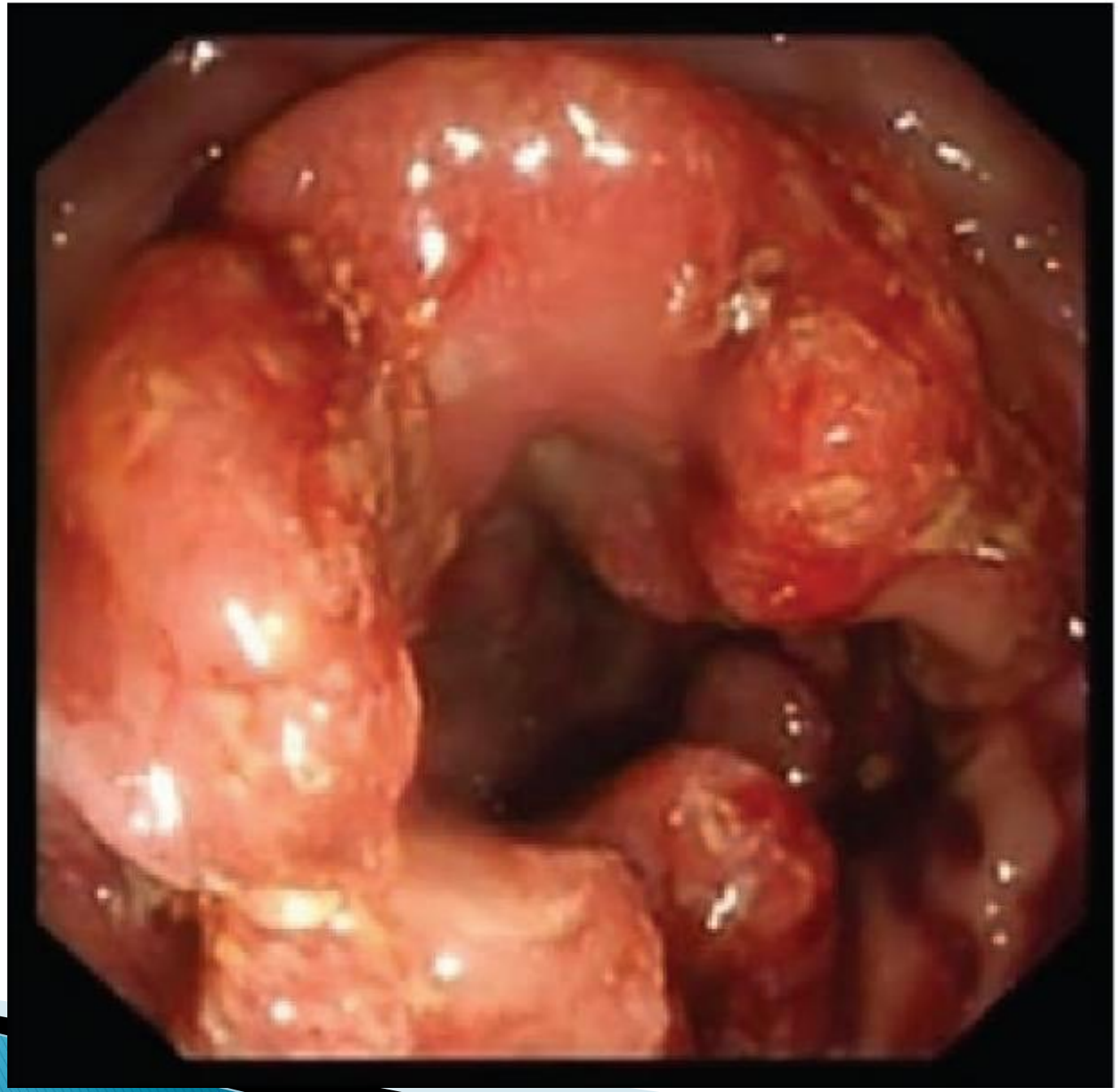
بنام خدا

Colorectal cancer panel
Tabriz medical university
Dr reza khalili hemato oncologist

- 45 Y/O man with History of chronic constipation and decreased fecal caliber
- Intermittent rectorrhagia

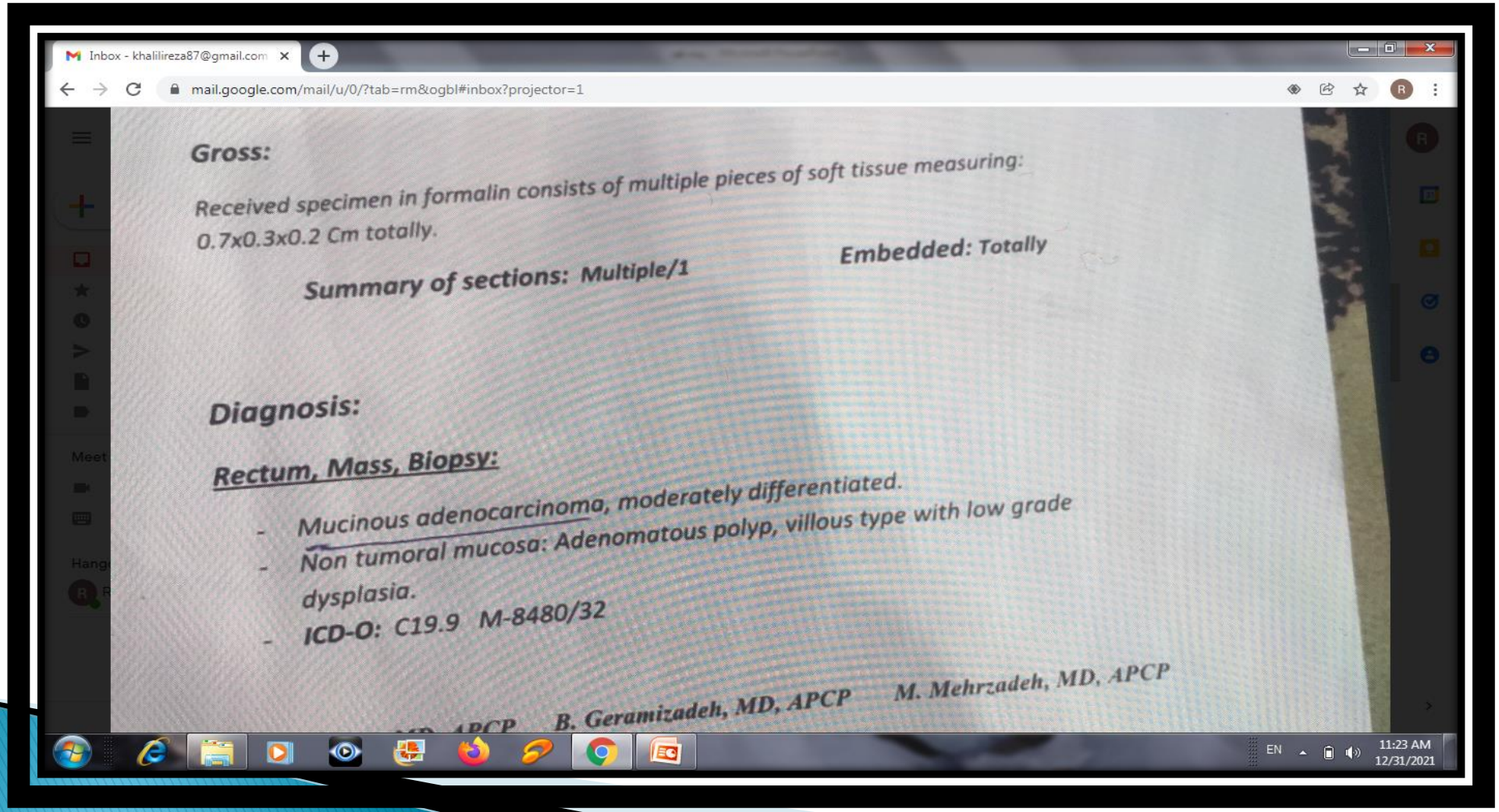
What is the next step :

- Independent evaluation by the treating surgeon with either rigid or flexible proctoscopy is recommended for all rectal tumors.
- Critical characteristics to be documented, in conjunction with digital rectal examination, include: **tumor size**, **distances from the anal verge and the anorectal ring**, **orientation within the rectal lumen** (e.g. anterior–posterior, laterality) and/or **degree of circumferential involvement**, **extent of obstruction**, **extent of fixation to the rectal wall**, **degree of sphincter involvement** and **sphincter tone**.



Colonoscopy : vegetative circumferential lesion in 5 cm from Anal verge were seen. Multiple biopsy was taken

Pathology :

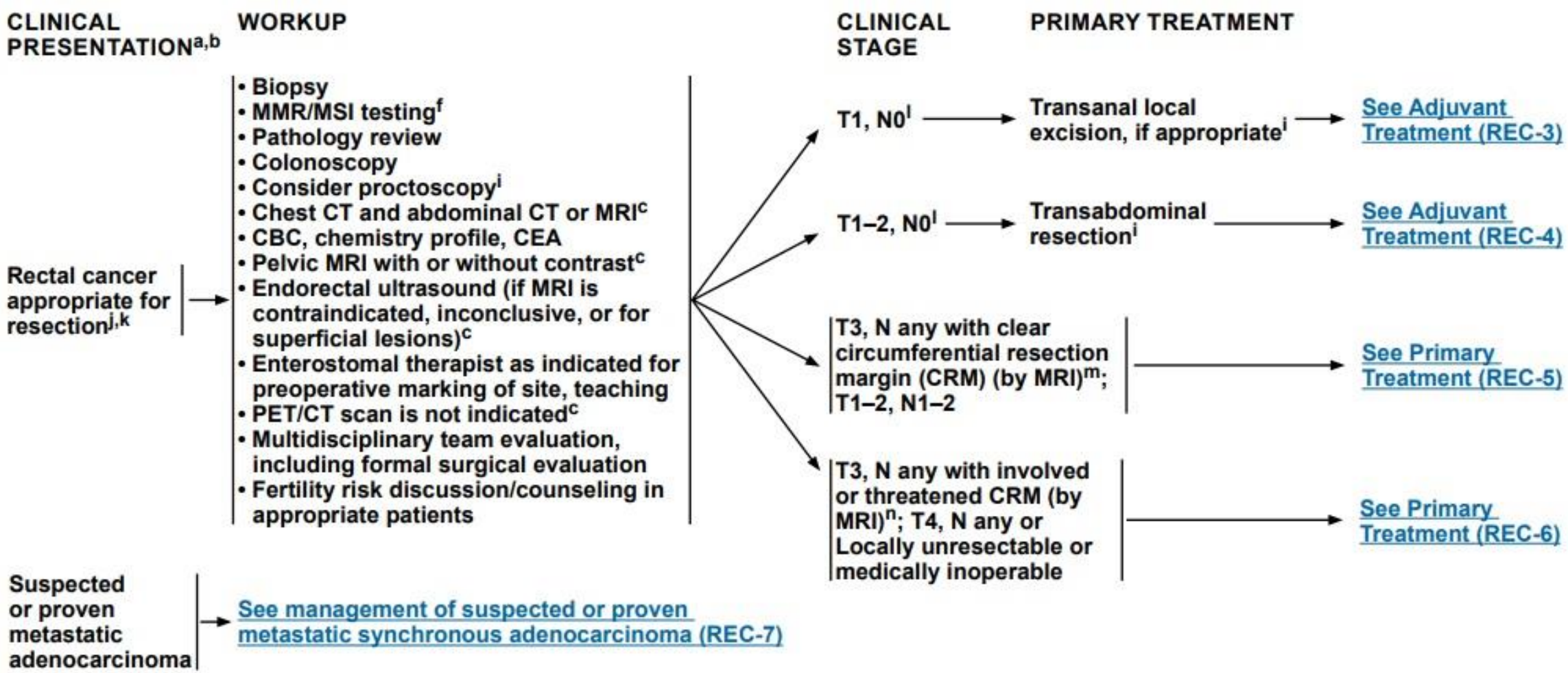

Inbox - khalilireza87@gmail.com
mail.google.com/mail/u/0/?tab=rm&ogbl#inbox?projector=1
Gross:
Received specimen in formalin consists of multiple pieces of soft tissue measuring:
0.7x0.3x0.2 Cm totally.
Summary of sections: Multiple/1
Embedded: Totally
Diagnosis:
Rectum, Mass, Biopsy:
- Mucinous adenocarcinoma, moderately differentiated.
- Non tumoral mucosa: Adenomatous polyp, villous type with low grade dysplasia.
- ICD-O: C19.9 M-8480/32
B. Geramizadeh, MD, APCP
M. Mehrzadeh, MD, APCP
EN
11:23 AM
12/31/2021

- MMR/MSI test was done :
  - *MLH1 : Abnormal*
  - *MSH2 : NL*
  - *MSH6 : NL*
  - *PMS2 : NL*

NCCN version 2.2021 :

- Abnormal MLH1 IHC should be followed by tumor testing for *BRAF V600E* mutation or MLH1 promotor methylation .
- The presence of *BRAF V600E* mutation or MLH1 promotor methylationis consist with sporadic cancer

Next step?


CLINICAL PRESENTATION[a,b]
WORKUP
Rectal cancer appropriate for resection[j,k]
• Biopsy
• MMR/MSI testing[f]
• Pathology review
• Colonoscopy
• Consider proctoscopy[i]
• Chest CT and abdominal CT or MRI[c]
• CBC, chemistry profile, CEA
• Pelvic MRI with or without contrast[c]
• Endorectal ultrasound (if MRI is contraindicated, inconclusive, or for superficial lesions)[c]
• Enterostomal therapist as indicated for preoperative marking of site, teaching
• PET/CT scan is not indicated[c]
• Multidisciplinary team evaluation, including formal surgical evaluation
• Fertility risk discussion/counseling in appropriate patients
CLINICAL STAGE
PRIMARY TREATMENT
T1, N0[l]
Transanal local excision, if appropriate[i]
See Adjuvant Treatment (REC-3)
T1–2, N0[l]
Transabdominal resection[i]
See Adjuvant Treatment (REC-4)
T3, N any with clear circumferential resection margin (CRM) (by MRI)[m]; T1–2, N1–2
See Primary Treatment (REC-5)
T3, N any with involved or threatened CRM (by MRI)[n]; T4, N any or Locally unresectable or medically inoperable
See Primary Treatment (REC-6)
Suspected or proven metastatic adenocarcinoma
See management of suspected or proven metastatic synchronous adenocarcinoma (REC-7)

- In digital egxamination and rigid rectoscopy :
- Tumor was 6 cm from anal verge ,3 cm in length , mobile , and circumferentiated and sphincter was normal and tone of sphincter was preserved

- Chest and abdominaopelvic CT scan was Normal
- CEA= 10 CBC=NL RFT = NL LFT = NL
- MRI was not available
- EUS was done and T3N1 was Reported

ELSEVIER

Gastrointestinal Endoscopy

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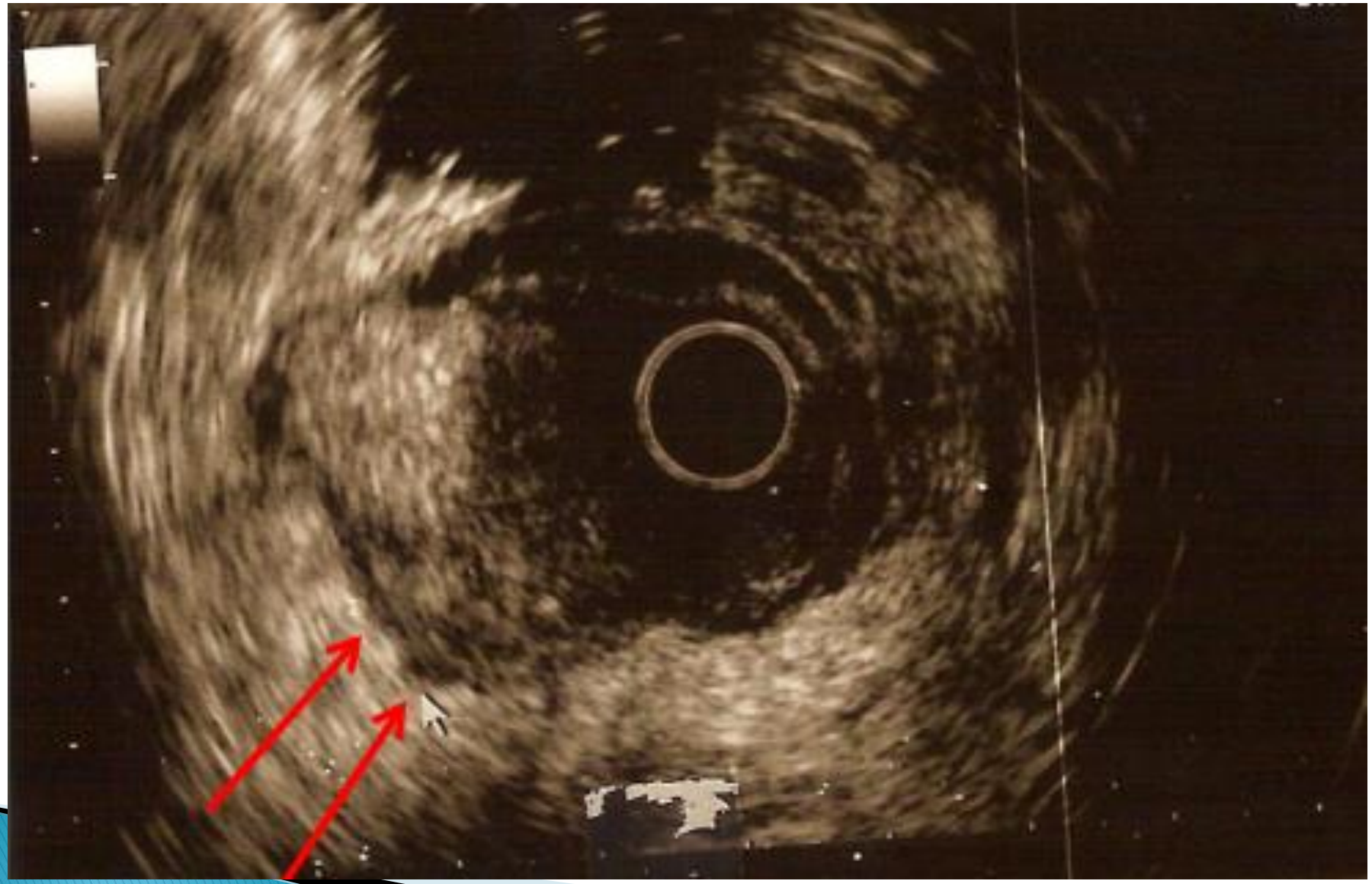
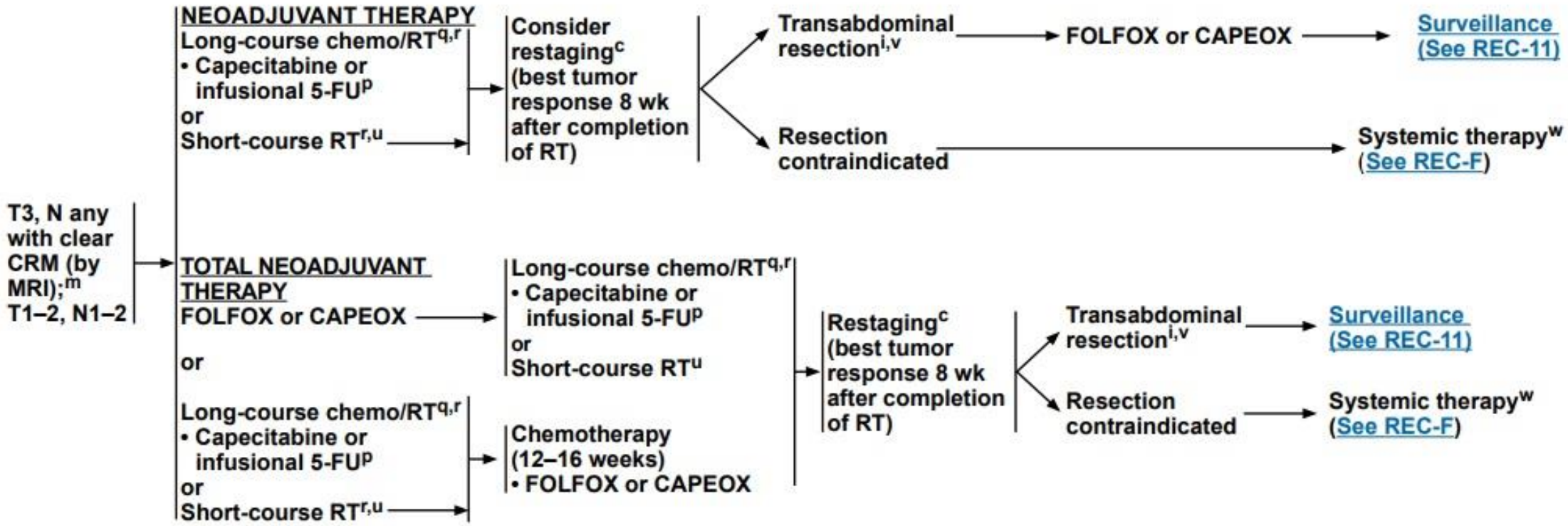
Systematic review and meta-analysis

EUS versus magnetic resonance imaging in staging rectal adenocarcinoma: a diagnostic test accuracy meta-analysis

- EUS was superior to MRI in overall T staging and overall T and N staging after adjusting for MRI technology.
- Practitioners should be aware of advantages and disadvantages of both modalities and choose appropriate methods while considering diagnostic accuracy of each test and institutional practices and limitations.



What is the next step :


T3, N any with clear CRM (by MRI);[m] T1–2, N1–2
NEOADJUVANT THERAPY
Long-course chemo/RT[q,r]
• Capecitabine or infusional 5-FU[p]
or
Short-course RT[r,u]
Consider restaging[c] (best tumor response 8 wk after completion of RT)
Transabdominal resection[i,v]
FOLFOX or CAPEOX
Surveillance (See REC-11)
Resection contraindicated
Systemic therapy[w] (See REC-F)
TOTAL NEOADJUVANT THERAPY
FOLFOX or CAPEOX
or
Long-course chemo/RT[q,r]
• Capecitabine or infusional 5-FU[p]
or
Short-course RT[r,u]
Long-course chemo/RT[q,r]
• Capecitabine or infusional 5-FU[p]
or
Short-course RT[u]
Chemotherapy (12–16 weeks)
• FOLFOX or CAPEOX
Restaging[c] (best tumor response 8 wk after completion of RT)
Transabdominal resection[i,v]
Surveillance (See REC-11)
Resection contraindicated
Systemic therapy[w] (See REC-F)

- After long-course chemo/RT re evaluation was done.
- T2N0 in EUS was reported
- transabdominal resection was done and after 3 weeks , 12 course FOLFOX was ordered

SURVEILLANCE[c]

Transanal local excision only →

- Proctoscopy (with EUS or MRI with contrast) every 3–6 mo for the first 2 y, then every 6 mo for a total of 5 y
- Colonoscopy[a] at 1 y after surgery
  - If advanced adenoma, repeat in 1 y
  - If no advanced adenoma,[hh] repeat in 3 y, then every 5 y[ii]

Stage I with full surgical staging →

Colonoscopy[a] at 1 y after surgery
- If advanced adenoma, repeat in 1 y
- If no advanced adenoma,[hh] repeat in 3 y, then every 5 y[ii]

Stage II–IV →

- History and physical every 3–6 mo for 2 y, then every 6 mo for a total of 5 y
- CEA[jj] every 3–6 mo for 2 y, then every 6 mo for a total of 5 y
- Chest/abdominal/pelvic CT
  - Stage II, III: every 6–12 mo (category 2B for frequency <12 mo) for a total of 5 y
  - Stage IV: every 3–6 mo (category 2B for frequency <6 mo) x 2 y, then every 6–12 mo for a total of 5 y
- Colonoscopy[a] in 1 y after surgery except if no preoperative colonoscopy due to obstructing lesion, colonoscopy in 3–6 mo
  - If advanced adenoma, repeat in 1 y
  - If no advanced adenoma,[hh] repeat in 3 y, then every 5 y[ii]
- PET/CT scan is not recommended
- See Principles of Survivorship (REC-G)

→ Serial CEA elevation or documented recurrence → See Workup and Treatment (REC-12)

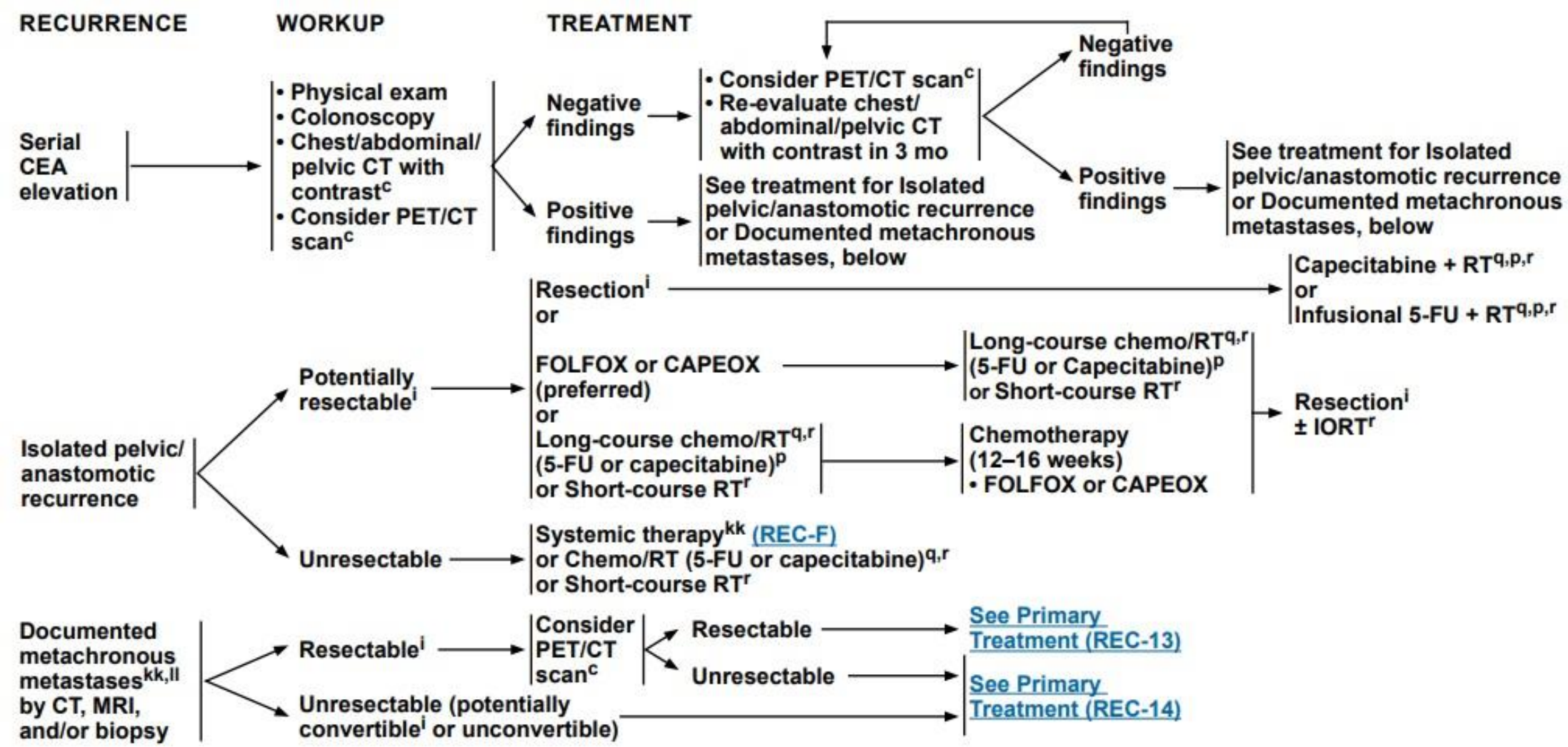
- Physical exam and serial CEA every 3 months was done
- After 1.5 years : no symptom , normal Exam , CEA = 25

What is the next step :

- CT scan revealed a single metastisis in liver segment 6 , **3* 4 cm**
- Colonoscopy was normal

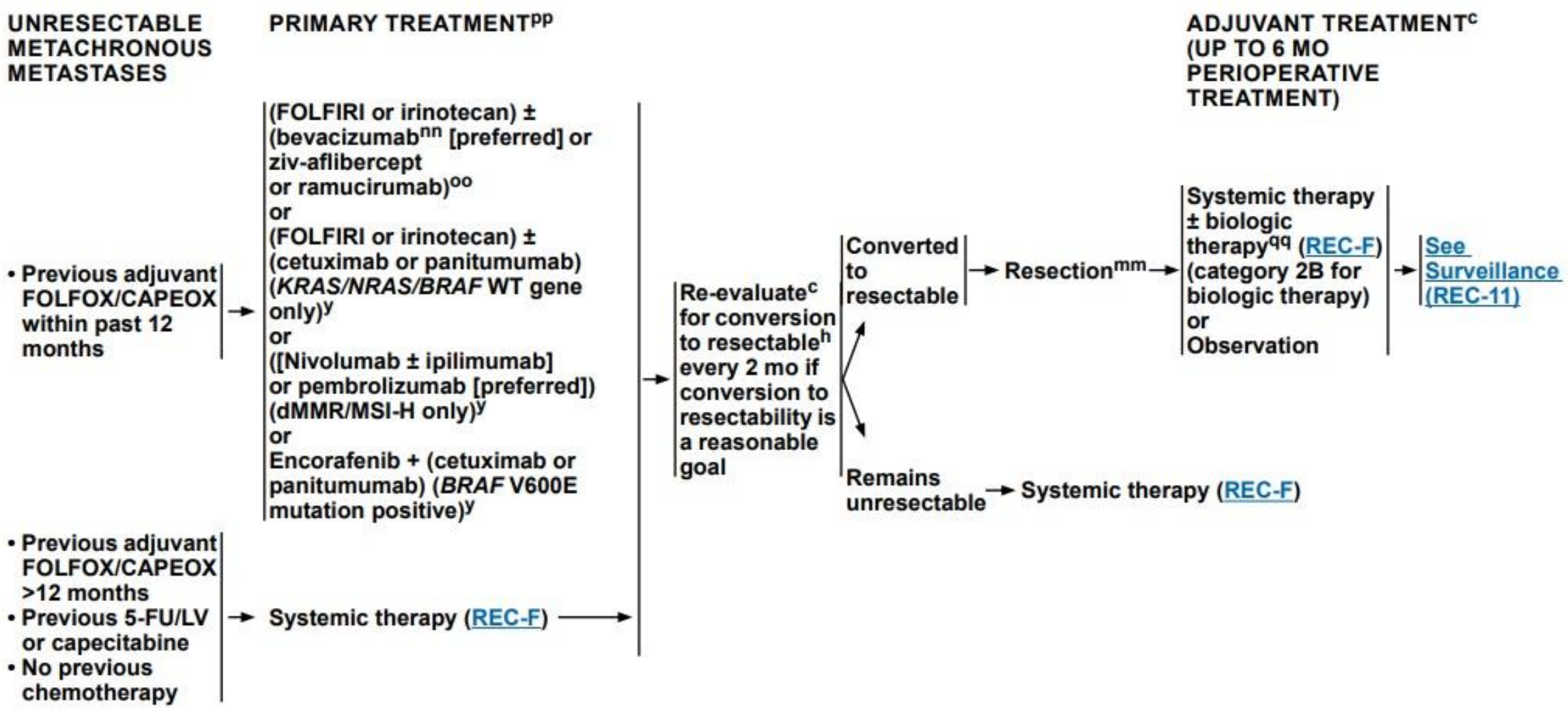
What is the next step :

- PET – CT was done: another 1*1 cm lesion with SUV =11 in right Hepatic lobe was revealed


RECURRENCE
WORKUP
TREATMENT
Serial CEA elevation
• Physical exam
• Colonoscopy
• Chest/abdominal/ pelvic CT with contrast[c]
• Consider PET/CT scan[c]
Negative findings
• Consider PET/CT scan[c]
• Re-evaluate chest/ abdominal/pelvic CT with contrast in 3 mo
Negative findings
Positive findings
See treatment for Isolated pelvic/anastomotic recurrence or Documented metachronous metastases, below
Positive findings
See treatment for Isolated pelvic/anastomotic recurrence or Documented metachronous metastases, below
Isolated pelvic/ anastomotic recurrence
Potentially resectable[i]
Resection[i] or
FOLFOX or CAPEOX (preferred) or
Long-course chemo/RT[q,r] (5-FU or capecitabine)[p] or Short-course RT[r]
Capecitabine + RT[q,p,r] or Infusional 5-FU + RT[q,p,r]
Long-course chemo/RT[q,r] (5-FU or Capecitabine)[p] or Short-course RT[r]
Chemotherapy (12–16 weeks)
• FOLFOX or CAPEOX
Resection[i] ± IORT[r]
Unresectable
Systemic therapy[kk] (REC-F) or Chemo/RT (5-FU or capecitabine)[q,r] or Short-course RT[r]
Documented metachronous metastases[kk,ll] by CT, MRI, and/or biopsy
Resectable[i]
Consider PET/CT scan[c]
Resectable
See Primary Treatment (REC-13)
Unresectable
See Primary Treatment (REC-14)
Unresectable (potentially convertible[i] or unconvertible)

- KRAS = wild type
- NRAS = wild type
- BRAR V600E mutation +

What is the next step :


UNRESECTABLE METACHRONOUS METASTASES
PRIMARY TREATMENT[pp]
ADJUVANT TREATMENT[c] (UP TO 6 MO PERIOPERATIVE TREATMENT)
• Previous adjuvant FOLFOX/CAPEOX within past 12 months
(FOLFIRI or irinotecan) ± (bevacizumab[nn] [preferred] or ziv-aflibercept or ramucirumab)[oo]
or
(FOLFIRI or irinotecan) ± (cetuximab or panitumumab) (KRAS/NRAS/BRAF WT gene only)[y]
or
([Nivolumab ± ipilimumab] or pembrolizumab [preferred]) (dMMR/MSI-H only)[y]
or
Encorafenib + (cetuximab or panitumumab) (BRAF V600E mutation positive)[y]
• Previous adjuvant FOLFOX/CAPEOX >12 months
• Previous 5-FU/LV or capecitabine
• No previous chemotherapy
Systemic therapy (REC-F)
Re-evaluate[c] for conversion to resectable[h] every 2 mo if conversion to resectability is a reasonable goal
Converted to resectable
Resection[mm]
Systemic therapy ± biologic therapy[qq] (REC-F) (category 2B for biologic therapy)
or
Observation
See Surveillance (REC-11)
Remains unresectable
Systemic therapy (REC-F)