Patient Data

- Gender: male
- Age: 71 y/o
- Education: 小學
- Occupation: 礦工-種田-退休

住院經過

- 2003/5/2 went to our ER for complaints of epigastric pain off and on for 10 days and then admitted to GI ward.
- 2003/6/15, went to ER for epigastric pain with consciousness confused and started 2nd admission.

Present Illness

- Epigastric dull pain without radiation and poor appetite for one month
- Body weight loss 5 kg/ half year
- DM and H/T for 10 years without regular medical control in recent one month

Past History

- Medical Hx:
- Duodenal ulcer treated 20 years ago
- Pneumoconiosis for 30 years without tx
- Ulcerative colitis treated 10 years ago
- Surgical Hx:
- Nil

Physical Examination

- Vital sign: stable
- Cons: clear E4V5M6
- Conjunctiva: pale
- Breathing sounds: clear
- Heart beat: RHB
- Abd: epigastric area tenderness, bs: hyperactive

Lab Data 2003-5-2

- RBC: 3.45 HGB: 10.1 HCT: 29.1
- Lipidemia: ++ Glu: 363 Bun: 22 Cr: 2.2
- Urine Protein: + Sugar: +++ Ketone: +

Sonography 2003-5-3

- Liver: heterogeneous echogeneicity of parenchyma, no space occupy lesion
- Biliary system: GB: - IHD: - CBD: -
- Spleen: negative

- IMP: chronic parenchymal liver disease

Endoscopy 2003-5-3

- Esophagus: negative
- Stomach: a deep A1 ulcer with nodular elevated margin at PW of pre-pyloric area
- Duodenum: not checked
- Biopsy x6 at ulcer margin
- IMP: carcinoma of stomach, B III

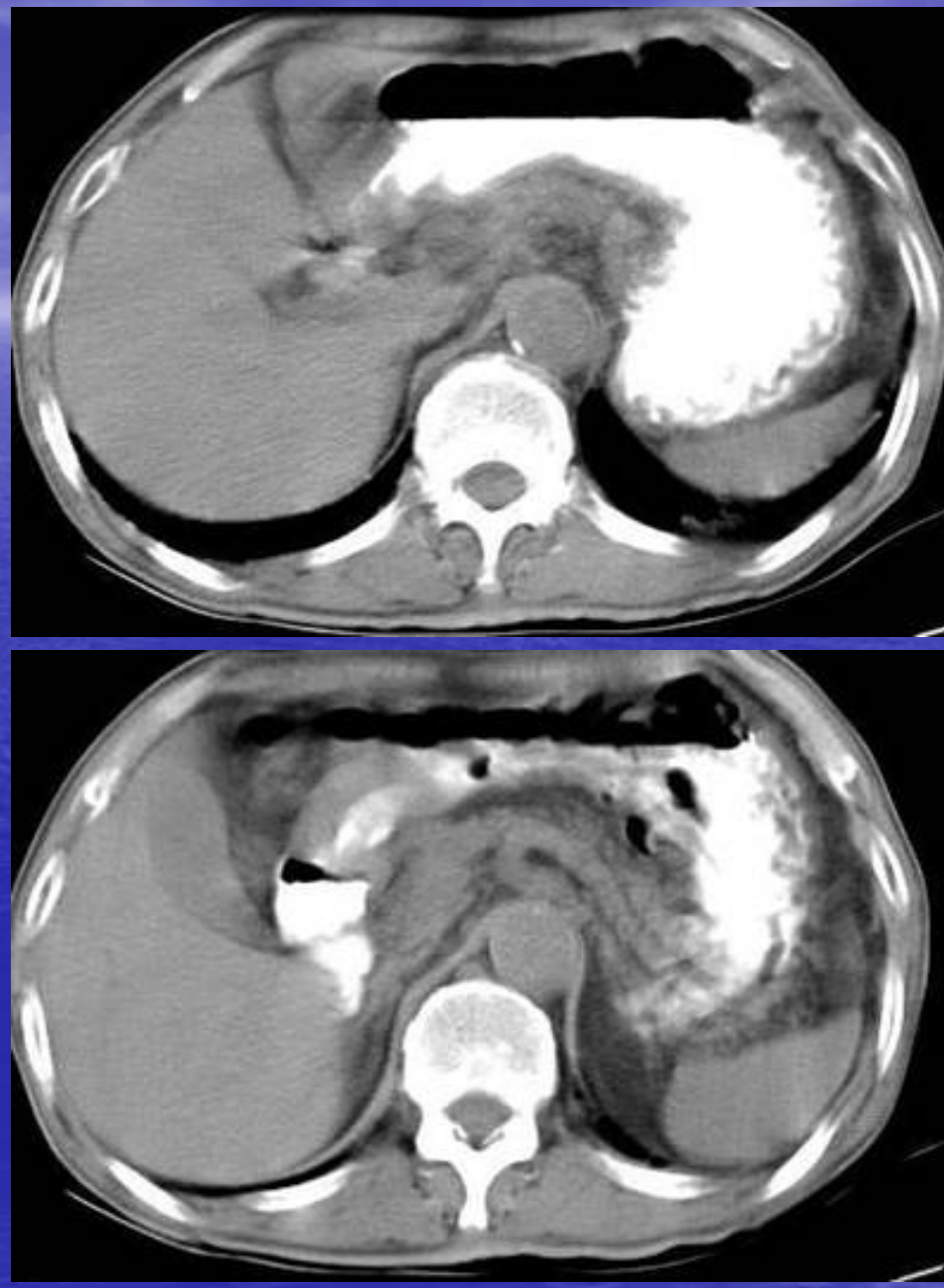
Pathology Report 2003-5-5

- Microscopically, it shows a picture of poorly-differentiated adenocarcinoma, signet ring cells are abundant. Focal intestinal metaplasia and ulcer debris are seen

- IMP: adenocarcinoma, poorly-differentiated

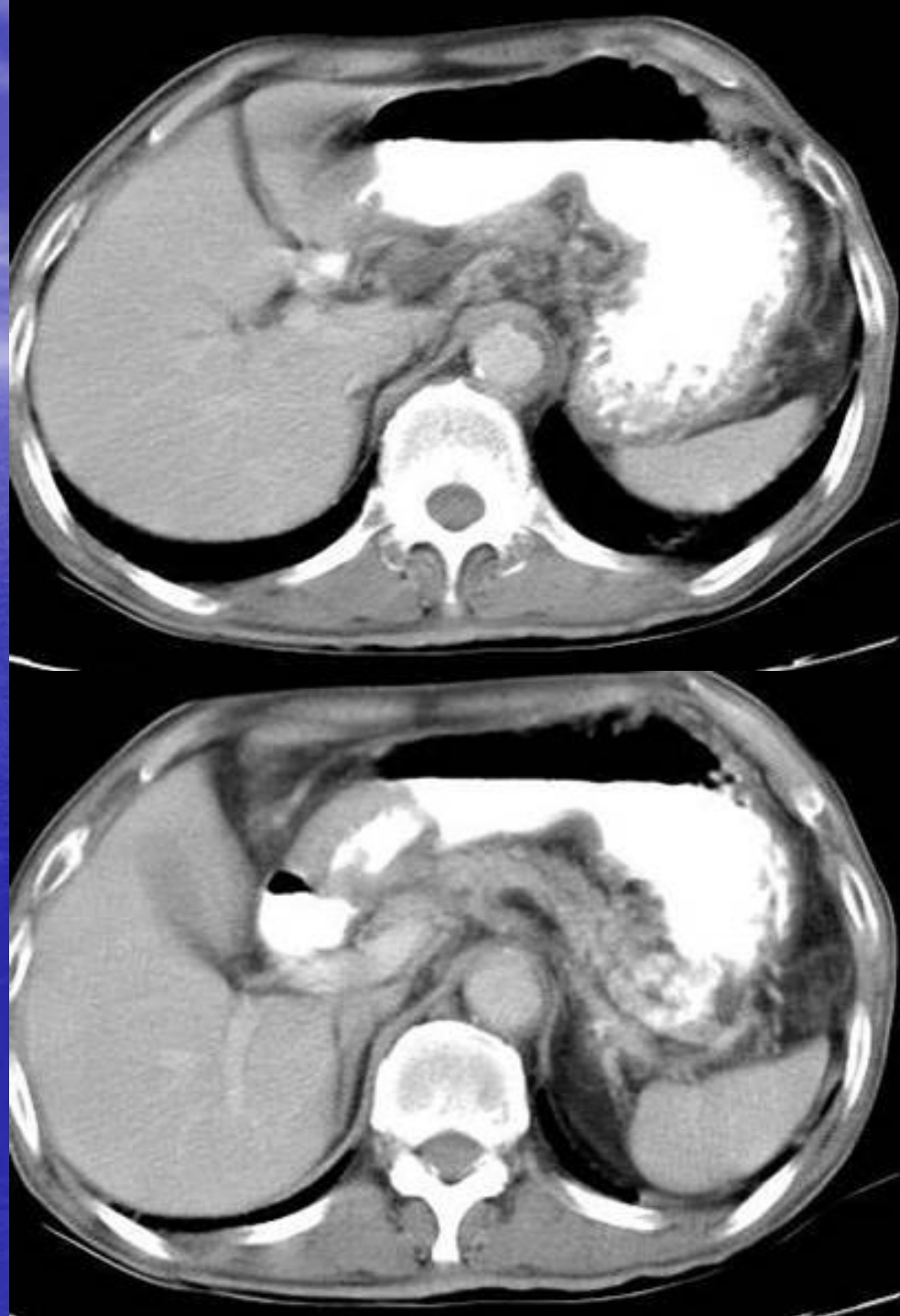
CT Imaging 2003-5-5

- Some nodular mass at retro-gastric area of distal body are seen
- Circumferential thickened gastric wall (1.2cm) at distal gastric body and antrum portion(4.3cm in length)



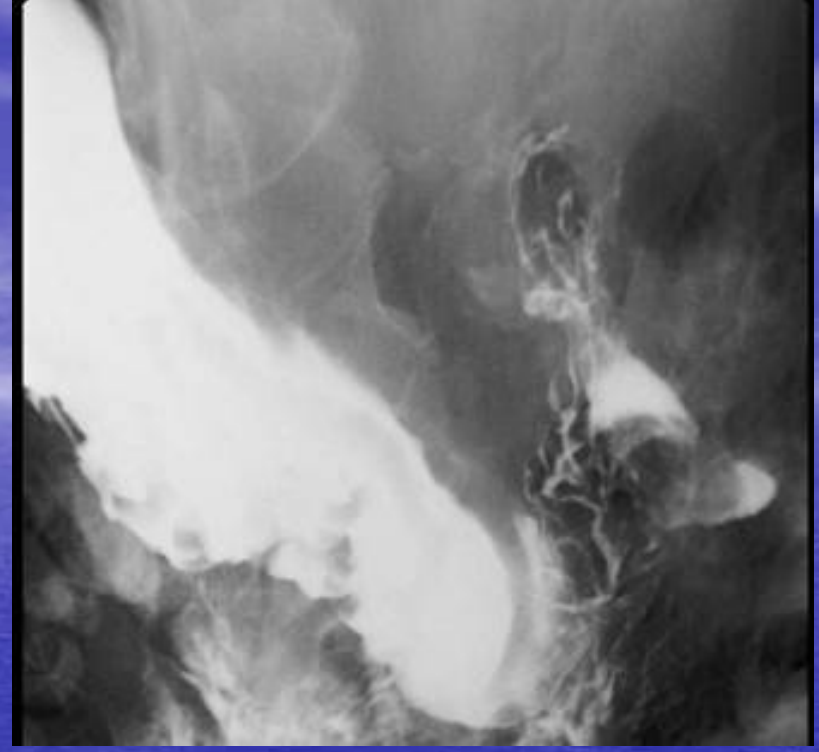
CT Imaging 2003-5-5

- Circumferential thickened gastric wall (1.2cm) at distal gastric body and antrum portion(4.3cm in length)
- IMP: Ca involve distal gastric body and antrum portion, enlarge regional LN.



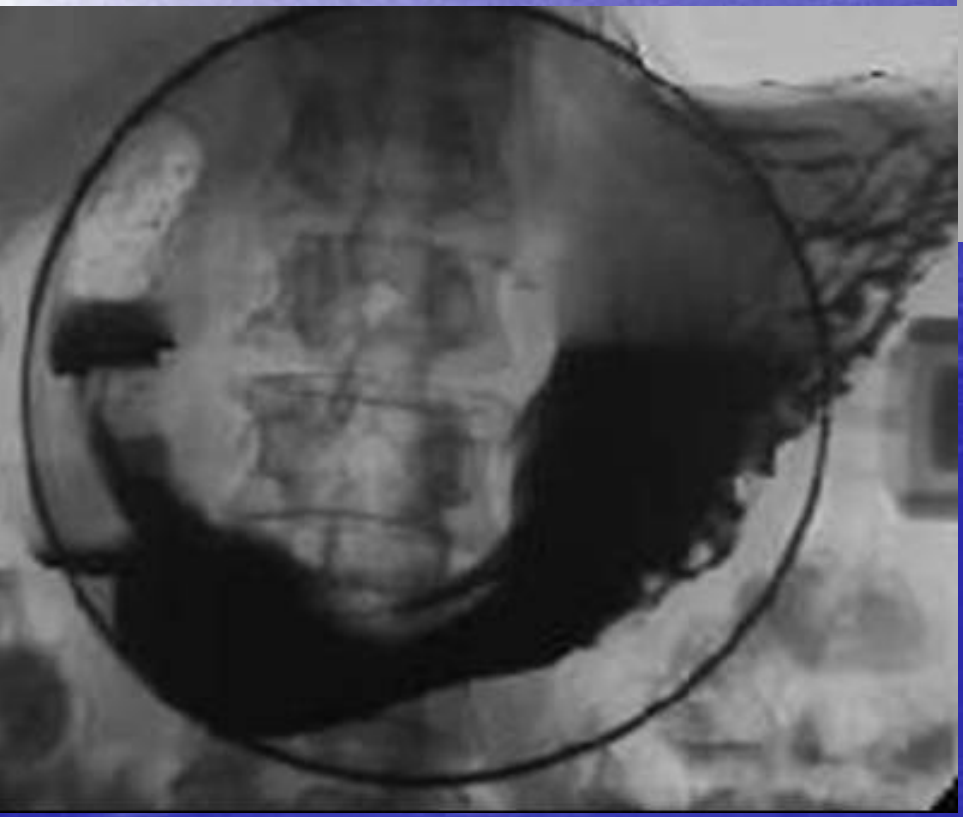
UGI series report 2003-5-6

- Concave, crescentic indentation to the base of duodenal bulb and distal body
- Relatively thickened and irregular mucosa fold at middle and distal body noted



UGI series report 2003-5-6

- Circumferential narrow of antrum and pyloric canal of stomach (3.9-4.5 cm)



IMP: annular constricting carcinoma, antrum and pyloric canal

Chest X-ray 2003-6-15

- Diffusely peribronchial infiltrates at bil lung field
- Mild tortuous of aortic knob with calcification
- Ill-defined, radiopaque patches are noted at Rt and Lt upper lung field

KUB 2003-6-15

- Nonspecific gaseous pattern of bowel
- Normal psoas shadow
- Fecal material distension of pelvis may obscure possible pelvic pathology

Differential Diagnosis

Filling defect

- 1. carcinoma – commonest
- 2. leiomyoma
- 3. polyps
- 4. ulcers
- 5. bezoar

D & D filling defect

carcinoma	leiomyoma	polyps	ulcers
Irregular filling defect	Round filling defect	Single or multiple filling defect	Barium pooling or projection from the lumen
Carman meniscus	absent	absent	absent
Shoulder sign	absent	absent	absent
Irregular, fuse folds	Smooth folds	Smooth folds	Smooth folds
Absent Hampton's line	Target sign	Sharp angle of the mucosa	Present Hampton's line

Narrow of antrum and pyloric canal

- 1. carcinoma of the antrum
- 2. lymphoma
- 3. peptic ulcer scarring

D & D narrow of antrum and pyloric canal

Carcinoma of antrum	lymphoma	peptic ulcer scarring
Wall thickening mean = 1.8 cm, focally thick	Very thick, mean = 4cm, homogeneously thick	Thickened of gastric folds
Originate from pylorus and moving upward	Irregular narrowing affected antrum and duodenum	Cause intense spasm in acute stage and fibrosis in chronic stage
Without peristaltic contraction	Peristalsis usually maintained	Normal peristalsis

Impression

- 1. Gastric adenocarcinoma
- 2. Pneumoconiosis
- 3. R/o lung metastasis

Gastric ca

- The second most common cause of cancer-related death in the world.
- Many Asian countries have very high rates of gastric cancer.
- Remains a difficult disease to cure primarily because most patients present with advanced disease.

Gastric ca

- 40% of cancers develop in the lower part, 40% in the middle part, and 15% in the upper part.
- Recently, lesions discovered in the proximal aspect of the stomach and gastroesophageal junction has increased.

Gastric ca

- Adenocarcinoma constitutes 90% of all gastric malignancies. The second most common gastric malignancies are lymphomas.
- Others including leiomyosarcomas (2%), carcinoids (1%), adenoacanthomas (1%), and squamous cell carcinomas (1%)

Gastric ca

- The median age at diagnosis is 65 years
- Early disease has no associated symptoms. Most symptoms of gastric cancer reflect advanced disease. Patients may complain of indigestion, nausea or vomiting, dysphagia, postprandial fullness, loss of appetite, and weight loss.

Gastric ca

- Causes: including diet, Helicobacter pylori infection, previous gastric surgery, pernicious anemia, adenomatous polyps, chronic atrophic gastritis, genetic factors, and previous radiation therapy.
- Gastric cancer most likely represents the result of multiple events occurring in an appropriate environment.

Gastric ca

- Esophagogastroduodenoscopy
  - This relatively safe and simple procedure provides a permanent color photographic record of the lesion.
  - This procedure also is the primary method for obtaining a tissue diagnosis of suspected lesions.

Gastric ca

- Double-contrast examinations of the upper GI tract remain a useful alternative to endoscopy and have similar sensitivity in the detection of gastric cancer.
- Chest radiograph: This is done to evaluate for metastatic lesions.

Gastric ca

- CT scan or MRI of the chest, abdomen, and pelvis
  - assess the local disease process and evaluate potential areas of spread (ie, enlarged lymph nodes, possible liver metastases).
  - Some patients' tumors are judged surgically unresectable on the basis of radiographic criteria.

Gastric ca

- **Staging:** The 1997 American Joint Committee on Cancer (AJCC) *Cancer Staging Manual* presents the following TNM classification system for staging gastric carcinoma:
- Primary tumor
  - TX = primary tumor (T) cannot be assessed
  - T0 = no evidence of primary tumor
  - Tis = carcinoma in situ, intraepithelial tumor without invasion of lamina propria
  - T1 = tumor invades lamina propria or submucosa
  - T2 = tumor invades muscularis propria or subserosa
  - T3 = tumor penetrates serosa (ie, visceral peritoneum) without invasion of adjacent structures
  - T4 = tumor invades adjacent structures
- Regional lymph nodes
  - NX = regional lymph nodes (N) cannot be assessed
  - N0 = no regional lymph node metastases
  - N1 = metastasis in 1-6 regional lymph nodes
  - N2 = metastasis in 7-15 regional lymph nodes
  - N3 = metastasis in more than 15 regional lymph nodes
- Distant metastasis
  - MX = distant metastasis (M) cannot be assessed
  - M0 = no distant metastasis
  - M1 = distant metastasis

Gastric ca

- Prognostic features
  - Are depth of cancer invasion through the gastric wall and presence or absence of regional lymph node involvement.
  - The greater the number of involved lymph nodes, the more likely the patient is to develop local and systemic failure after surgery.

Gastric ca

- spread directly, via lymphatics, or hematogenously.
- Direct extension into the omenta, pancreas, diaphragm, transverse colon or mesocolon, and duodenum is common.
- The abundant lymphatic channels within the submucosal and subserosal layers of the gastric wall allow for easy microscopic spread.
- Lymphatic drainage is through numerous pathways and can involve multiple nodal groups (eg, gastric, gastroepiploic, celiac, porta hepatic, splenic, suprapancreatic, pancreaticoduodenal, paraesophageal, and paraaortic lymph nodes).
- spreads hematogenously, and liver metastases are common.

Gastric ca

- **Surgical Care:**
- a total gastrectomy (if required for negative margins), an esophagogastrectomy for tumors of the cardia and gastroesophageal junction, and a subtotal gastrectomy for tumors of the distal stomach.
- maintain a 5-cm surgical margin proximally and distally to the primary lesion.

Gastric ca

- Outcome
  - The 5-year survival rate for a curative surgical resection ranges from 30-50% for patients with stage II disease and from 10-25% for patients with stage III disease.
  - The recent Intergroup 0116 randomized study offers evidence of a survival benefit associated with postoperative chemoradiotherapy.

THE END THANKS A LOT!