

Sigmoid Colon Cancer with Liver Metastases Post LAR and Chemotherapy with Disease Progression of Symptomatic Left SCF LNs: the Role and Treatment Consideration of Radiotherapy

Case Number: RT2009 - 166(M)

Potential Audiences: Intent Doctor, Oncology Special Nurse, Resident Doctor

Purpose: to present a case with sigmoid colon cancer with liver metastases post LAR and chemotherapy with liver tumor regression but with symptomatic left SCF LNs; to discuss the role and treatment consideration of radiotherapy

Scenario: You are radiotherapy (RT) Intent Doctor/Special Nurse/Resident Doctor, and you are assigned to evaluate the following patient before visiting of your RT attending physician. Please review the following description carefully; your RT attending physician will visit this patient later and discuss with you after your review.

Case Presentation:

This 60-year-old female patient, 林 OOO, was referred to us for radiotherapy assessment of 'Sigmoid colon cancer post operation on 2007/06/29, with liver metastases progression, s/p 5 cycles of Oxaliplatin + 5FU/LV(120/3600/300) and 9 cycles of Erbitux + CPT-11, with left neck LN mets.'

S:

1. In 2007/06, sigmoid colon cancer was histologically proven. Liver metastases also noted. Several regimens and cycles of chemotherapy were given thereafter.
 2. In 2009/05, left neck LNs developed, and she was referred to us for assessment of RT.
- Histories: NDKA
Review of systems: left neck LNs with painful sensation for weeks

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1. **General Condition:** ECOG, 1; ambulatory status; fluent speech
2. **Physical Examinations:** left neck LNs with size more than 3 cm with significant tenderness; no other specific findings.
3. *****Pathology in 2007/06, LAR, sigmoid colon:** 1. OP method: LAR; 2. tumor type: adenocarcinoma; 3. tumor differentiation: moderate; 4. tumor size: 6.2x3x1 cm; 5. tumor location: sigmoid colon; 6. deepest invasion: subserosa; 7. proximal margin: (-); 8. distal margin: (-); 9. peritoneal margin: (-); 10. tumor distal to the nearest margin: 2 mm to serosa; 11. lymph node: + (2/7); 12. extracapsular spread of LN: (+); 13. vascular permeation: (-); 14. lymphatic permeation: (+); 15. neural invasion: (-)
4. *****Pathology in 2007/06, biopsy, sigmoid colon, 18 cm from anal verge:** adenocarcinoma, moderately differentiated.
5. **Images:**
 - (1). Colon scope in 2007/06: a tumor with size more than 3 cm over the sigmoid colon, 18 cm from the anal verge; (2). Bone scan in 2009/01: neg.
 - (3). ABD CT in 2009/03: Regressive but residual mets nodules in bilateral lobes of liver. The largest one measures 2.2cm in diameter and is found over the left lateral segment.
 - (4). ABD CT in 2007/06: Sigmoid colon tumor; Small LNs in bilateral internal iliac chains; several small hypodense nodules, the largest approaching 2cm on both lobes of the liver suggestive of metastases.

Key Image(s):

Fig. 1.

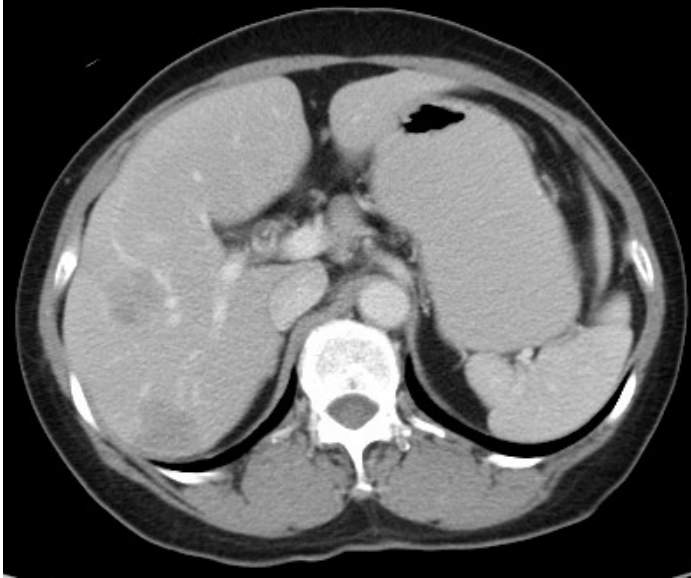
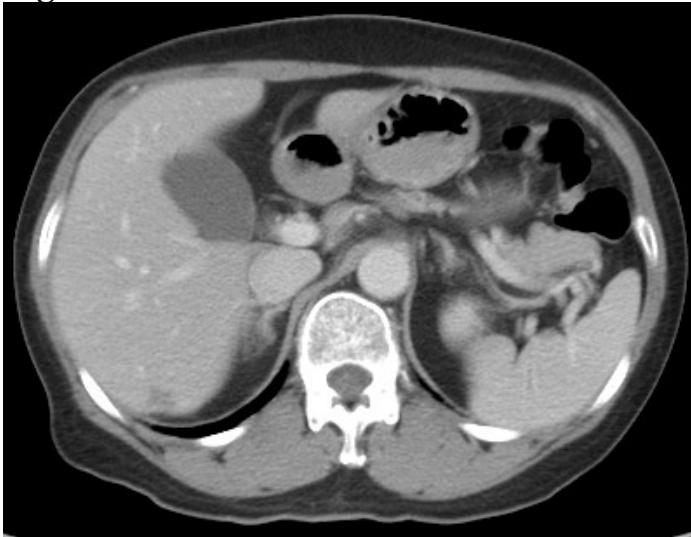


Fig. 2.



Fig. 3.



Questions & Discussions:

(Please answer the following questions commented from your RT attending physician.)

Q1: What are your *findings/interpretations* for the above key image(s)?

Q2: What is your *clinical cancer stage*, according to the AJCC 2006, for this case?

Q3: What is your *pathologic cancer stage*, according to the AJCC 2006, for this case?

Q4: What are your *Oncology Diagnosis / Assessments* for this case?

Q5: What is your *Oncology Plan* for this case?

Q6: What is your *Radiotherapy Plan* for this case?

(Please reply with the following form: *Indication/Contraindication, Goal, Target & Volume, Technique, and Dose & Fractionation.*)

Questions & Discussions: (with potential answers)

(Please answer the following questions commented from your RT attending physician.)

Q1: What are your *findings/interpretations* for the above key image(s)?

A1: As described in the last attached page.

Q2: What is your *clinical cancer stage*, according to the AJCC 2006, for this case?

A2: cT3N2M1, stage IV (2007/06, AJCC 2006); rcT0N0M1(liver and left neck LNs), rc-stage IV (2009/05, AJCC 2006)

Q3: What is your *pathologic cancer stage*, according to the AJCC 2006, for this case?

A3: pT3(6.2x3x1 cm; subserosa)-pN1(2/7)-cM1, stage IIIB (2007/06, AJCC 2006)

Q4: What are your *Oncology Diagnosis / Assessments* for this case?

A4: Oncology Diagnosis: Adenocarcinoma, moderately differentiated, of the sigmoid colon, cT3N2M1, stage IV (2007/06, AJCC 2006), post LAR (2007/06), pT3(6.2x3x1 cm; subserosa)-pN1(2/7)-cM1, stage IIIB (2007/06, AJCC 2006), with extracapsular spread of involved LN, with lymphatic permeation, post several courses of chemotherapy with liver disease progression then regression, with left neck LN mets (2009/05), rcT0N0M1(liver and left neck LNs), rc-stage IV (2009/05, AJCC 2006)

Q5: What is your *Oncology Plan* for this case?

A5: keep chemotherapy and add palliative RT to the left SCF LNs

Q6: What is your *Radiotherapy Plan* for this case?

(Please reply with the following form: *Indication/Contraindication, Goal, Target & Volume, Technique, and Dose & Fractionation.*)

A6: RT Plan may be designed as the following one:

- (1). **Indication:** sigmoid colon cancer post chemotherapy with disease progression with left SCF symptomatic LNs
- (2). **Goal:** palliative; symptoms alleviation
- (3). **Target & Volume:** left SCF LNs with adequate margin
- (4). **Technique:** CT-based 3DCRT
- (5). **Dose & Fractionation:** 5040-5940 cGy in 28-33 fraction or higher, depending on treatment response and symptoms

Further Readings & References:

NCCN 2009 & Perez 2008 & AJCC 2006

Radiation Oncologist
Hon-Yi Lin 2009/06/16

Key Image(s): (with marked)

Fig. 1.

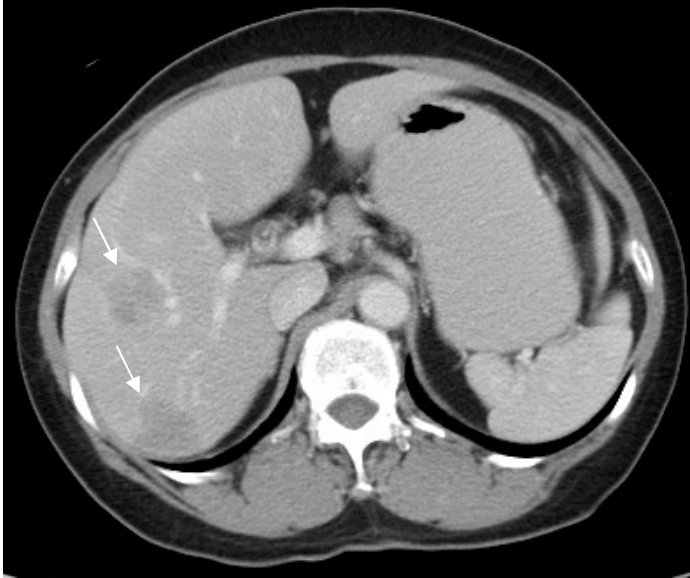


Fig. 1. In 2008/11, two enlarged liver metastases were noted (as the white arrows).

Fig. 2.



Fig. 2. In 2009/03, significant tumor regression of the liver mets was noted (as the white arrow).

Fig. 3.



Fig. 3. In 2009/03, significant tumor regression of the liver mets was noted (as the white arrow).