


체중감소를 주소로 내원한 62세 남자



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62세 남자

- 3개월 전부터 지속되는 체중감소 및 소화불량으로 본원 소화기내과 외래 내원함. 혈변 및 혈색변은 관찰되지 않음.
- 기저질환 : 없음.
- 흡연 : 0.5 pack/day x 30년, 음주 : 주 2회, 소주 2-3병/회.
- 신체 검진상 특이소견 보이지 않음.

혈액검사

- WBC 8520, Hb 13.4, Platelet 307000
- BUN/Creatinine 11.3/0.97 eGFR (CKD) 83.3
- AST 22 ALT 19
- PT INR 0.95
- Thyroid function test & HbA1c : WNL

내시경

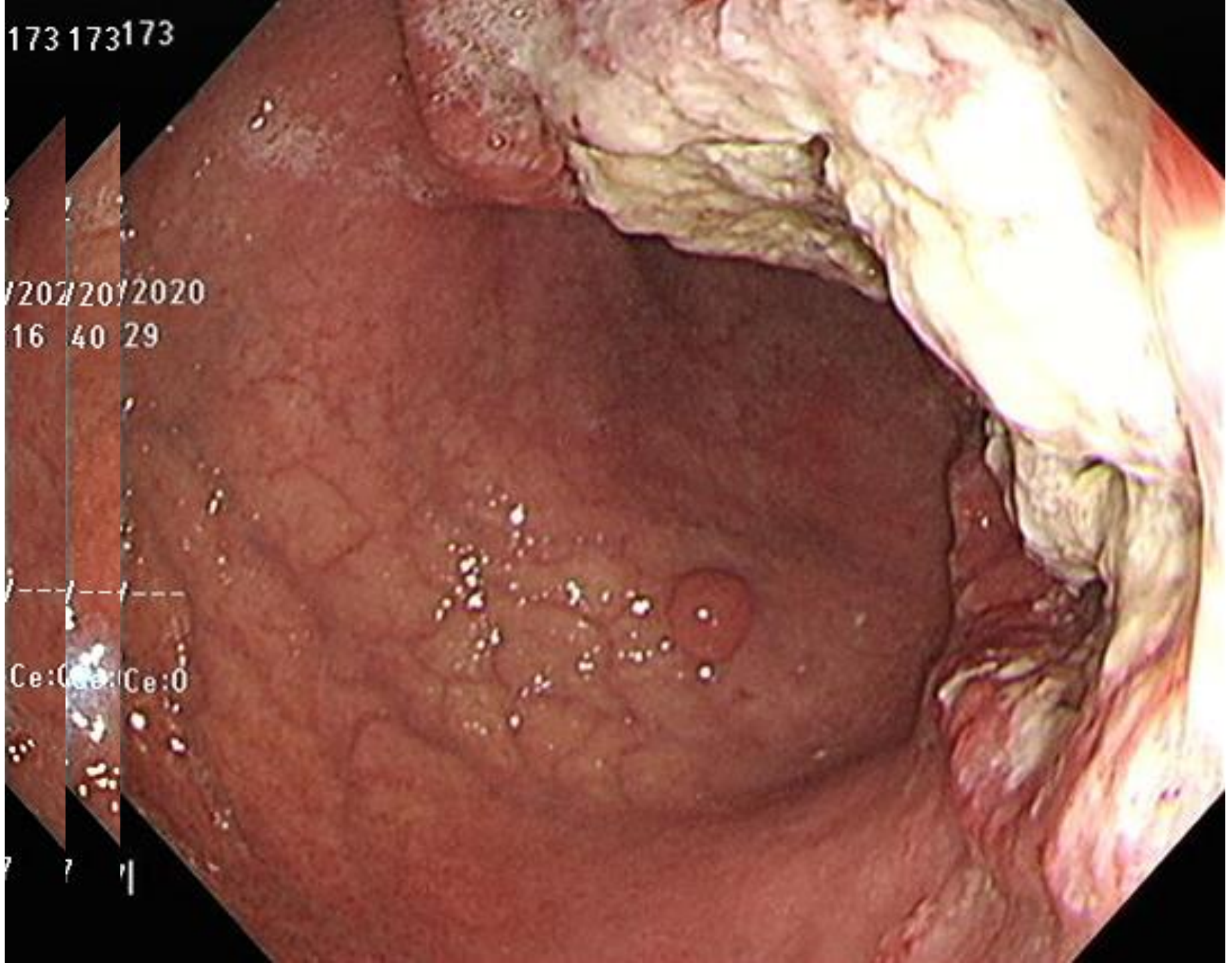
- 위내시경

AGC, Borrmann type 3

Gastric adenoma

- 대장내시경

특이소견 없음.



조직검사 및 종양 표지자

- Adenocarcinoma, well differentiated (LC of lower body)
- Tubular adenoma with low grade dysplasia (GC of antrum)

- CEA 41.47 ▲ (0~5 ng/mL), CA19-9 < 0.60

CT

- Abdomen/Pelvis

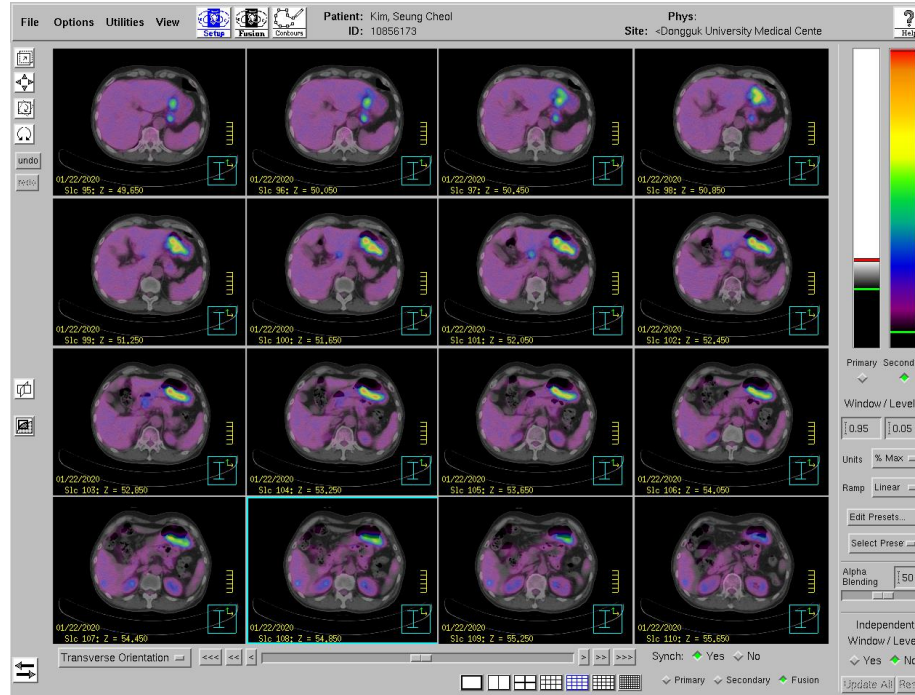
S7 & S6 nodular lesions.
regional lymph node &
peritoneal nodular lesions

- Chest

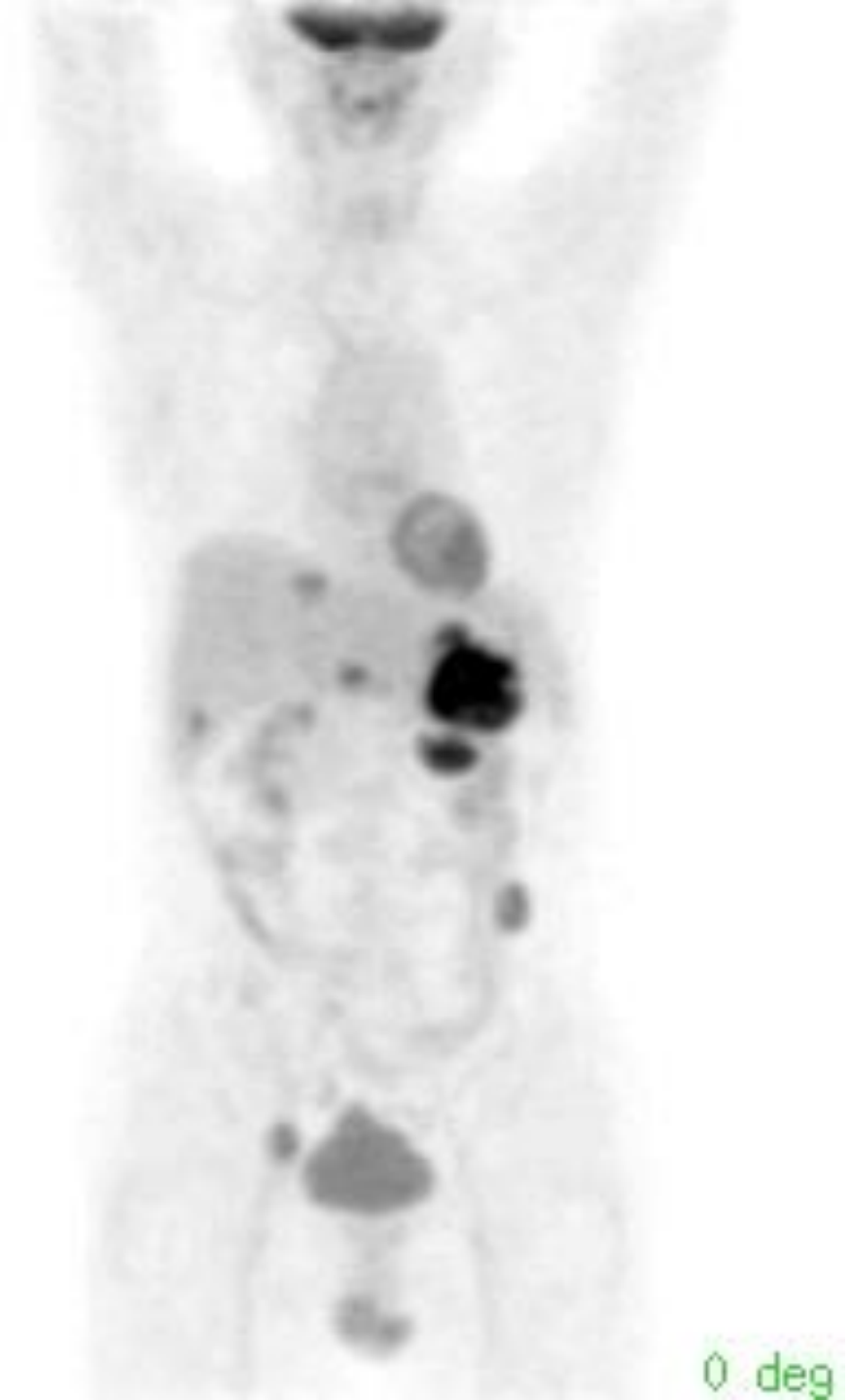
특이소견 없음.



FDG PET CT



AGC with
multiple regional LN metastases,
multiple liver metastases,
peritoneal seeding



조직 면역화학검사

- C-erb B2 (HER2) Positive (3+)

Advanced gastric cancer, stage IV

with lymph node, liver metastasis and peritoneal seeding nodules
(Adenocarcinoma, well differentiated, HER2 3+)

Palliative 1st line chemotherapy

First-Line Therapy

- Oxaliplatin is generally preferred over cisplatin due to lower toxicity.

Preferred Regimens

- HER2 overexpression positive adenocarcinoma^f
 - ▶ Fluoropyrimidine (fluorouracil^b or capecitabine) and oxaliplatin and trastuzumab^a
 - ▶ Fluoropyrimidine (fluorouracil^b or capecitabine) and cisplatin and trastuzumab (category 1)^{a,11}
- HER2 overexpression negative^e
 - ▶ Fluoropyrimidine (fluorouracil^b or capecitabine), oxaliplatin, and nivolumab (PD-L1 CPS ≥5) (category 1)^{g,h,12}
 - ▶ Fluoropyrimidine (fluorouracil^b or capecitabine) and oxaliplatin¹³⁻¹⁵
 - ▶ Fluoropyrimidine (fluorouracil^b or capecitabine) and cisplatin^{13,16-18}

FP (5-FU + Cisplatin) + Trastuzumab

Follow-up CT after 3rd cycles



- **Partial response**

1. liver metastasis

: S7 21mm → 11mm

: S6 9mm → 4mm

2. metastatic lymph nodes

: decreased size and number

3. seeding nodules

: 27mm & 23mm → 12mm

After 4th cycles

- Neutropenic fever (ANC 280)
- Oral mucositis

- Dose reduction

Follow-up CT after 6th cycles (DR)



- Partial response

1. liver metastasis

: S7 21mm → 11mm → 7mm

: S6 9mm → 4mm → none

2. metastatic lymph nodes

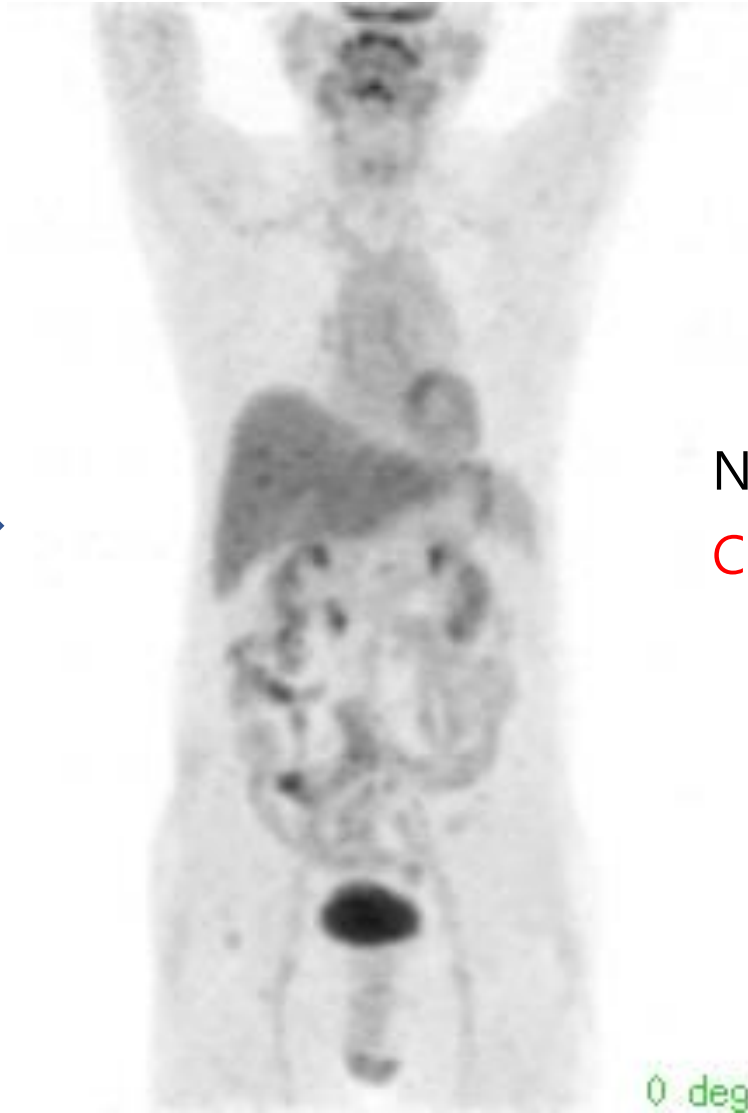
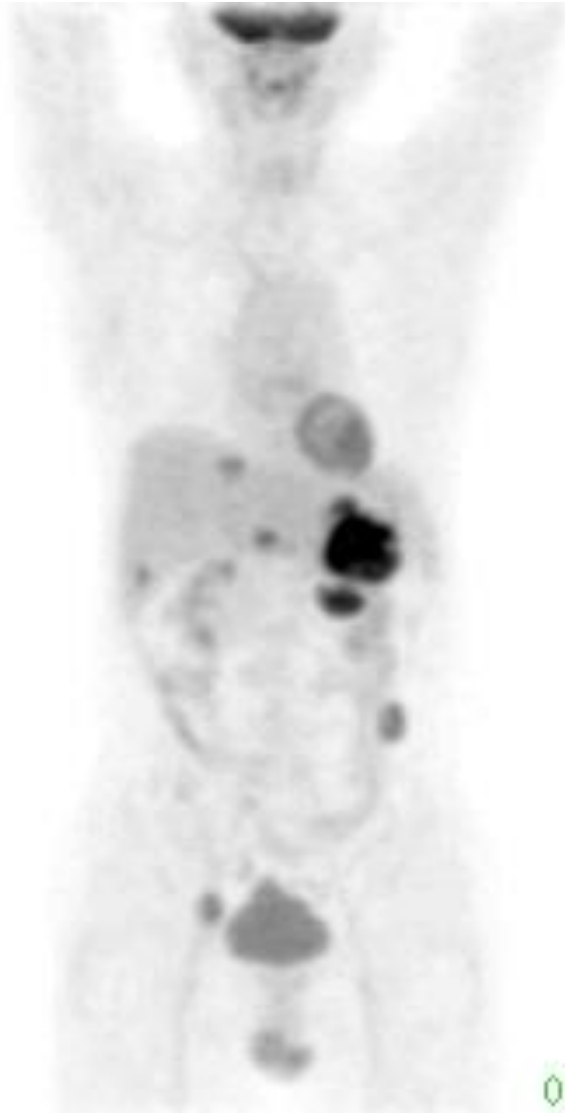
: decreased size and number

3. seeding nodules

: 27mm & 23mm

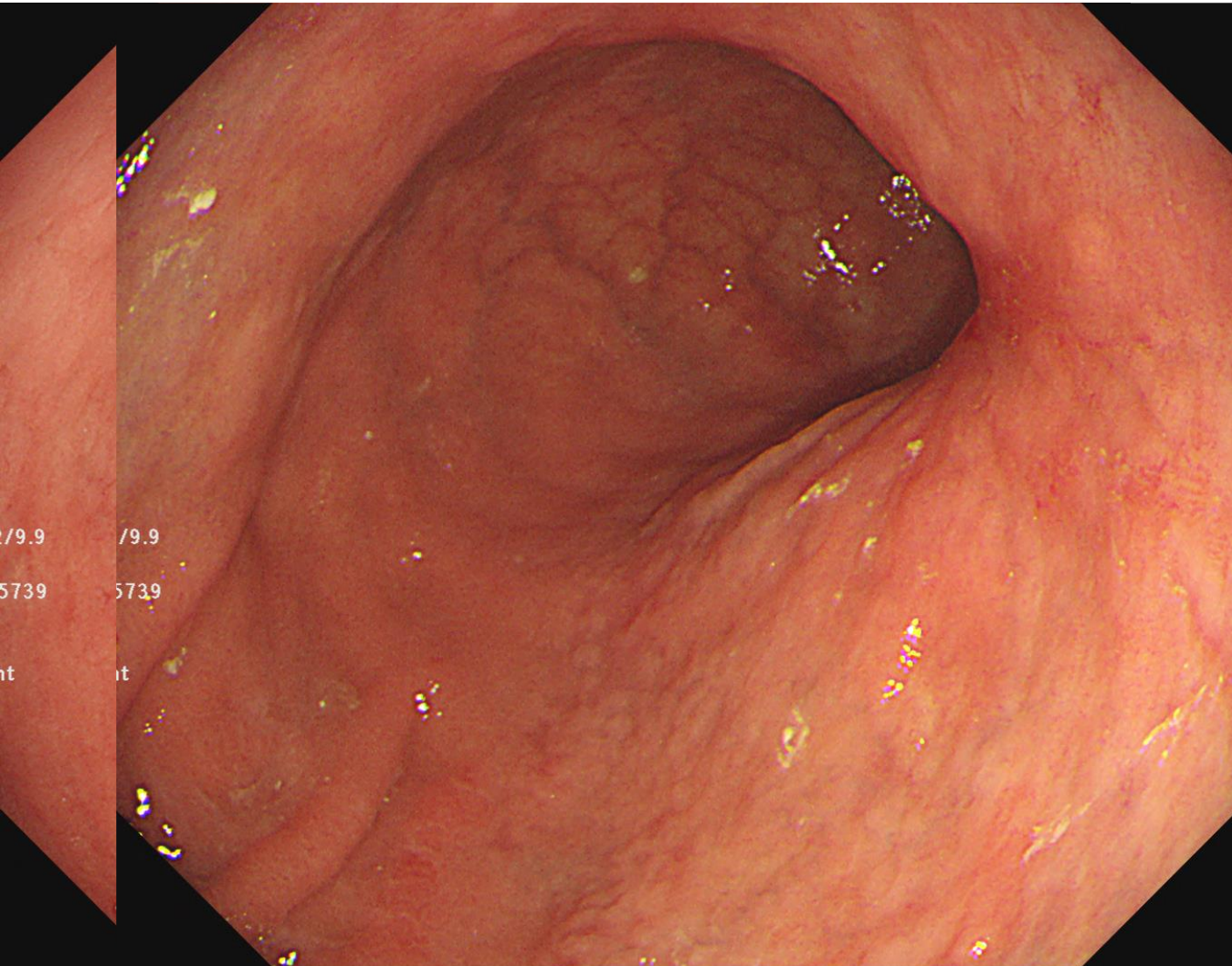
→ 12mm → 7mm

Follow-up FDG PET CT after 6th cycles



No abnormal hypermetabolic lesion ;
Complete metabolic remission status

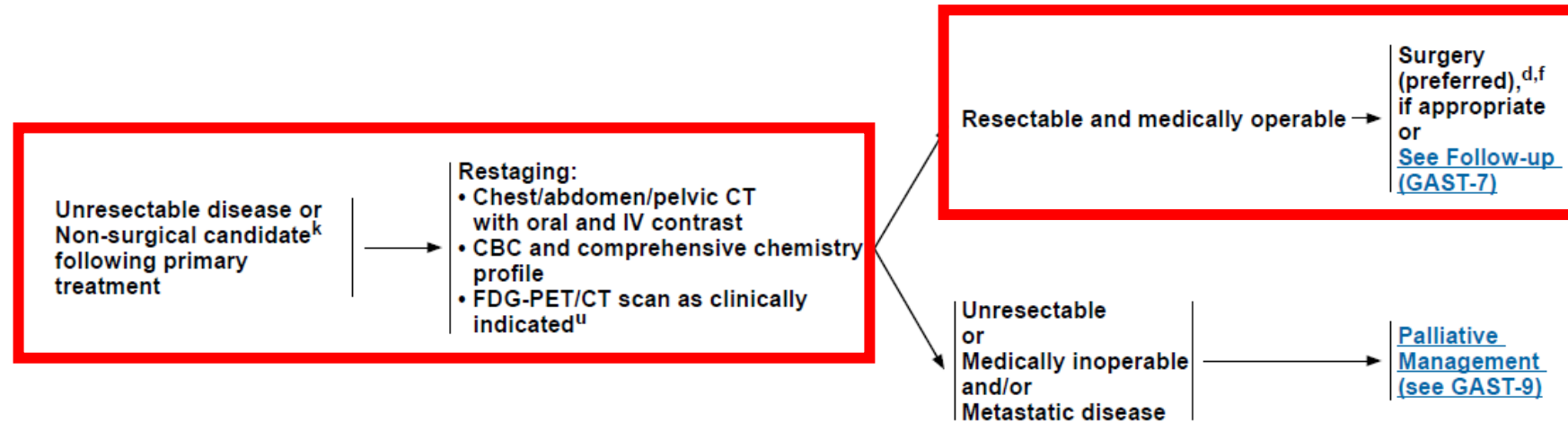
Follow-up upper endoscopy



AGC → Scarring change

Stomach, endoscopic **biopsy**
: metaplastic gastritis

Re-assessment after chemotherapy



- Good chemotherapy response & performance status
- Chemotherapy induced neuropathy, mucositis
- Liver MRI → Diagnostic laparoscopy → Surgical resection

Liver MRI

A 6 mm faint nodular lesion in S7 of the liver

No detectable mass in stomach.

No detectable significant enlarged lymph node



Operation room (2 weeks after Liver MRI)

- Diagnostic laparoscopy : **no peritoneal seeding**
- Total Gastrectomy including Lymphatic Dissection (D2)
- Right posterior sectionectomy of liver

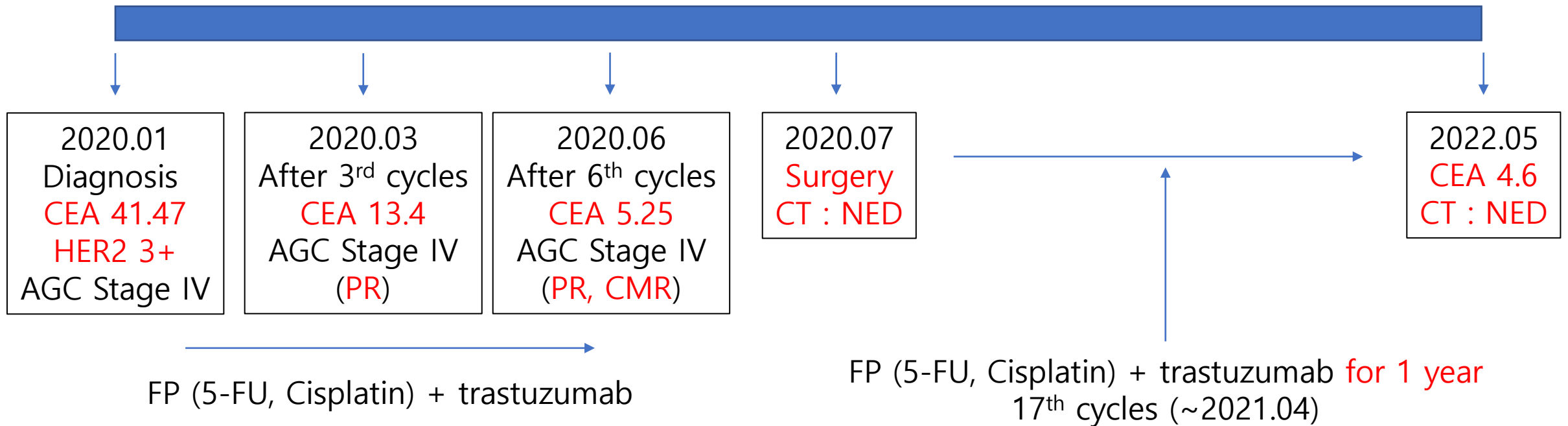


Pathology

- 1) Location: center at low body, lesser curvature
 - 2) Gross type: Borrmann type 3
 - 3) Histologic type: tubular adenocarcinoma, well differentiated
 - 4) Histologic type by Lauren: intestinal
 - 5) Size: less than 1mm in greatest dimension
 - 6) Depth of invasion: Penetrates subserosal connective tissue without invasion of visceral peritoneum or adjacent structures (pT3)
 - 7) Resection margin: free from carcinoma
 - 8) Lymph node: no metastasis in 32 regional lymph nodes (pN0) (replaced appearance by inflammation and fibrosis)
 - 9) Lymphatic invasion, Venous invasion, Perineural invasion : not identified
 - 10) Associated findings: scar formation
 - 11) Tumor regression score: 1 (near-complete response)
 - 12) AJCC cancer staging (8th edition): ypT3N0
- Liver, right posterior sectionectomy:
 1. No tumor (fine sectioning as thin as 1mm-thickness)
 2. Steatohepatitis 1) multifocal sinusoidal expansion 2) no cirrhosis

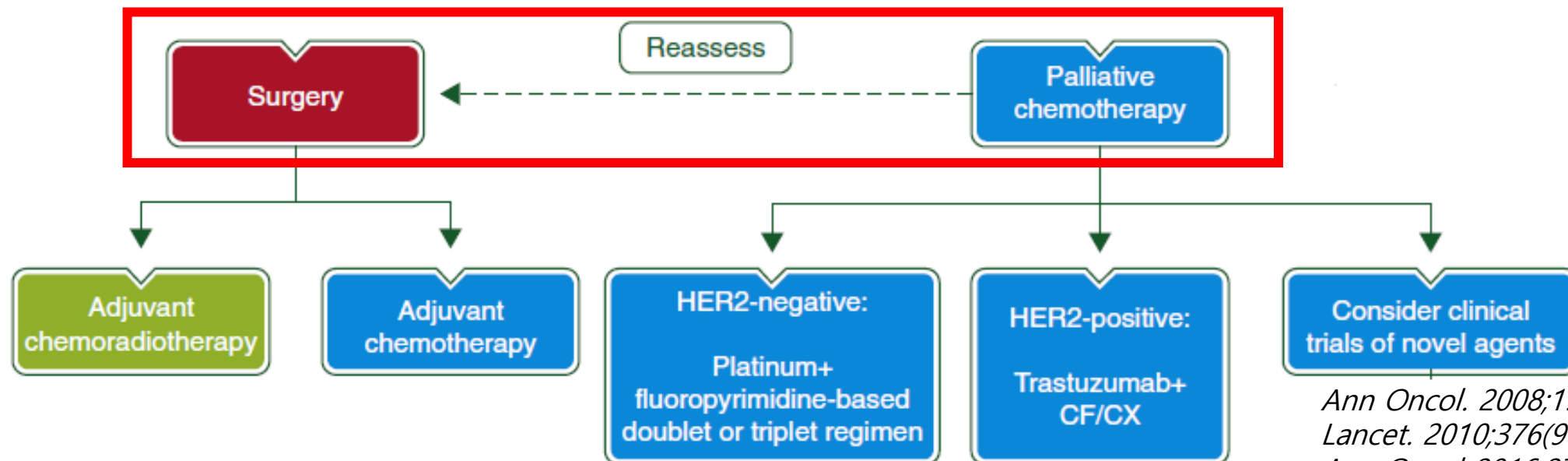
Postoperative follow-up

A case of HER2 positive metastatic gastric cancer treated by surgery during palliative chemotherapy



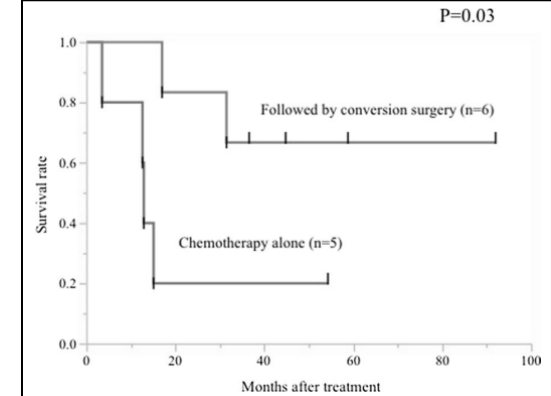
Discussion

- HER2 overexpression in 7% to 34% of gastric cancers
- **Trastuzumab for Gastric Cancer (ToGA) trial**
: median overall survival (OS) - 13.8 months vs 11.1 months



*Ann Oncol. 2008;19(9):1523-1529.
Lancet. 2010;376(9742):687-697.
Ann Oncol 2016;27:38-49.*

Discussion



- 11 patients with HER2 positive metastatic gastric cancer
 - response rate was 63.6% by chemotherapy (6/11)
 - R0 resection was achieved in four patients. (4/6)
(the median OS is 51.8 months)
- R0 surgery after induction chemotherapy with partial or complete response seems to offer superior survival results than chemotherapy alone.



Thank you for your attention

