



General history 93-07-23

basic information

- 61 years old
- male



General history

Chief complaint

- intermittent post-prandial abdominal fullness for 10 years



General history

Present illness

- a 61 years old male has hypertension with regular medication control for 3 years .
- c/o intermittent post-prandial abdominal fullness for 10 years and exacerbating after fatty food .
- Lose of body weight for 4 kg in recent half year .
- No symptoms of abdominal pain , nausea , vomit , poor appetite , tarry stool .
- Went to 竹東hospital , PES was performed
→ low grade B cell lymphoma



General history

Physical examination

- No specific finding

Lab data

- WBC 4040/uL , MCV [80-99] 68.4 fL
MCH [27-31] 22.3 pg , MCHC [33-37] 32.5 g/dL
MICRO +++ , HYPO ++
Bilirubin T [0.2-1.2] 1.3 mg/dl



PES on 93.07.17

- Esophagus : mild hiatal hernia
- Stomach : superficial gastritis , antrum
- two polypoid tumors with surface nodularity and ulcers at high body , GCS
- several nodular lesion near cardia at fundus area also noted
- giant folds formation at body , GCS
- one external compression at high body, ant. wall also noted; the distensibility of the stomach is OK.
- Endoscopic diagnosis : multiple gastric tumors, R/O lymphoma



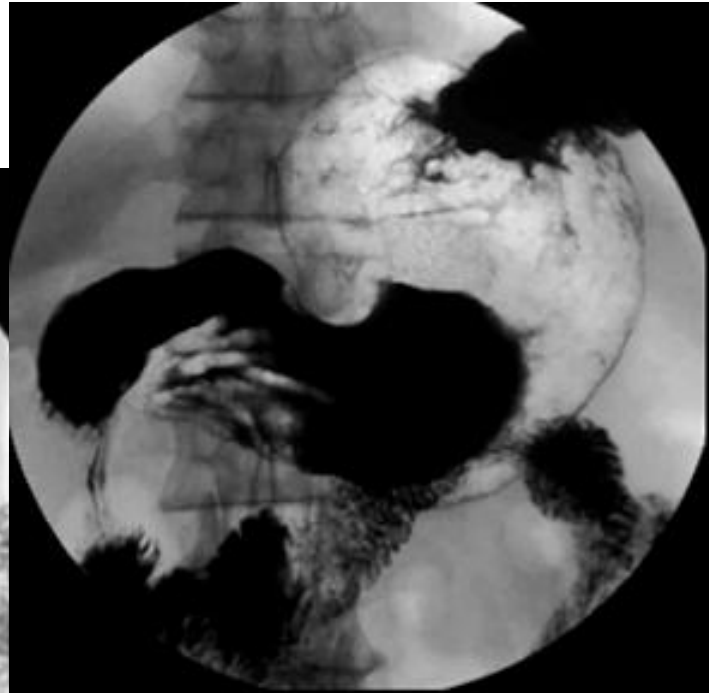
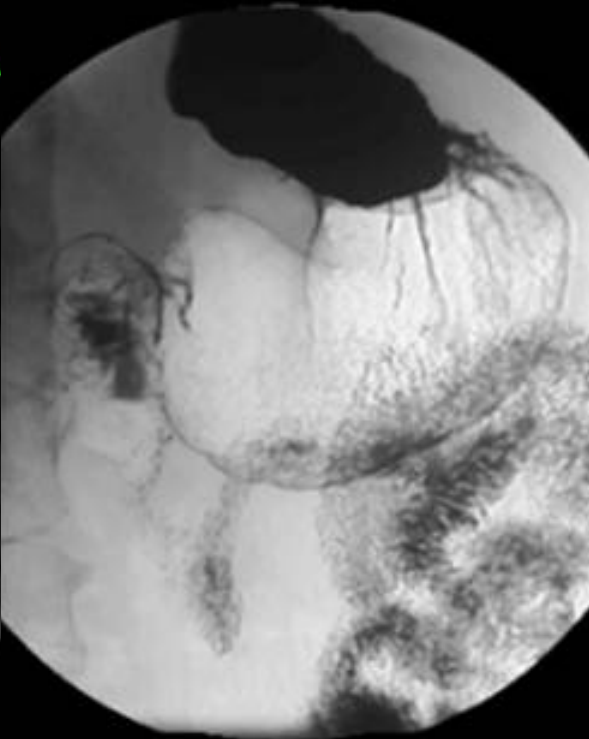
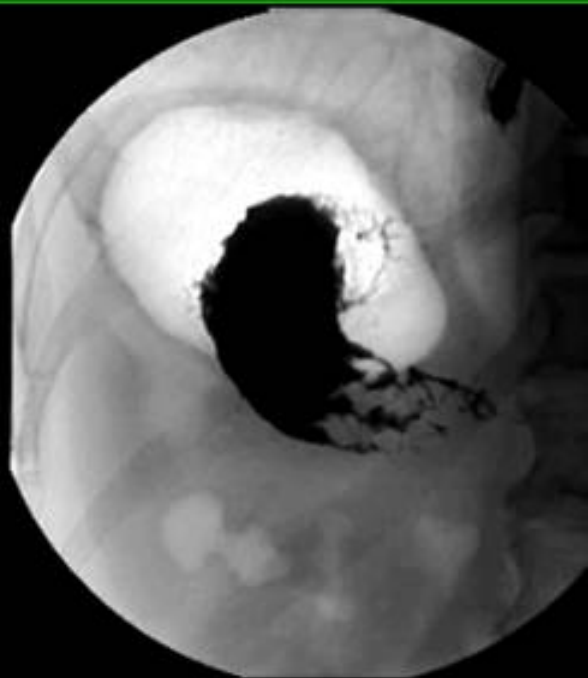
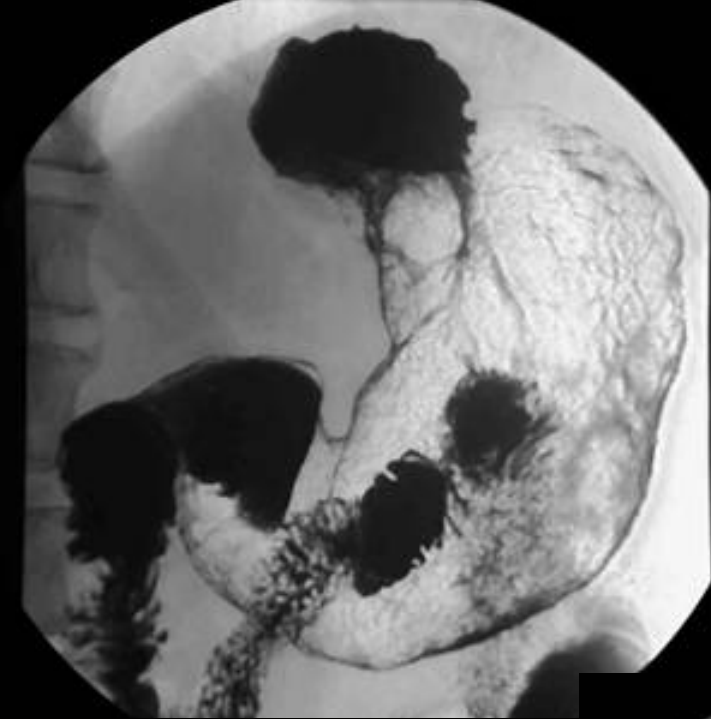
Pathological finding

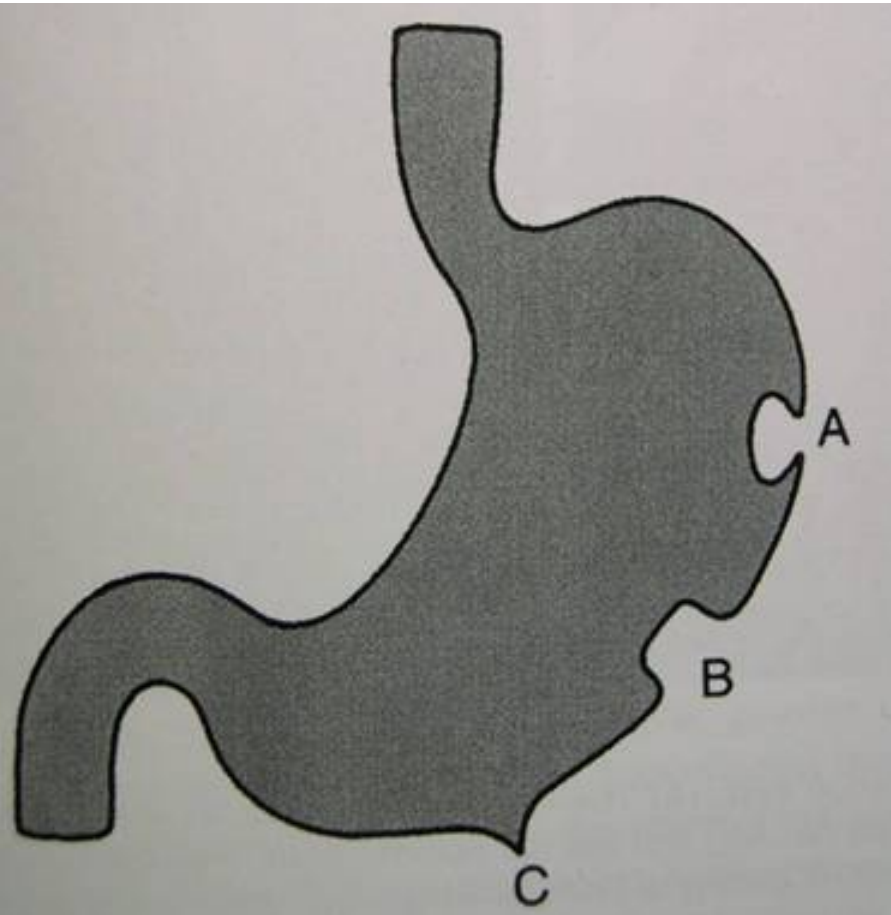
- Low-grade B-cell lymphoma of MALToma
- No bacillus is found in the gastric pits by HE section.

•several nodularity forming the **obtuse angle indentation** are noted at gastric fundus, lesser curvature side of gastric cardia and high gastric body are seen.

•slightly thickening of gastric folds

•gastric **submucosal** lesions of varying etiopathology





A : the margin of a mucosal tumor

B : the margin of a submucosal tumor

C : when growth is predominantly exophytic
the tumor may drag on the gastric wall to
produce a niche



Irregular wall thickening with shallow nodularity at gastric fundus and antrum are noted.



Differential diagnosis (submucosal tumor)

- 1. lymphoma
- 2. GIST
- 3. leiomyoma
- 4. lipoma

lymphoma

- The diagnosis of lymphoma may be suggested if there are giant cavitating lesion or multiple polypoid tumors , particularly if they show central ulceration giving them a bull's eye appearance or if there is extensive infiltration producing pronounced thickening of the gastric folds .



GIST

- GISTs are rare and constitute only about 1% of all GI malignant tumors
- the most common mesenchymal neoplasm of the GI tract.
- They are mesenchymal gastrointestinal neoplasms defined by the expression of KIT (CD117) in the tumor cells



The smooth appearance suggests a submucosal process



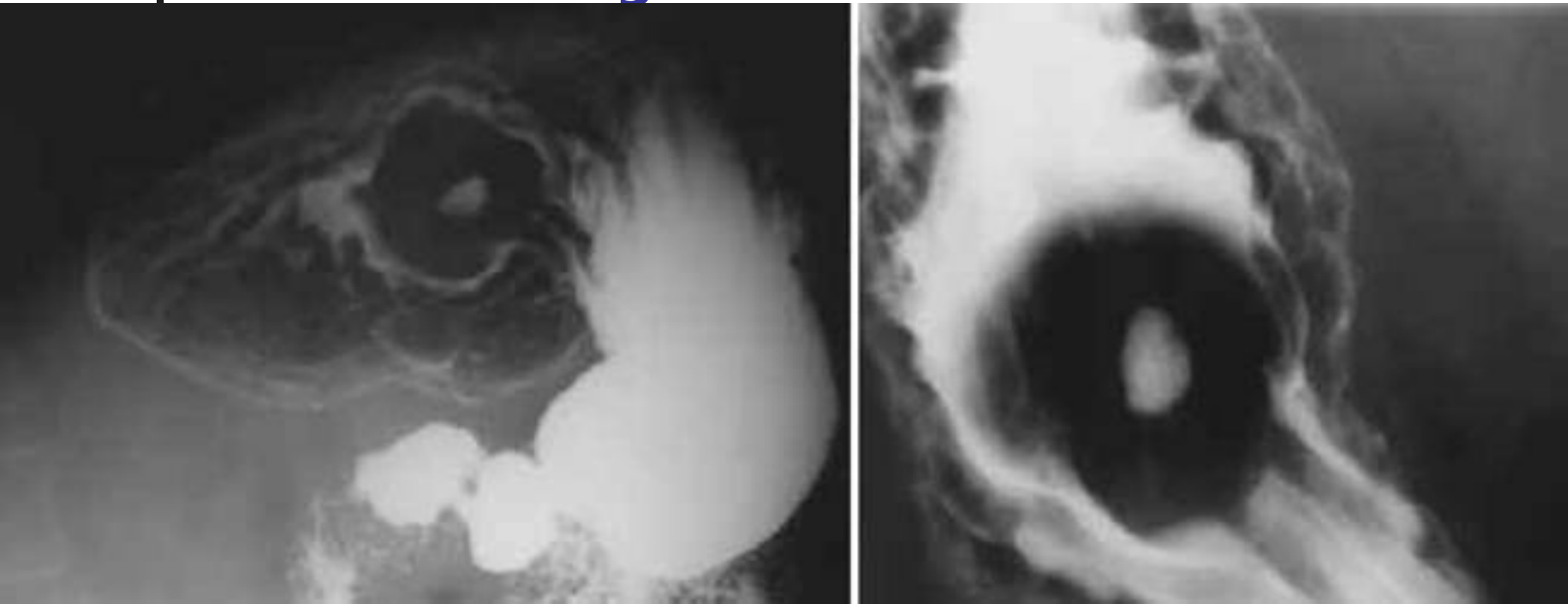
- Gastrointestinal stromal tumor with central bull's eye appearance
- Age : sixth to seventh decades of life
- Upper GI bleeding is the most common clinical manifestation of gastric stromal tumor



huge exophytic component , which has become ulcerated. Barium collects in the exophytic ulcer crater

- Palpable masses are typically detected in patients
- Endoscopic ultrasonography (EUS) is a valuable tool in the diagnosis and preoperative assessment of gastric stromal tumors.
- It can demonstrate the submucosal location of the tumor and can define its size, borders, and echoic pattern

leiomyoma

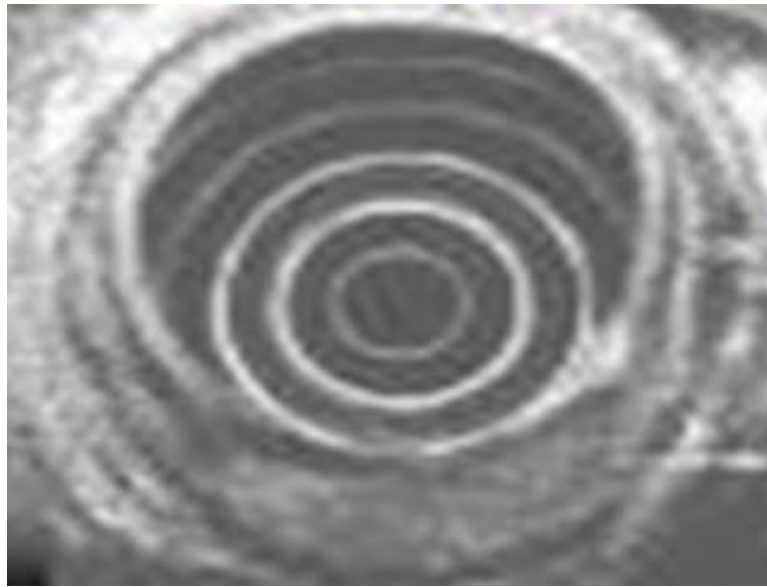


- demonstrate a solitary , ulcerated , gastric mass which has smooth borders and an appearance that suggests a submucosal location
- Leiomyomas may be submucosal, intramural or subserosal.
- Usually they are solitary, rarely multiple.
- Pain and GI bleeding are common presenting symptoms.
- The umbilication observed is secondary to central necrosis of the mass as it protrudes into the gastric lumen.

LIPOMA



- Lipomas are soft and may be seen to change shape with gastric peristalsis or palpation .
- Large tumor may ulcerate .
- Endoscope ultrasound shows the tumor to be hypoechoogenic .
- The diagnosis can be confirmed by demonstrating the fatty nature of the tumor with CT .





Discussion

- Mucosa-associated lymphoid tissue (MALT) is scattered along mucosal linings and protects the body from antigens entering along mucosal surfaces.
- If the mucosal barrier capability is weakened (selective IgA deficiency), a second line of defense is activated. This consists of the participation and recruitment of large numbers of immune-competent cells, resulting in the onset of an inflammatory process that eradicates the antigen and functionally restores the mucosa. If this process is constant and intense, it may result in a chronic inflammatory process.



Discussion

- Because of their common gastric localization, symptoms may mimic peptic ulcer or gastritis.
- Chronic fatigue, low-grade fevers, nausea, constipation, tarry stool, epigastric pain, weight loss, anemia, and shortness of breath are some of the more nonspecific symptoms that may occur in these patients.
- **Most patients with MALTomas have no physical signs.**



Discussion

- Malignancies that occur in MALT tissues are called MALT lymphomas.
- Most of the MALT lymphomas occur in the stomach
- Most gastric MALT lymphomas are associated with *Helicobacter pylori* infection.



Discussion

- Lab

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MCH [27-31] 22.3 pg , MCHC [33-37] 32.5 g/dL
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- Treatment : HP eradication →

Klaricid

Amoxicillin

Nexium(PPI)



Treatment

Chemotherapy

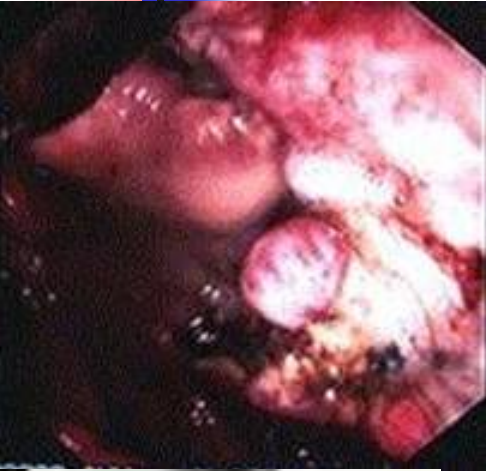
Chemotherapy has not been evaluated extensively in gastric MALT lymphoma. In patients in whom antibiotic regimens fail , chemotherapy should be used. **[CHOP]**

→ cyclophosphamide, hydroxydaunomycin, Oncovin, and prednisone

Radiotherapy

Patients in whom antibiotic treatment fails or in whom *H pylori* infection recurs following eradication and who have a limited area of disease involvement (usually stage IE but also sometimes stage IIE) may benefit from radiotherapy.

DISCUSSION-Image



- Gastric Lymphomas often look "really malignant" in endoscopy.
- Of the malignant tumours found in the stomach, about 5% are lymphomas, most of them non Hodgkin lymphomas
- Image from a double-contrast barium study shows diffuse nodularity of the gastric wall
- The diagnosis of lymphoma may be suggested if there are giant cavitating lesion or multiple polypoid tumors , particularly if they show central ulceration giving them a bull's eye appearance or if there is extensive infiltration producing pronounced thickening of the gastric folds .



DISCUSSION-Image



CT features which suggest lymphoma rather than gastric carcinoma include a bulky homogeneous tumor with pronounced thickening of the gastric wall , preservation of the perigastric fat plane , transpyloric spread , multicentricity , widespread nodal disease





Treatment

Surgical

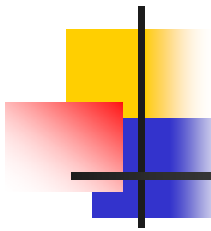
- Surgical treatment of gastric MALT lymphoma is not a primary modality
- have recurrence or who do not respond to anti-*H pylori* therapy



Discussion

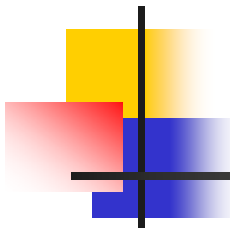
prognosis

- nearly all MALTomas that are not eradicated by treatment of *H pylori* infection are incurable and are associated with a long course (many years) with intermittent therapy for symptomatic disease.
- Although the intermediate-grade diffuse large B-cell MALTomas are more aggressive malignancies, the cure rate may be as high as 90% for stage IE disease and is approximately 30-40% for extensive stage IIIE or IVE disease
- Treatment with a variety of modalities has resulted in a survival rate for patients with stage IE disease of 93% at 5 years and 58% at 10 years, with no deaths from lymphoma.



Staging: Staging of MALT lymphomas is the same as that for other NHLs, with the exception that MALT lymphomas are, by definition, extranodal in origin. Thus, stage I disease, which would be limited to one lymph node site, is not an element in staging protocols.

- **Stage IE:** Lymphoma is present in only one area or organ outside the lymph nodes.
- **Stage IIE:** Lymphoma is present in only one area or organ outside the lymph nodes **and in the lymph nodes around it.** Other lymph nodes on the same side of the diaphragm also may be involved.
- **Stage III E:** Lymphoma is present on **both sides of the diaphragm.** It also may have spread to an area or organ near the lymph nodes and/or the spleen.
- **Stage IV:** Lymphoma is widespread to several organs, with or without lymph node involvement



The stages of Hodgkin disease and non-Hodgkin lymphoma are identical, as follows:

- Stage I (early disease) - Lymphoma located in a single lymph node region or in 1 area or organ outside the lymph node
- Stage II (locally advanced disease) - Lymphoma located in 2 or more lymph node regions all located on the same side of the diaphragm or in 1 lymph node region and a nearby tissue or organ. (The diaphragm is a flat muscle that separates the chest from the abdomen.)
- Stage III (advanced disease) - Lymphoma affecting 2 or more lymph node regions, or 1 lymph node region and 1 organ, on opposite sides of the diaphragm
- Stage IV (widespread or disseminated disease) - Lymphoma outside the lymph nodes and spleen that has spread to another area or organ such as the bone marrow, bone, or central nervous system