

COLORECTAL CANCER CASES

Case #1

Case #2

Colorectal Cancer Case 1

A 52-year-old female attends her family physician for a check-up. Her past medical history is significant for diet-controlled Type 2 Diabetes Mellitus, and mild hypertension treated with a diuretic. She has a family history of colorectal cancer. Her father was diagnosed with stage IV disease at age 76 and died within 6 months. Her younger brother has Crohn's disease.

Her physical examination is normal. She denies any symptoms of weight loss, change in bowel function, etc. Given her family history and her symptoms, she asks if she should undergo colon cancer screening.

1. How would you advise this patient?
2. If you feel she warrants colonoscopy, what do you base this opinion on?
3. List the common risk factors for colorectal cancer.

She proceeds with colonoscopy which detects several polyps and a small mass in the ascending colon. Biopsy confirms adenocarcinoma.

4. Which staging investigations, if any, should this patient have done pre-operatively?
5. What is the role of CEA pre-treatment?
6. List 2 negative prognostic features of colorectal cancer.

Her CT chest, abdomen and pelvis are normal. Pre-treatment CEA is elevated at 7.6. She proceeds to have a right hemicolectomy. Her post-operative course is uneventful. The pathology reveals a 3 cm adenocarcinoma, with invasion through the muscularis propria into subserosa. Thirteen lymph nodes were removed, 3 are positive for cancer. Her post-operative CEA has normalized at 3.2.

7. What stage of disease does this patient have?
8. What systemic treatment options should be discussed with this patient? How would your recommendations change if the pathology was MSI-H or MSS?
9. How effective is systemic treatment in decreasing her risk of recurrence?
10. What toxicities do you expect with systemic treatment for this stage of disease?
11. How would her treatment options differ if none of the nodes were involved?
12. What, if any, evidence exists to support recommending treatment with oxaliplatin, irinotecan and/or target therapy (bevacicunab, panitumab) in the adjuvant setting?

She is treated with FOLFOX chemotherapy which she tolerates well.

13. How many cycles of chemotherapy should she receive? What other systemic therapy options would have been appropriate?
14. What are the common toxicities associated with this regimen?
15. How is the 5FU administered in this regimen?
16. How would you follow this patient after the completion of chemotherapy? (What investigations would you order/how frequently?)
17. How often should she undergo colonoscopy?

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Colorectal Cancer Case 2

Please review Case 1 as this case is an extension of that patient scenario.

The patient previously discussed in case 1 (stage 3 colorectal cancer, completely resected and treated with 12 cycles of FOLFOX) has been seen in follow-up as per provincial guidelines for the first year post-treatment. At her 12-month visit, she returns for review and to discuss her recent CT scan which was done routinely as per the follow-up protocol for resected colorectal cancer. She is feeling well, and her physical examination is normal. Unfortunately, her CT chest shows multiple, new 1 cm nodules in both lungs that are suspicious for metastatic disease. Her CT abdomen questions a metastatic deposit in the right lobe of the liver measuring 1.5 cm. Her CEA has risen from 3.0 post-treatment to 35.

1. How would you proceed at this point regarding the work-up of this patient?
2. Does she require a biopsy to confirm recurrence? If so, what would you biopsy?
3. When would you request MSI and extended RAS testing (KRAS, BRAF v600) and how would these results influence your treatment recommendations?

The biopsy from the liver confirms metastatic adenocarcinoma. Although the liver metastasis is resectable, the surgeon believes there are too many pulmonary metastases to consider pulmonary metastectomy.

4. In general terms, how would you advise this patient regarding treatment options (systemic, surgical and radiation)?
5. Should the liver metastasis be resected even though the pulmonary metastases are too numerous to resect? What if there was only 1 pulmonary metastasis and the surgeon felt it was resectable?

This patient and her family have been searching the internet, and have read about irinotecan, and targeted agents such as bevacizumab, cetuximab and panitumumab. They want to know if she will be receiving these agents.

6. How would you advise this patient regarding systemic treatment for metastatic colorectal cancer? Discuss if and how your recommendation would alter if her tumor was left-sided versus right-sided. How would her KRAS status affect this recommendation?

The patient was treated for six months with FOLFIRI and bevacizumab.

7. What are the contraindications to prescribing bevacizumab?
8. What toxicities would you expect from this systemic therapy protocol?

Follow-up imaging has identified progressive disease in the lung and liver.

9. How frequently would you re-image this patient after a change in systemic treatment?
10. What further systemic treatment options exist for this patient now that imaging shows progression?
11. What is the role of next generation sequencing (NGS) testing in this case scenario?
12. What are the expected response rates and toxicities from drugs like panitumumab and cetuximab?
13. What is their mechanism of action?

How effective is systemic treatment in this scenario of metastatic disease? Discuss the overall survival benefits of treatment in the 1st, 2nd, and 3rd line settings.

14. If the patient had complete resolution of her pulmonary metastases and shrinkage of her isolated liver metastasis with chemotherapy, would you recommend resection of the liver metastasis at this time? Is there a role for SBRT in treating the liver metastasis?
15. Discuss the option of drug holidays and when (if ever) you would offer them to a patient. How would you counsel them regarding the risk of the tumor growing while being “off chemotherapy”?
16. When would you discuss investigational drug studies with this patient?

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