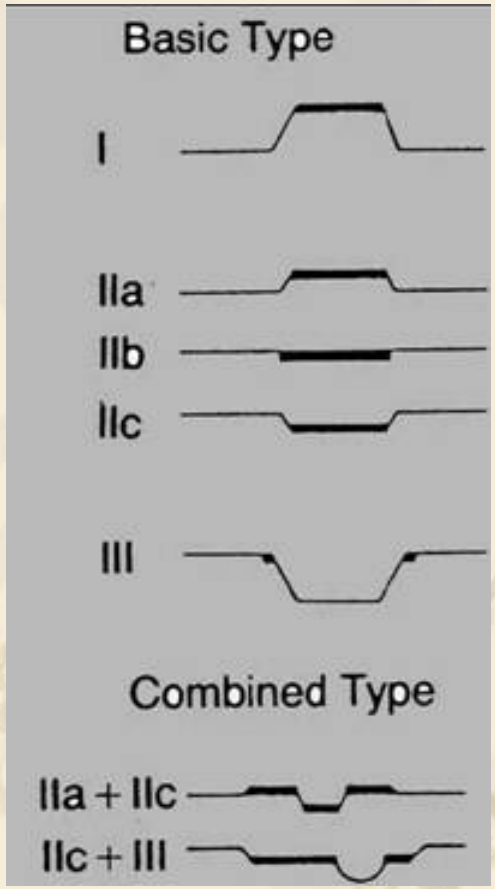
1. polypoid/ fungating carcinoma
2. Ulcerating/ penetrating carcinoma( 70% )
3. Infiltating / scirrhous carcinoma = linitis plastica( 5~15% )
4. Superficial spreading carcinoma = confined to mucosa / submucosa; 5-year survival of 90%
5. Advanced carcinoma

# linitis plastica

1. histo: frequently signet ring cell type+ increase fibrous tissue
2. Firmness, rigidity, reduced capacity of stomach, aperistalsis in involved area
3. Granular/ polypoid fold with encircling growth

# Early gastric cancer (20%)=invasion limited to mucosa+ submucosa( T1 lesion )

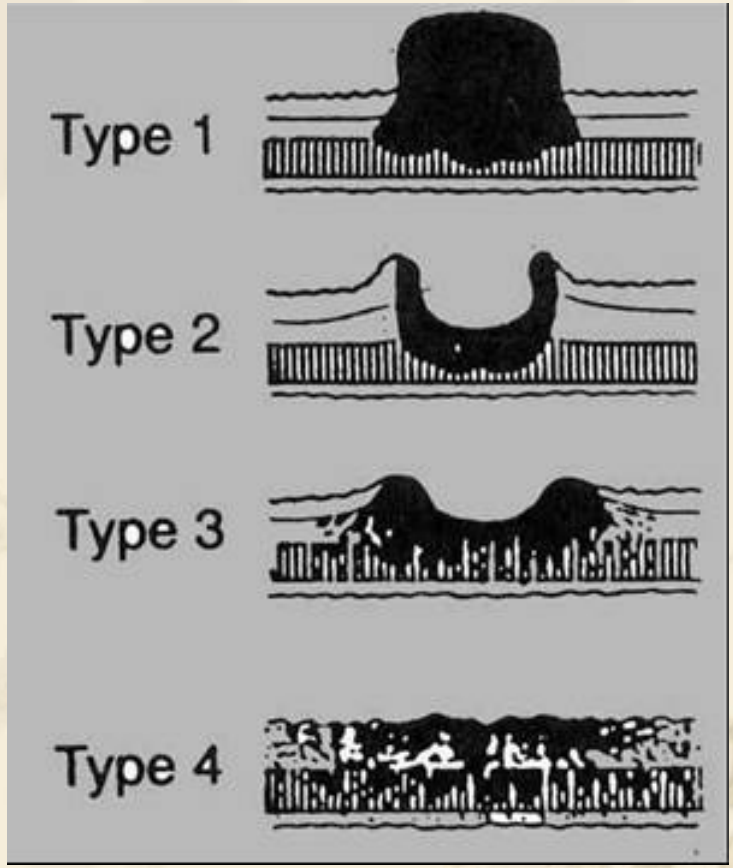
- Type I: protruded type> 0.5 cm height with protrusion into gastric lumen(10~20%)
- Type II : superficial type< 0.5 cm height
  - IIa: slightly elevated surface ( 10~20% )
  - IIb: flat/ almost unrecognizable ( 2% )
  - IIc: slightly depressed surface(50~60%)
- Type III : excavated type ( 5~10 %)



# Advanced gastric cancer( T2 lesion and higher)

Bormann classification:

- Type 1 : broad- based elevated polypoid lesion
- Type 2 : elevated lesion + ulceration + well-demarcated margin
- Type 3 : elevation + ulceration + ill-defined margin
- Type 4 : ill-defined flat lesion
- Type 5 : unclassified, no apparent elevation



# Evidence of metastatic cancer

- Abdominal mass, ascites or jaundice
- Enlarged Virchow's node( supraclavicular n.)
- Sister Mary Joseph's node(infiltration of the umbilicus)
- Blumer's shelf( a mass in pelvic cul-de-sac)
- Krukenberg's tumor( enlarged ovaries on PE)

# Stage

-importment in selecting the appropriate treatment

**Table 13-1.** TNM (tumor, node, metastasis) staging of gastric cancer

| | |
|---|---|
| **T: Primary tumor** | |
| T0 | No evidence of primary tumor |
| Tis | Carcinoma *in situ* |
| T1 | Invasion of lamina propria or submucosa |
| T2 | Invasion of muscularis propria or subserosa |
| T3 | Penetration of serosa |
| T4 | Invasion of adjacent structures |
| **N: Regional lymph nodes** | |
| N0 | No regional node metastasis |
| N1 | Involved perigastric nodes within 3 cm of tumor |
| N2 | Involved perigastric nodes >3 cm from tumor edge or involvement of left gastric, splenic, celiac, or hepatic nodes |
| **M: Distant metastasis** | |
| M0 | No distant metastases |
| M1 | Distant metastases present |

## Stage Grouping

| | | | |
|---|---|---|---|
| Stage 0 | Tis | N0 | M0 |
| Stage IA | T1 | N0 | M0 |
| Stage IB | T1 | N1 | M0 |
| | T2 | N0 | M0 |
| Stage II | T1 | N2 | M0 |
| | T2 | N1 | M0 |
| | T3 | N0 | M0 |
| Stage IIIA | T2 | N2 | M0 |
| | T3 | N1 | M0 |
| | T4 | N0 | M0 |
| Stage IIIB | T3 | N2 | M0 |
| | T4 | N1 | M0 |
| Stage IV | T4 | N2 | M0 |
| | Any T | Any N | Any M1 |

# Prognosis

Overall 5-year survival rate of 5~18%, mean survival time of 7~8 months

- 5-year survival in stage T1: 85%
- 5-year survival in stage T2: 52%
- 5-year survival in stage T3: 47%
- 5-year survival in stage N1~2: 17%
- 5-year survival in stage N3: 5%

# Prognostic parameters of gastric carcinoma

| Tumor Size | Metastases | Limited to Submucosa | 5-Year Survival Rate |
|---|---|---|---|
| 1 cm | 11% | | 87% |
| 2 cm | 25% | 70% | 67% |
| 3 cm | 45% | | 35% |
| 4 cm | 59% | 60% | 33% |
| >4 cm | 72% | 33% | |

# Classification of lymphoma

A. Primary lymphoma of bowel- localized or diffuse

B. Secondary intestinal lymphoma- as part of generalized systemic process

- Histo: predominantly NHL( lymphosarcoma, reticulum cell sarcoma); 15% Hodgkin disease
- May be associated with: enlarged extraabdominal lymph nodes or spleen, malabsorption

# Radiographic types of lymphoma

(A) Polypoid / nodular ( 47% )

- Enlarged nodular folds

(B) Ulcerative( 42% )

- Ulcerative lesions, may be complicated by performation
- Aneurysmal configuration

(c) Diffuse infiltrating( 11% )

- Decreased / absent peristalsis

# CT staging

- Stage I : tumor confined to bowel wall
- Stage II : limited to local nodes
- Stage III : widespread nodal disease
- Stage IV : disseminated to bone marrow, liver, other organs

# Prognosis of lymphoma

- 71~82% 2 year survival rate in isolated bowel lymphoma
- 0% 2 year survival rate in stage IV with bowel involvement

# Pancreatic neoplasm

1. Epithelial origin
2. Acinar cell origin- ex. acinar cell carcinoma
3. Nonepithelial origin- ex.lymphoma or metastases