

A Case of Metastatic Melanoma in the Liver Mimicking Colorectal Cancer with Synchronous Liver Metastasis

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Abstract

An 81 year old male presented to the hospital emergency department with chronic abdominal pain, diarrhea, and 30 pound unintentional weight loss over the past 4 months. Investigations revealed an obstructing cecal mass with synchronous liver masses. Due to his multiple co-morbidities and complicated hospital course, multidisciplinary decision was made to treat with palliative intent. The patient was successfully diverted and intraoperative biopsy of the hepatic masses revealed metastatic melanoma. The patient had a history of malignant melanoma and underwent curative resection a decade earlier. The patient unfortunately died before the cecal mass could be biopsied. This is a presentation of a common clinical picture with an uncommon pathologic outcome. For our patient, this pathological outcome offers more favorable palliative therapy options.

Keywords: Metastatic melanoma • Colon cancer • Immunotherapy

Introduction

Colorectal Cancer (CRC) presenting with synchronous liver metastasis is relatively common, occurring in approximately 20% of patients [1]. When resectable, liver metastatectomy is the standard of care with 10-year survival of 24% with an observed cure rate of 20% [2]. Similarly, resection for metastatic melanoma to the liver has demonstrated a survival advantage with 5 year overall survival of 30% versus 6.6% with medical therapy alone [3]. More recently, use of immunotherapies and targeted therapies have revolutionized the treatment of advanced stage and unresectable melanoma [4,5]. Herein we report an atypical case of a patient who presented with a new, obstructing colon mass with synchronous liver metastasis, biopsy proven to be malignant melanoma. This rare presentation is the first to describe metastatic melanoma mimicry to the liver with a synchronous colon mass. The case described is in line with SCARE criteria [6].

Case Presentation

We present the case of an 81 year old male who presented to our emergency department with chronic abdominal pain and diarrhea in the context of

overall decline and 30 lb unintentional weight loss over the past 4 months. His past medical history includes hypertension, atrial fibrillation, coronary artery disease, a prior cerebrovascular accident with residual right-sided hemiparesis, aortic insufficiency, heart failure with preserved ejection fraction, and sick sinus syndrome. His medications include apixaban, metoprolol, Cardizem, and tamsulosin. Procedural history includes percutaneous cardiac intervention, permanent pacemaker implantation and percutaneous drainage for acute cholecystitis with successful interval cholecystectomy. His oncologic history includes high-grade mid ureteral urothelial carcinoma for which he underwent right nephro-ureterectomy and excision of stage T1a cutaneous melanoma twelve years ago with no known recurrence.

The patient initially presented tachycardic with a leukocytosis of 18,000 cells per cubic millimeter, anemic with a hemoglobin 9.5 g per deciliter, severely malnourished with an ECOG performance status of 3 and albumin level of 1.5 grams per deciliter. Computed Tomography Angiography (CTA) of the chest, abdomen, and pelvis revealed a large heterogeneously enhancing mass in the descending colon involving the cecum measuring 10.4 cm x 9.9 cm x 10.7 cm with adjacent narrowing of the small bowel and upstream dilatation of multiple loops dilated small bowel consistent with obstruction (Figure 1). The mass invades into the psoas muscle and abdominal wall. Multiple hypodense lesions were also seen in the liver, the largest seen in the right hepatic lobe measuring up to 4.4 cm x 6.5 cm x 5.5 cm highly suspicious for metastasis. His CEA level was 2.4 nanograms per milliliter.

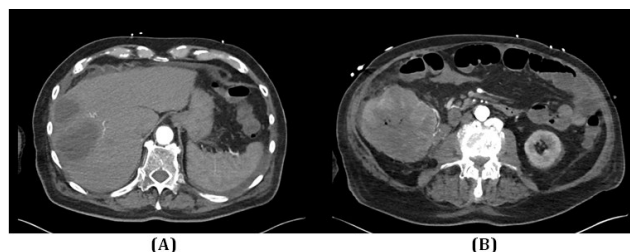


Figure 1. CTA revealing (A) large hypodense liver mass and (B) large heterogeneously enhancing cecal mass.

Nutritional resuscitation was initiated with Total Parenteral Nutrition (TPN) and broad-spectrum antibiotics were started. The patient's hospital course over the next week was complicated by a rapid response activation for altered mental status due to hypoglycemia and opioid overdose requiring narcan. Palliative Care was consulted who initiated goals of care discussion and clarified advance care directives. After extensive discussion with a multidisciplinary team the patient and family agreed upon a diverting loop ileostomy with a liver biopsy to achieve a tissue diagnosis, relieve any obstruction, and allow for systemic therapy. Patient was taken for a laparoscopic diverting loop ileostomy and liver biopsy. Intraoperatively, a very large bulky tumor was noted in the proximal ascending colon and cecum with firm, immobile mesentery, and a moderate amount of clear ascites. The small bowel was partially obstructed with dilated and thickened in the terminal ileum. Though there were no perioperative signs of peritoneal carcinomatosis there were adhesions around the liver with signs of metastasis. Postoperatively patient had good stoma function and was tolerating approximately 30% of his meals. On post-operative day 8, pathology revealed the liver lesion as metastatic melanoma (Figure 2). Positive stains included Melan-A, HMB-45, SOX-10 and Tyrosinase. BRAF status was not obtained.

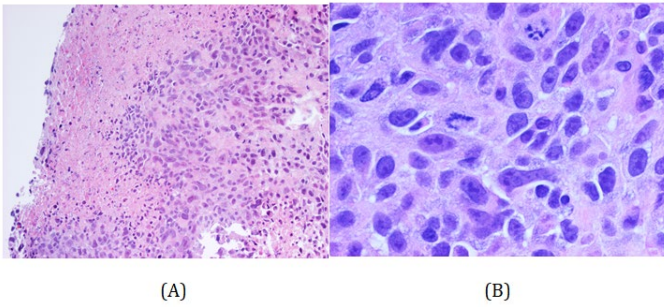


Figure 2. Liver biopsy pathology slides. Morphologic features include prominent nuclear pleomorphism, dusky cytoplasm, nuclei with occasional intranuclear inclusions, prominent cherry red nucleoli and abnormal mitotic figures with (A) Low and (B) high power images

Due to the patient's performance and comorbidities, the treatment plan was to discharge the patient to a nursing home with short-term TPN, and outpatient follow-up with medical oncology for discussion of initiation of immunotherapy. Upon improvement of his nutritional status and response to immunotherapy, the patient would be reconsidered for surgical resection.

Unfortunately on Postoperative Day (POD) 11, the patient developed acute respiratory failure requiring intubation. The advanced care directives the patient and family had agreed upon was do not resuscitate or intubate and the patient was transitioned to comfort care. He died on POD 12.

Discussion

The clinical picture of obstructing colon mass with synchronous liver masses most commonly represents a colon primary with synchronous liver metastasis. Herein described is a rare histopathological outcome for this clinical picture with significant prognostic implications. For instance, prognosis for unresectable stage IV colon cancer is poor with first-line systemic treatment regimens such as continuous infusion 5-fluorouracil with leucovorin, or FOLFOX (5-fluorouracil, leucovorin, oxaliplatin) reporting median survival rates between 14 months and 19 months. 5-year relative survival rates for distant disease is 13% [7-11]. As for metastatic or unresectable melanoma, first-line systemic therapy includes combination checkpoint blockers, anti-PD-1 monotherapy or BRAF-MEK inhibitor combination therapy. Five-year analysis of KEYNOTE-001 revealed an estimated 5-year Overall Survival (OS) of 34% with Pembrolizumab in previously treated or treatment-naïve advanced/metastatic melanoma [12]. Nivolumab for previously untreated BRAF wild-type advanced melanoma with revealed a 3-year overall survival rate of 51.2% and median overall survival of 37.5 months [13]. The success of immunotherapy for metastatic melanoma offers treatment options when patient comorbidities may be prohibitive for surgery. Thus in this case the discovery of the liver metastasis to be from melanoma was fortuitous to our patient, as he would be a candidate for immunotherapy with more favorable outcomes in the palliative setting. Because tissue from the patient's colon mass was never obtained, the final oncologic diagnosis remains incomplete. However, the absence of tissue diagnosis invites consideration for other rare presentations of colon masses with a synchronous liver mass. For instance, this situation could be explained by a new, primary colon cancer with recurrent metastatic melanoma to the liver, both the colon and liver masses representing metastatic melanoma, or more rarely by a new primary malignant melanoma of the colon with synchronous hepatic metastasis. A case of metastatic melanoma mimicry in the liver has previously been described when radiographically resembling Hepatocellular Carcinoma (HCC) [14]. Interestingly, malignant melanoma has been reported to metastasize to the biliary hilum mimicking cholangiocarcinoma and choroid mimicking primary uveal melanoma [15,16]. Of additional significance in this case is a disease-free interval of 12 years. Historically if there has been no recurrence of disease 10 years after initial treatment, recurrence is suspected to be unlikely. A retrospective cohort of 4731 patients at a single institution found that 327 (6.9%) developed a late recurrence defined as ≥ 10 years. Additionally, multivariate analysis confirmed that patients with delayed recurrence were associated with younger age, thinner and node-negative tumors. The late recurrences were also more likely distant, but associated with better post-recurrence survival [17]. This represents a novel clinical situation for the surgical oncologist to be aware of as metastatic melanoma may mimic a variety of oncologic presentations, in a delayed manner, often with prodigious implications. The value in pursuing tissue

diagnosis in these cases is not to be overlooked, as the outcome may provide improved survival outcomes.

Conclusion

Metastatic melanoma may mimic primary visceral and uveal cancers, representing common clinical pictures with uncommon pathological outcomes. With immunotherapy, palliative treatment of metastatic melanoma may offer patients and families improved survival compared to the diseases it mimics. Obtaining definitive tissue diagnosis should always be considered with presentations of a colon mass with synchronous liver mass.

References

- Jemal, Ahmedin, et al. "Cancer statistics, 2009." *CA: cancer j. clin.* 59.4 (2009): 225-249.
- Buisman, Florian E., et al. "Predicting 10-year survival after resection of colorectal liver metastases; an international study including biomarkers and perioperative treatment." *Eur. J. Cancer* 168 (2022): 25-33.
- Faries, Mark B., et al. "A 20-year experience of hepatic resection for melanoma: is there an expanding role?." *J. Am. Coll. Surg.* 219.1 (2014): 62-68.
- Gershenwald, Jeffrey E., et al. "Melanoma staging: evidence-based changes in the American Joint Committee on Cancer eighth edition cancer staging manual." *CA: cancer j. clin.* 67.6 (2017): 472-492.
- Tyrell, Richard, et al. "Surgical resection of metastatic melanoma in the era of immunotherapy and targeted therapy." *Melanoma manag.* 4.1 (2017): 61-68.
- Agha, Riaz A., et al. "The SCARE 2020 guideline: updating consensus surgical Case Report (SCARE) guidelines." *Int. J. Surg.* 84 (2020): 226-230.
- Douillard, JYmf, et al. "Irinotecan combined with fluorouracil compared with fluorouracil alone as first-line treatment for metastatic colorectal cancer: a multicentre randomised trial." *Lancet* 355.9209 (2000): 1041-1047.
- Giacchetti, S., et al. "Phase III multicenter randomized trial of oxaliplatin added to chronomodulated fluorouracil-leucovorin as first-line treatment of metastatic colorectal cancer." *J. clin. oncol.* 18.1 (2000): 136-136.
- De Gramont, A. de, et al. "Leucovorin and fluorouracil with or without oxaliplatin as first-line treatment in advanced colorectal cancer." *J. Clin. Oncol.* 18.16 (2000): 2938-2947.
- Lucas, Amy S., Bert H. O'Neil, and Richard M. Goldberg. "A decade of advances in cytotoxic chemotherapy for metastatic colorectal cancer." *Clin. colorectal cancer* 10.4 (2011): 238-244.
- Siegel, Rebecca L., et al. "Cancer statistics, 2023." *CA: Clin. colorectal cancer* 73.1 (2023): 17-48.
- Hamid, O., et al. "Five-year survival outcomes for patients with advanced melanoma treated with pembrolizumab in KEYNOTE-001." *Ann. Oncol.* 30.4 (2019): 582-588.
- Robert, Caroline, et al. "Nivolumab in previously untreated melanoma without BRAF mutation." *Ann. Oncol.* 30.4 (2015): 320-330.

14. So, Jae-Kyoung, et al. "A Case of Metastatic Melanoma in the Liver Mimicking Hepatocellular Carcinoma." *J. Liver Cancer* 21.1 (2021): 92-96.
15. Piltcher-da-Silva, R., et al. "Biliary tract melanoma metastasis mimicking hilar cholangiocarcinoma: a case report." *J. Liver Cancer* 2021.12 (2021): rjab549.
16. Rieth, John M., et al. "Presumed melanoma of unknown primary origin metastatic to the choroid mimics primary uveal melanoma." *Case rep. ophthalmol.* 12.3 (2022): 987-993.
17. Faries, Mark B., et al. "Late recurrence in melanoma: clinical implications of lost dormancy." *J. Am. Coll. Surg.* 217.1 (2013): 27-34.