General Data

- Name: 王○松
- Sex: male
- Age: 68 y/o
- Birth place: Taiwan
- Date of Admission: 92.10.21
- Date of Discharge: 92.11.19

Chief complaint

- Dark-green colored stool passage twice yesterday

Present Illness (1)

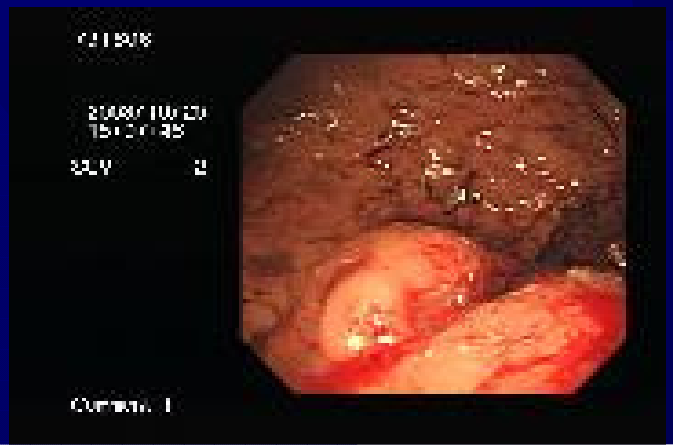
- HTN for 6 years under regular control
- DM for 5 years under regular control
- Gout for 11 years under regular control
- Peptic ulcer history for 20 years
- 91.11.20
  - Due to black stool :admitted to 長庚醫院
  - EGD:gastric ulcer in middle body
  - Biopsy:focal low grade dysplasia

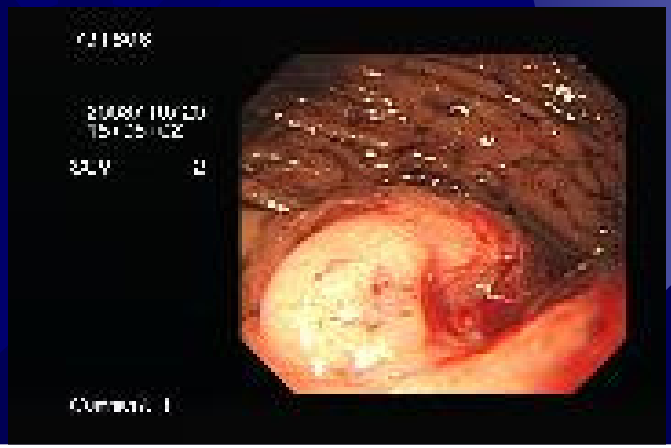
Present Illness (2)

- 93.3
  - admitted to 長庚醫院
    - melena
    - vomiting with coffee-ground material
  - Ulcer biopsy:
    - chronic inflammation
    - cluster of mildly to moderately dysplasia glands
- 93.10.20
  - Came to our ER
  - Dark-green colored stool

Present Illness (3)

- 92.10.20 at ER:
  - Panendoscope:
    - protruding hard tumor with central ulceration with active bleeding
  - Impression :submucosal tumor
  - Admitted for further management



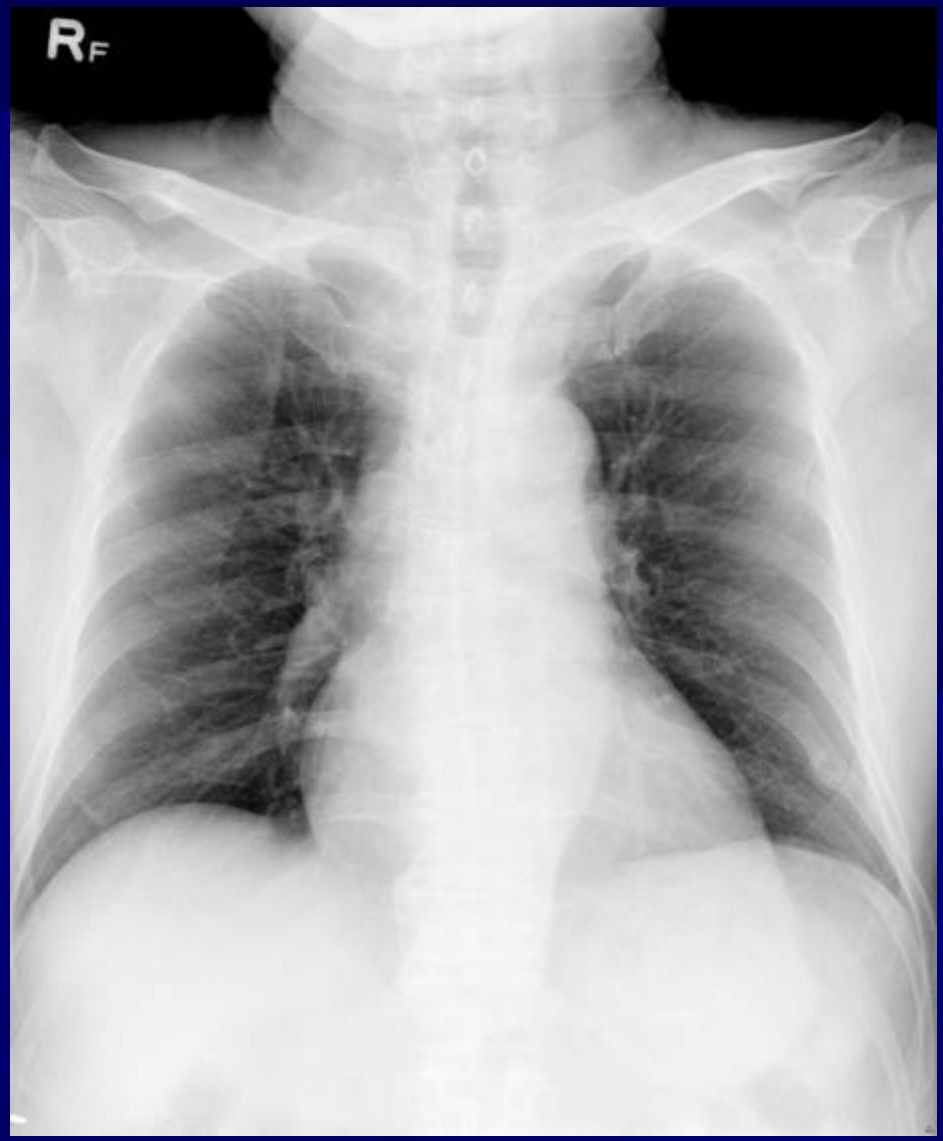


Vital sign 92.10.20

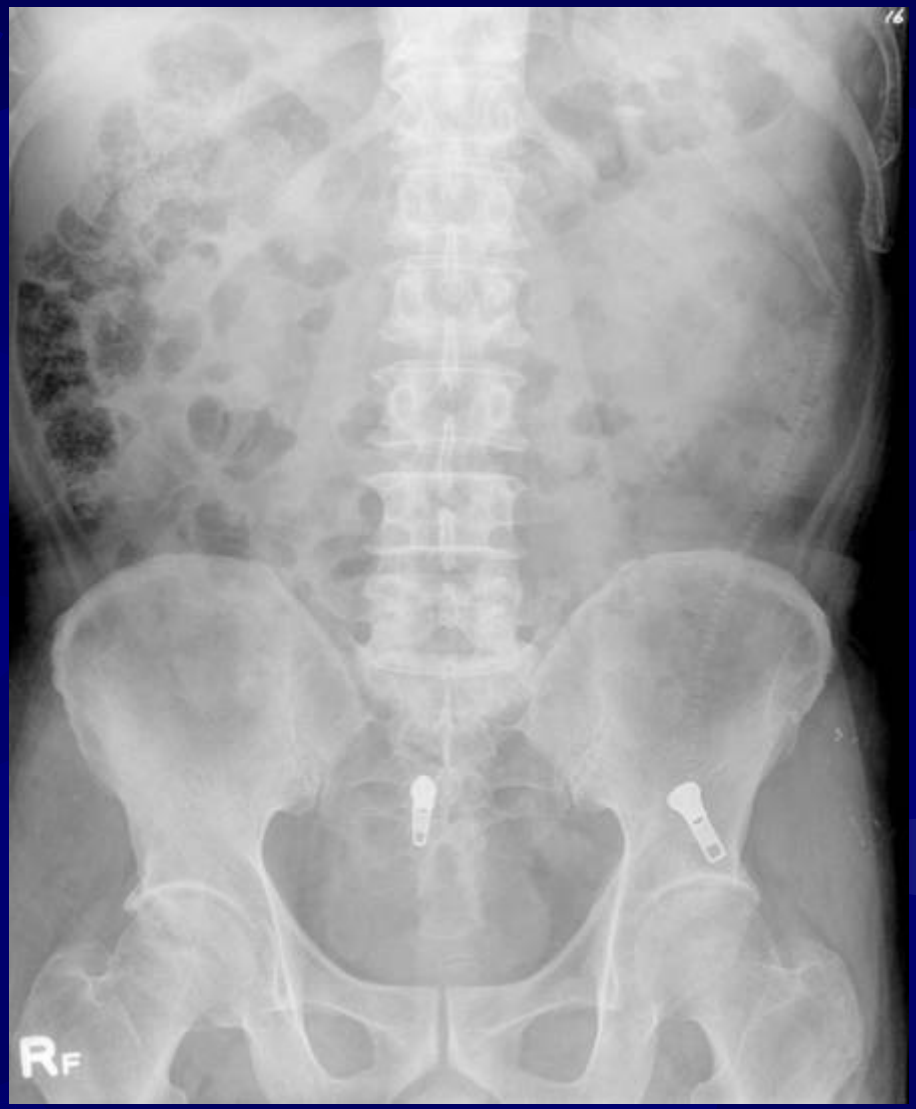
- BP=123/69
- T=36.7
- P=74
- R=16

Lab Data 92.10.20

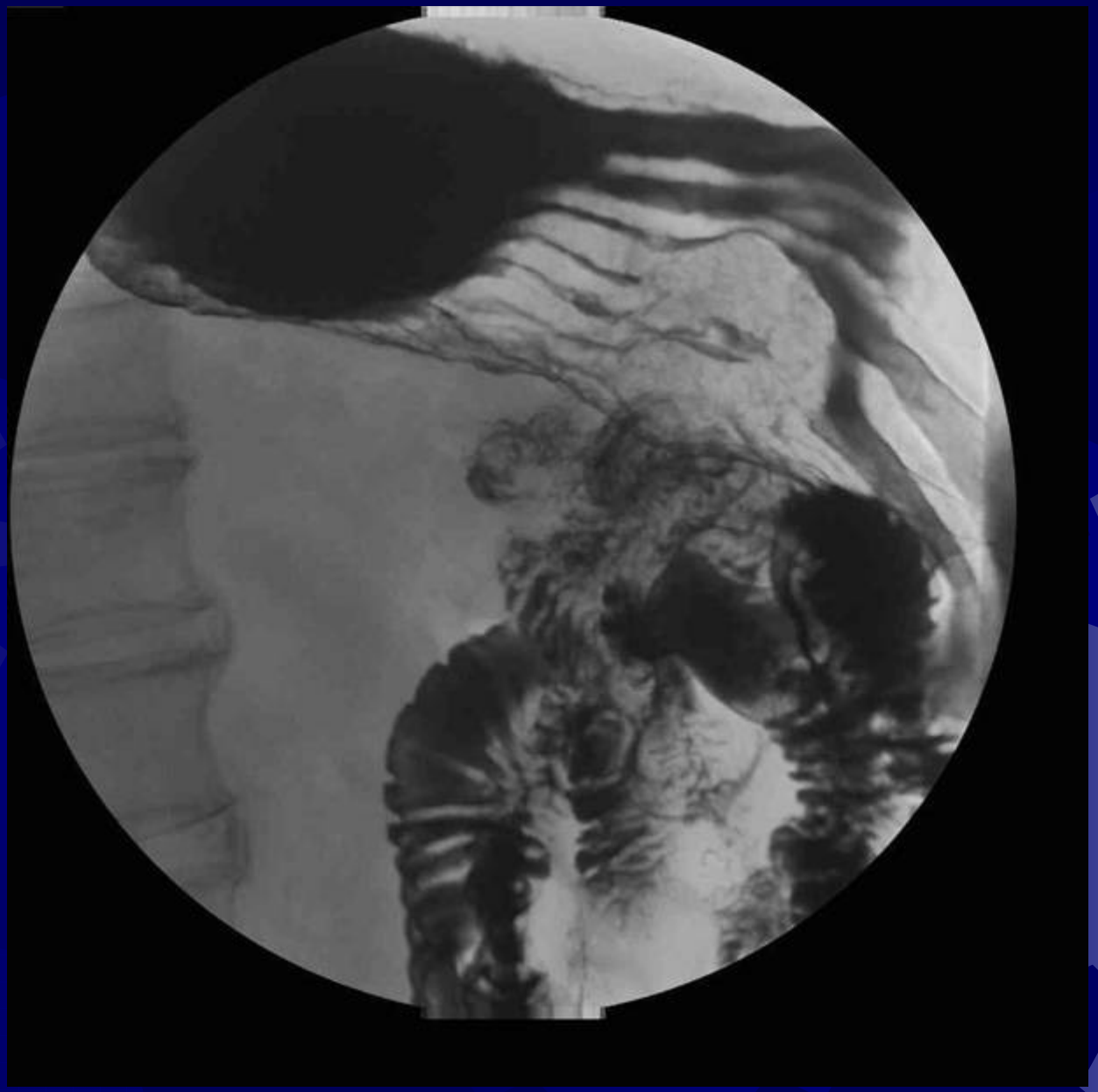
CEA	1.13
occult blood(stool)	++++
Glucose	154
BUN	62
Creatinine	1.7
WBC	9.49
%NEUT	78.3
RBC	2.77
Hb	8.4



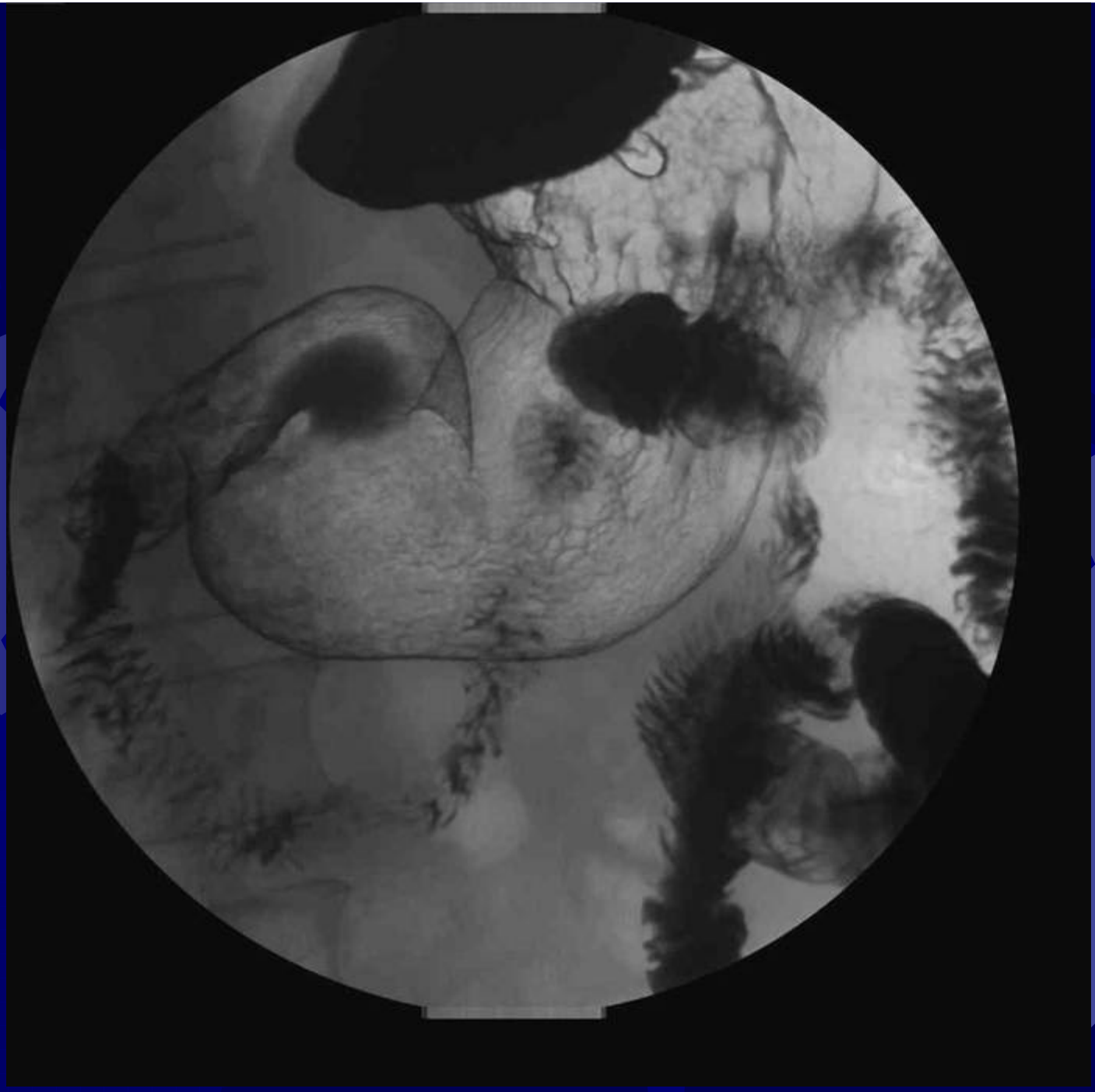
- Chest X-ray 92.10.20
  - Cardiomegaly with globular configuration,probably pericardial effusion,valvular dx,cardiomegaly or CHD.

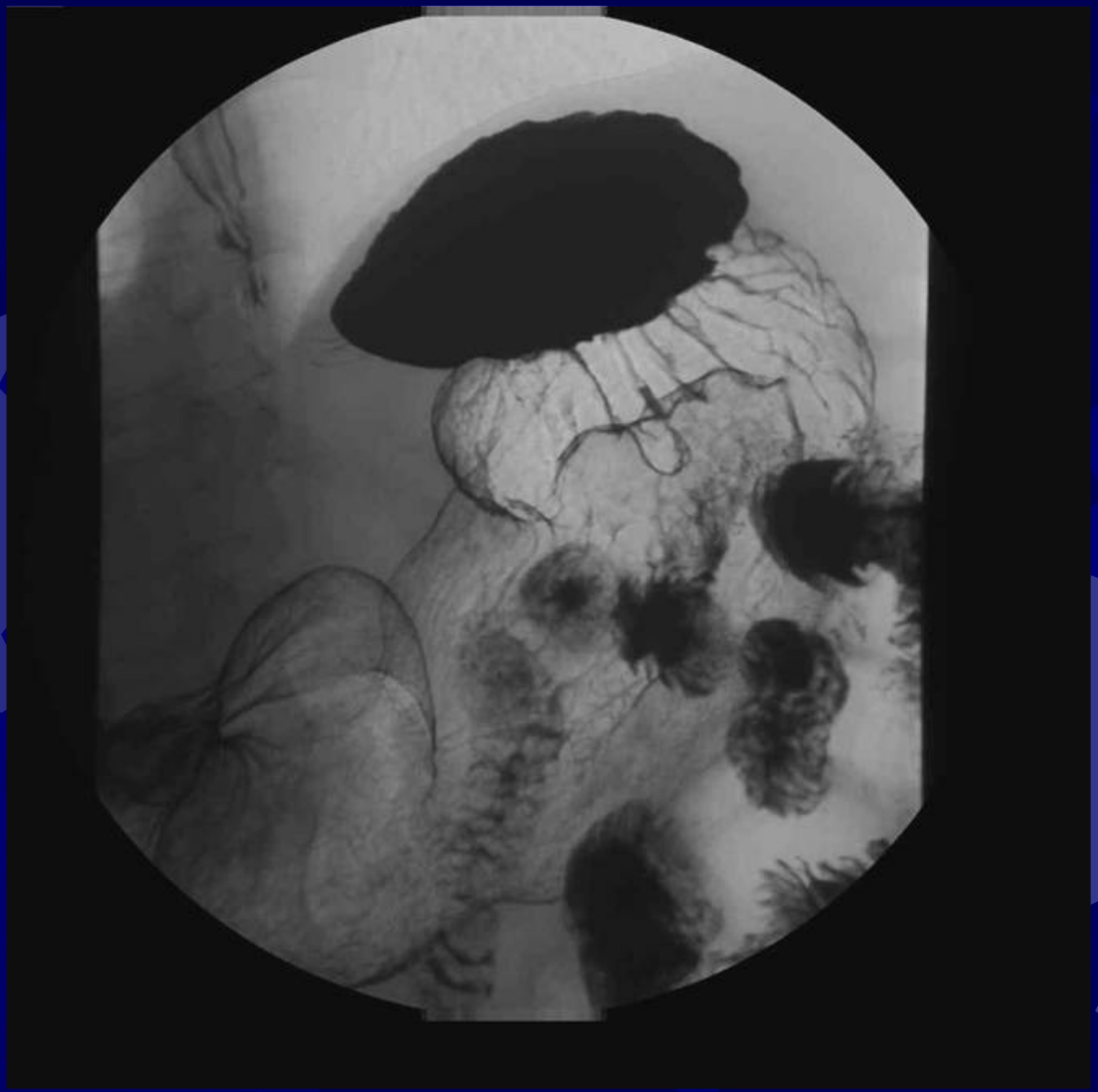


- KUB 92.10.20



- 92.10.24 UGI series





UGI finding

- a partially ***well-defined, lobulated mass*** (measuring approximately 3.8 cm x 4.0 cm in dimension)
- with a ***central ulceration*** (about 0.6 cm in diameter)
- located at the lesser curvature side of high to middle gastric body.
- Somewhat smoothly widening of the overlying mucosa are noted.

Differential Diagnosis

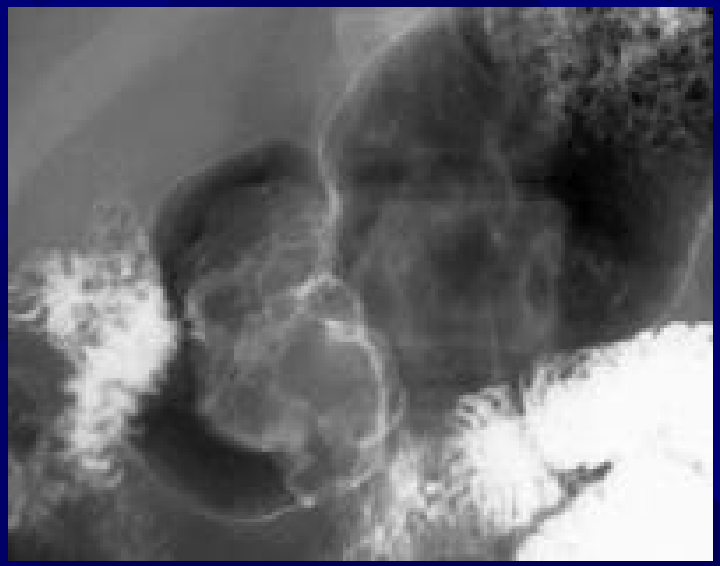
- Gastric ulcer
- Gastric cancer
- submucosal lymphoma
- Gastrointestinal Stromal Tumor (GIST)

Gastric cancer 1

- Early gastric cancer
  - mucosa or submucosa
  - classified into 3 types:
    - Type I: elevated and protrude more than 5 mm into the lumen.
    - Type II: superficial lesions that are elevated (IIa), flat (IIb), or depressed (IIc).
    - Type III: shallow, irregular ulcers surrounded by nodular, clubbed mucosal folds.

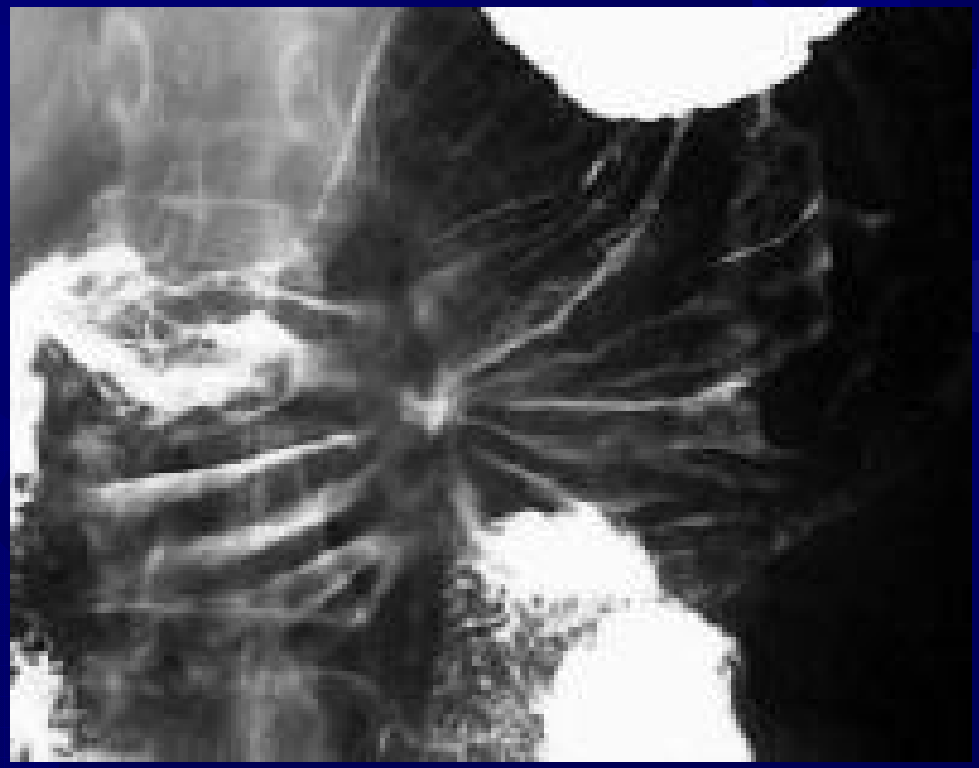
Gastric cancer 2

- Advanced carcinoma
  - ***Polypoid carcinoma***
    - ***lobulated masses that protrude into the lumen***
    - ***may contain 1 or more areas of ulceration.***



Gastric cancer 3

- ulcerated carcinoma
  - an irregular crater is located in a rind of malignant tissue.



Gastric cancer 4

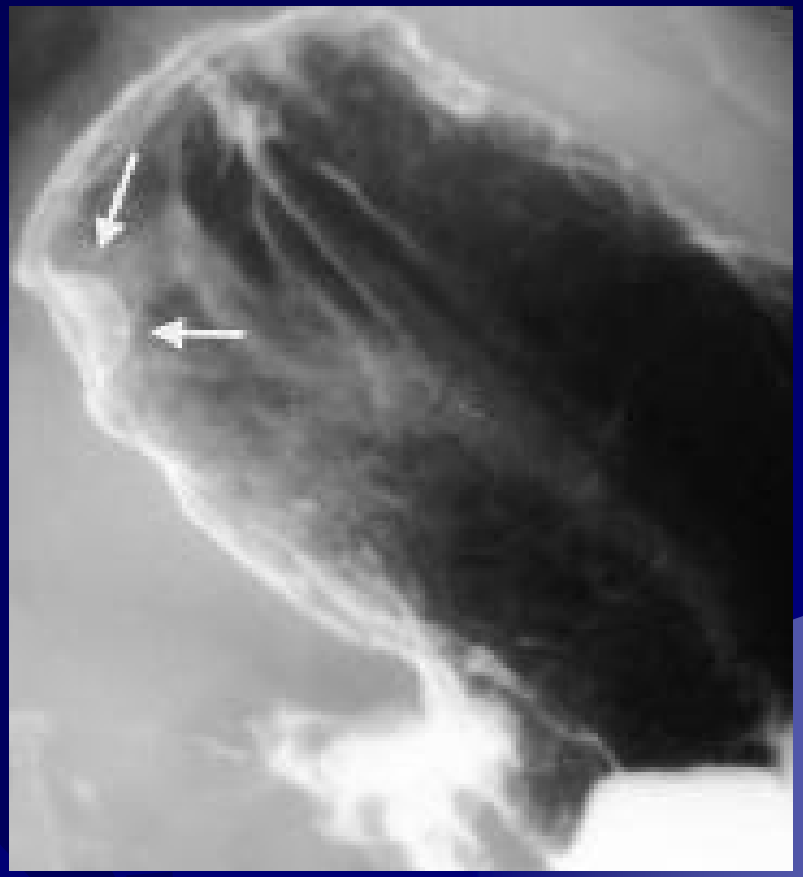
- Infiltrating carcinomas
  - irregular narrowing of the stomach, with nodularity or spiculation of the mucosa

Pic.:Infiltrating carcinoma involving the greatercurve of the stomach.

submucosal lymphoma

- Because of the thickening of gastric rugae, **lymphoma** must be included in the differential diagnosis
- The above diagnoses could be excluded by pathology
- **lymphoma** should be strongly considered if the distal stomach or lesser curvature is involved with loss of elasticity of gastric wall.

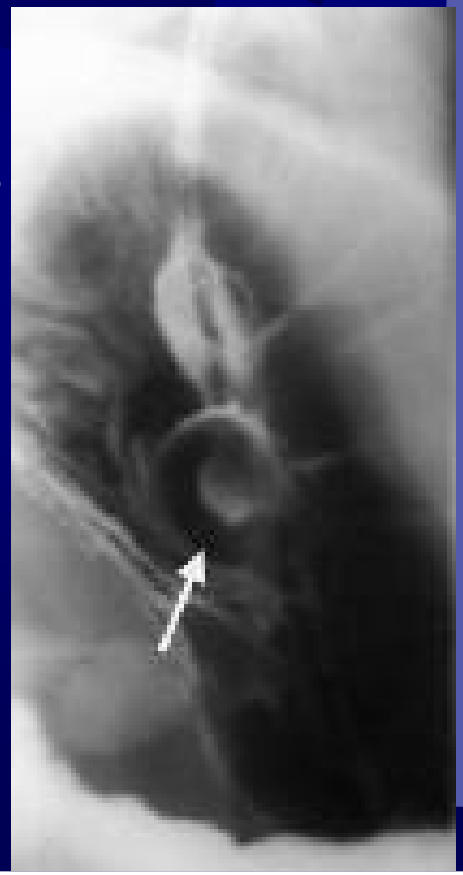
GIST 1



- intramural masses
- tumor margins
  - smooth, ulceration, irregularity
- tumor borders
  - form right or obtuse angles with the adjacent visceral wall.
  - the intraluminal surfaces often have well-defined margins

GIST 2

- tumors are intramural
  - extramucosal, the overlying mucosa can be intact
- overlying mucosal ulcerations
  - common in malignant GISTs.
  - ulcerations fill with barium
  - causing a bull's eye or target-lesion appearance



OP finding

- 92-11-03 Radical subtotal gastrectomy
- ascites(-)
- Submucosal tumor about 3 cm in diameter
- located at posterior wall of midbody
- with central ulcer
- Perigastric LN grossly negative

Pathology

- Adenocarcinoma
- Intestine, small, duodenum, cuff, radical subtotal gastrectomy, no specific change
- Lymph node, group 1 (0/13)
- Lymph node, group 2, (0/8)
- Omentum,total omentectomy, no specific change

Pathology

- intestinal type
- moderately differentiated adenocarcinoma
- tubular or glandular pattern
- infiltrating in desmoplastic stroma
- Invaded:
  - through the muscularis propria
  - deeply into the serosal soft tissue
  - no serosa exposure.

Discussion :stomach adenocarcinoma 1

- Symptom and sign:
  - Early disease
    - no associated symptoms
  - advanced disease
    - complaint of indigestion, nausea or vomiting, dysphagia, postprandial fullness, loss of appetite, and weight loss.

Discussion : stomach adenocarcinoma 2

- Late complications
  - peritoneal and pleural effusions;
  - obstruction of the gastric outlet,
  - bleeding in the stomach
  - intrahepatic jaundice caused by hepatomegaly;
  - extrahepatic jaundice

Discussion : stomach adenocarcinoma 3

- Lab Studies:
  - complete blood cell count
    - identify anemia,
    - caused by bleeding, liver dysfunction, or poor nutrition.
    - Approximately 30% of patients have anemia
  - Electrolyte panels and liver function tests
    - characterize the patient's clinical state

Discussion : stomach adenocarcinoma 4-1

- Esophagogastroduodenoscopy(EGD)
  - safe and simple procedure
  - permanent color photographic record of the lesion
  - primary method for obtaining a tissue diagnosis of suspected lesions

Discussion : stomach adenocarcinoma 4-2

- Double-contrast upper GI series
  - detects large primary tumors
  - detects their spread to the esophagus and duodenum (particularly if the tumor is small and submucosal)
  - The smaller the primary lesion: use of double-contrast and cineradiography.

Discussion : stomach adenocarcinoma 4-3

- Chest radiograph
  - This is done to evaluate for metastatic lesions

Discussion : stomach adenocarcinoma 4-4

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

Discussion : stomach adenocarcinoma 4-5

- Ultrasound
  - assessment of the tumor stage.
  - Endoscopic sonography is useful as a staging tool when the CT scan fails to find evidence of T3, T4, or metastatic disease.
  - neoadjuvant chemoradiotherapy for patients with locally advanced disease rely on endoscopic ultrasound data to improve patient stratification

Discussion : stomach adenocarcinoma 5-1

- Sugical treatment
  - Total gastrectomy
  - Esophagogastrectomy
    - cardia and gastroesophageal junction
  - Subtotal gastrectomy
    - tumors of the distal stomach.
  - Maintain a 5-cm surgical margin
    - proximally and distally to the primary lesion
- Chemotherapy

Discussion : stomach adenocarcinoma 5-2

- Lymph node dissection 1
  - extent of the lymph node dissection is somewhat controversial.
  - nodal involvement indicates a poor prognosis
  - aggressive surgical approaches to attempt to remove involved lymph nodes

Discussion : stomach adenocarcinoma 5-3

- Lymph node dissection 2
  - patients were randomized to an R1 or a R2 nodal dissection
  - local regional recurrence and overall survival were similar
  - Critics of extended nodal dissections argue that the apparent benefit associated with extended lymph node dissection reflects stage migration

Discussion : stomach adenocarcinoma 6

Stage	TNM	5-Year Survival, %
0	TisN0M0	90
IA	T1N0M0	59
IB	T2N0M0	44
II	T1N2M0 T2N1M0 T3N0M0	29
IIIA	T2N2M0 T3N1-2M0	15
IIIB	T4N0-1M0	9
IV	T4N2M0 T1-4N0-2M1	3

Discussion : stomach adenocarcinoma 7

- Prognostic features
  - the depth of tumor invasion
  - gross appearance
  - size
  - location of the tumor
  - number of metastatic lymph nodes