

General Data

- ✦ Sex: male
- ✦ Age: 68 y/o
- ✦ Birth date: 51.04.30
- ✦ 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)

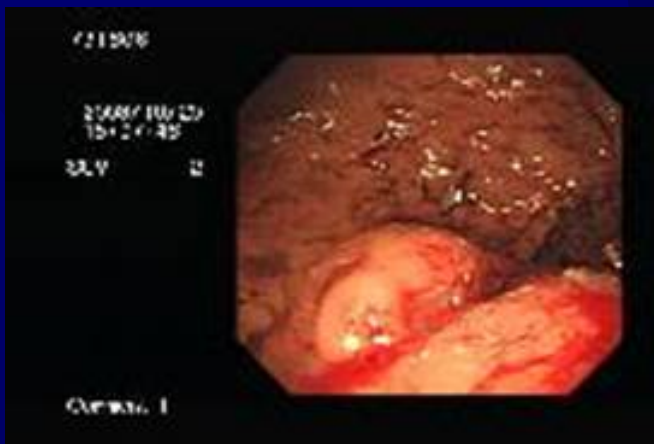
☀ 92.10.20 at ER:

☀ 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 |

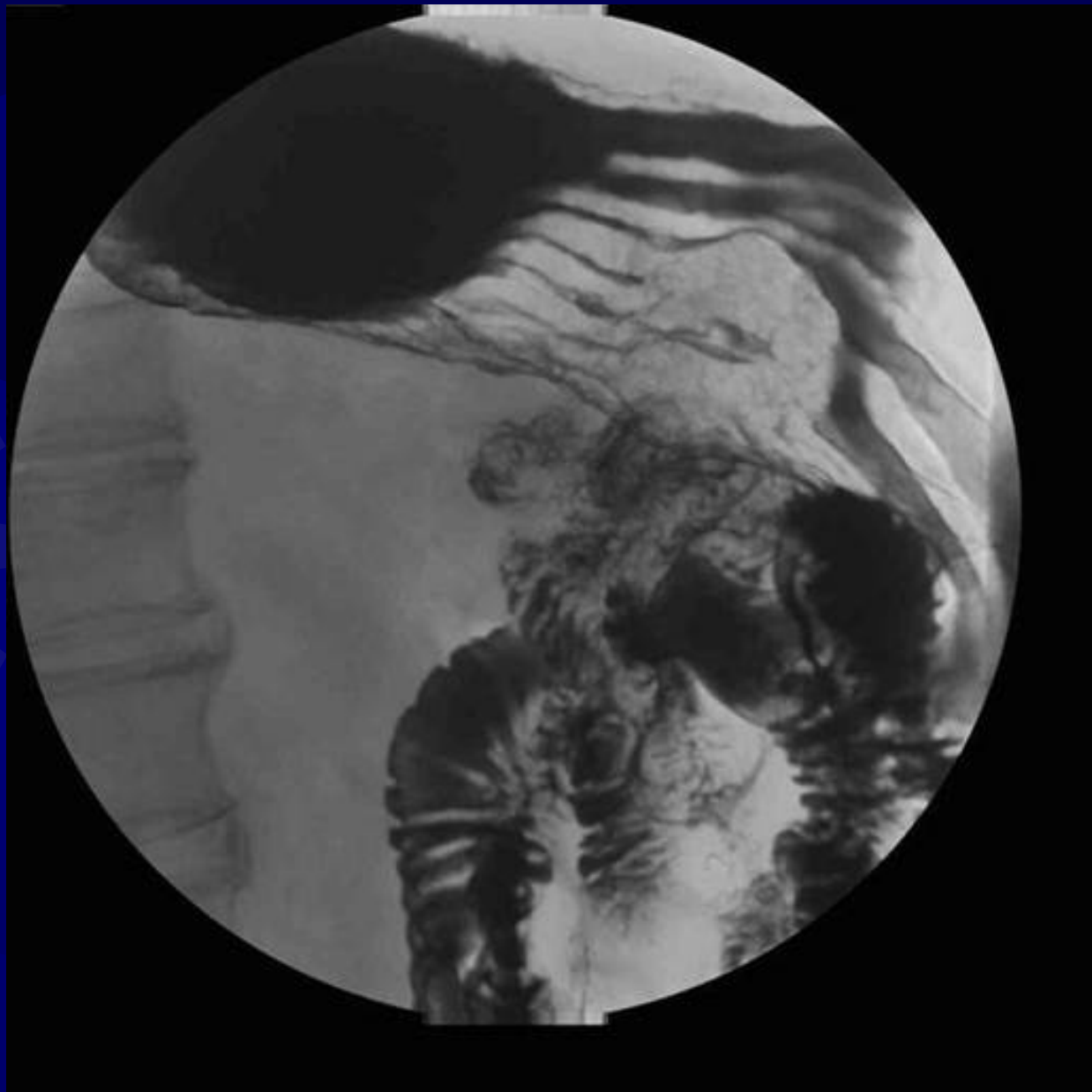


☀ Chest X-ray 92.10.20

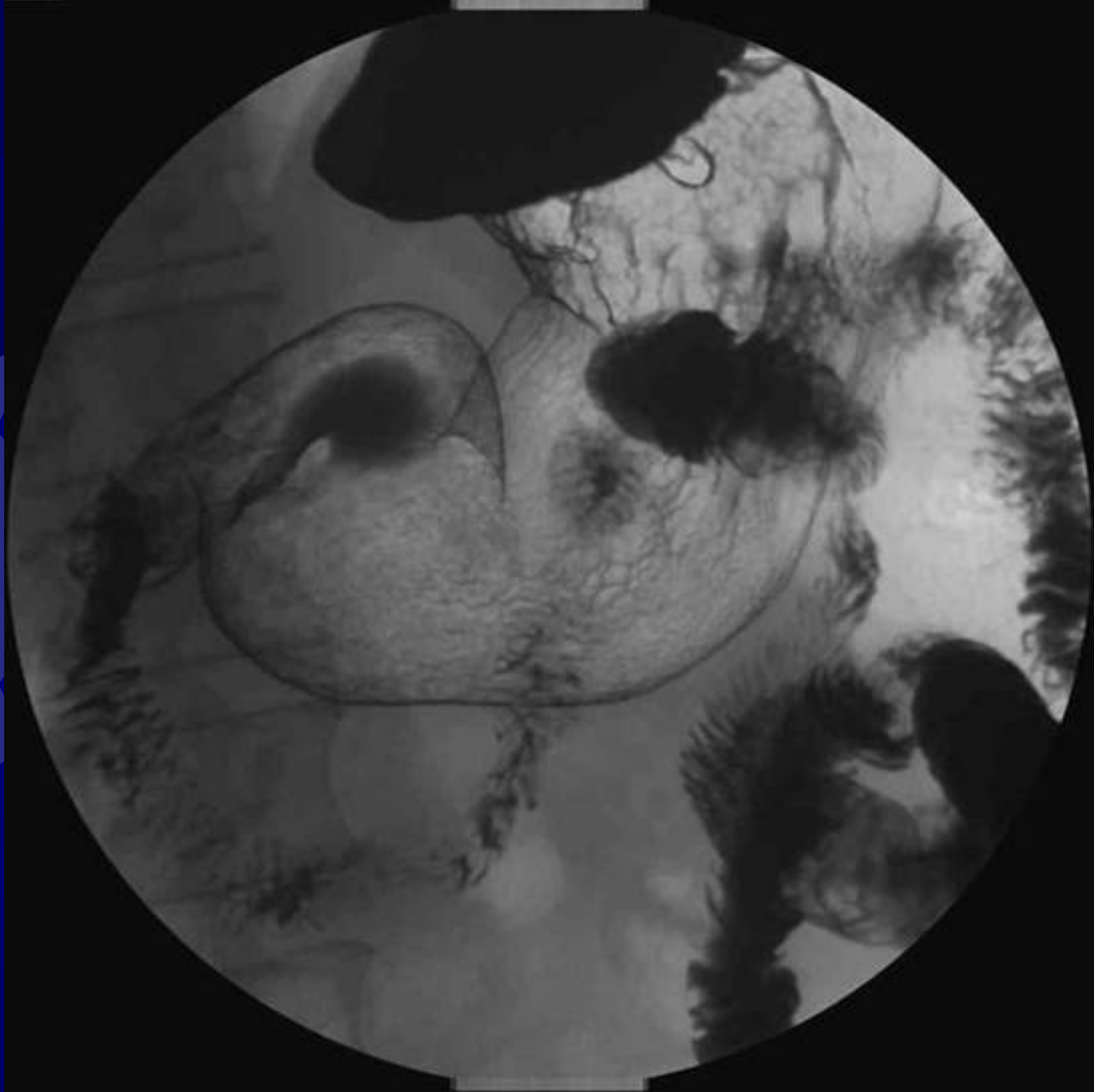
- Cardiomegaly with globular configuration, probably pericardial effusion, valvular dx, cardiomegaly or CHD.

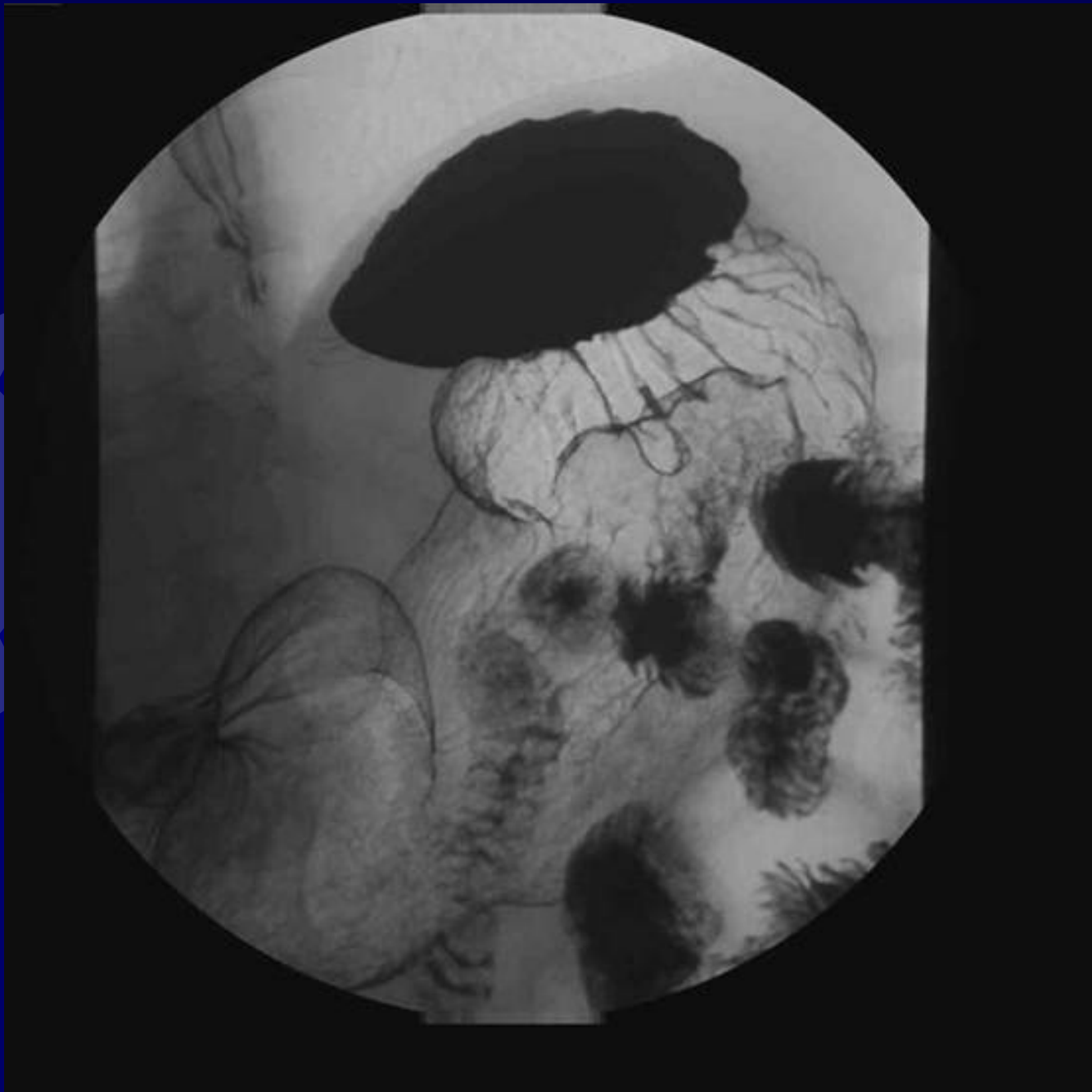


✦ KUB 92.10.20



✦ 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

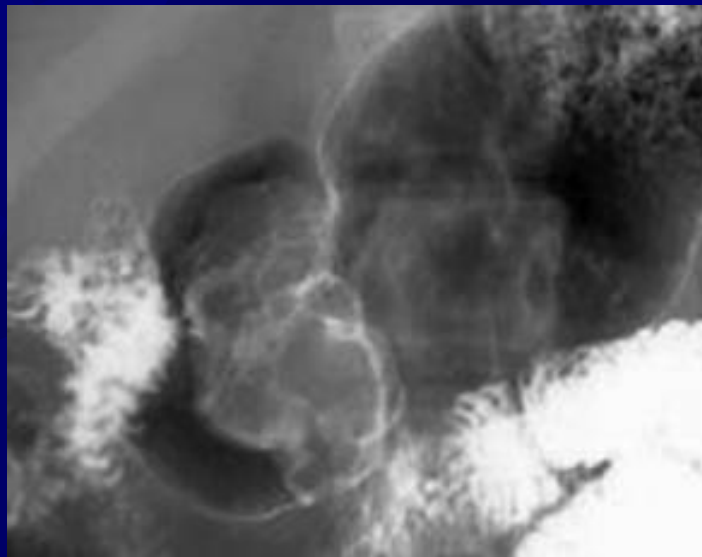
- ★ mucosa or submucosa
- ★ classified into 3 types:
 - Type I: elevated and protrude more than 5 mm into the lumen.
 - Type II: superficial lesions that are elevated (IIa), flat (IIb), or depressed (IIc).
 - Type III: shallow, irregular ulcers surrounded by nodular, clubbed mucosal folds.

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 greater curve 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

The background features a dark blue field filled with various shades of blue gears of different sizes, some overlapping. On the left side, there is a vertical strip with a colorful, textured pattern of gears in shades of orange, yellow, and brown.

**THANKS
FOR
YOUR
ATTENTION**