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Case Report

Isolated Splenic Recurrence of Treated Jejunal Cancer: A Case Report with Brief Review of Literature

Abstract

Spleen is a very infrequent site of metastasis despite the fact that it is the most vascular organ in the body. Even if systemic metastasis occurs, splenic metastasis largely remained asymptomatic due to its large functional reserve, and most often, the metastasis is detected incidentally on follow-up scan. Many cases of asymptomatic splenic metastasis detected on follow-up scans are reported in literature from different primary sites. Herein, we report a similar case of a 33-year-old male who presented with isolated splenic recurrence after a long treatment-free interval following curative treatment of adenocarcinoma jejunum. As stated, there are few previous reports of isolated splenic metastasis from carcinoma colon, but considering small intestinal adenocarcinoma, this is the first unique case reported to the best of our knowledge. Due to rarity of clinical scenario and lack of established guidelines, the treatment of such cases varies from patient to patient, and the knowledge, whatever we owe, is on the basis of case reports only.

Keywords: *Adenocarcinoma jejunum, isolated splenic metastasis, splenectomy*

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Introduction

Splenic involvement as a part of metastatic disease is usually seen in cases of diffusely metastatic disease. Splenic metastasis usually occurs in late course of illness, usually asymptomatic, and therefore rarely draws attention of treating oncologist in an advanced case and hence very infrequently reported. The most common primary sites for splenic metastasis are usually lungs, gastrointestinal tract, breast, ovary, and melanoma.[1] However, isolated splenic metastasis as a clinical presentation is a very rare occurrence although few such case reports have been previously described in literature from common primary sources being colon, breast, lung, and even renal cell carcinoma.[2-4] Although very rare, 4 cases of solitary splenic metastasis from nasopharyngeal carcinoma have also been reported.[5] In this communication, we describe a 33-year-old male who initially underwent curative treatment for carcinoma jejunum and presented with isolated asymptomatic splenic recurrence without any evidence of disease elsewhere after a long treatment-free interval.

Case Report

A 33-year-old male patient with no prior known medical or surgical comorbidities or any drug allergy presented with complaints of abdominal pain, anorexia, recurrent episodes of vomiting, and in view of obstructive pathology underwent resection anastomosis for the same at a peripheral hospital. At our institute, he was further evaluated where review of outside slide and blocks of excised jejunal growth was done which was suggestive of moderately differentiated adenocarcinoma infiltrating through the wall of jejunum [Figure 1]. His routine blood investigations including compete blood counts, liver function tests, and kidney function tests were normal. Postoperative positron emission tomography (PET) scan was normal without any metabolically active lesion in the body. He received 12 cycles of adjuvant FOLFOX4 chemotherapy followed by observation. After 2 years of treatment-free period while on follow-up, with patient remained asymptomatic, PET scan revealed focal fluorodeoxyglucose (FDG) avid solitary splenic lesion (3.1 cm × 2 cm size) without any evidence of disease elsewhere in the body [Figure 2]. Fine needle aspiration cytology (FNAC) from splenic

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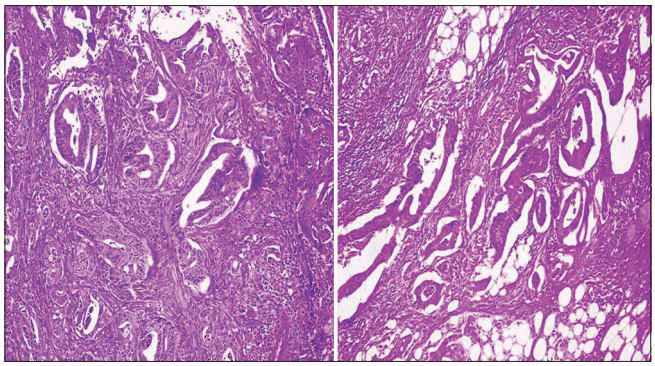

Figure 1: Moderately differentiated adenocarcinoma infiltrating through the wall of the jejunum (H and E, ×100)

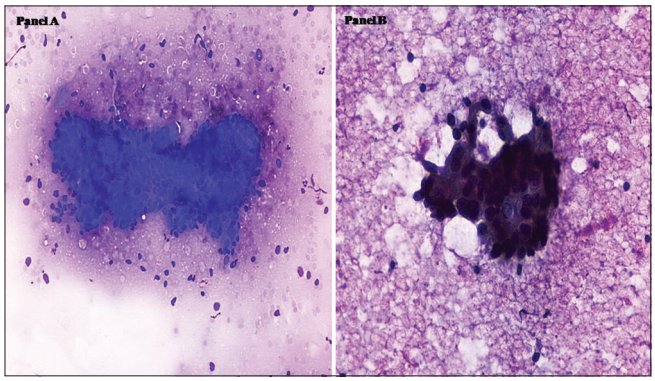

Figure 3: Panel A showing computed tomography-guided fine needle aspiration cytology from splenic lesion showing cluster of atypical epithelial cells with acinar formation (Giemsa, ×100). Panel B showing computed tomography-guided fine needle aspiration cytology from splenic lesion showing cluster of atypical epithelial cells with acinar formation (Pap, ×200)

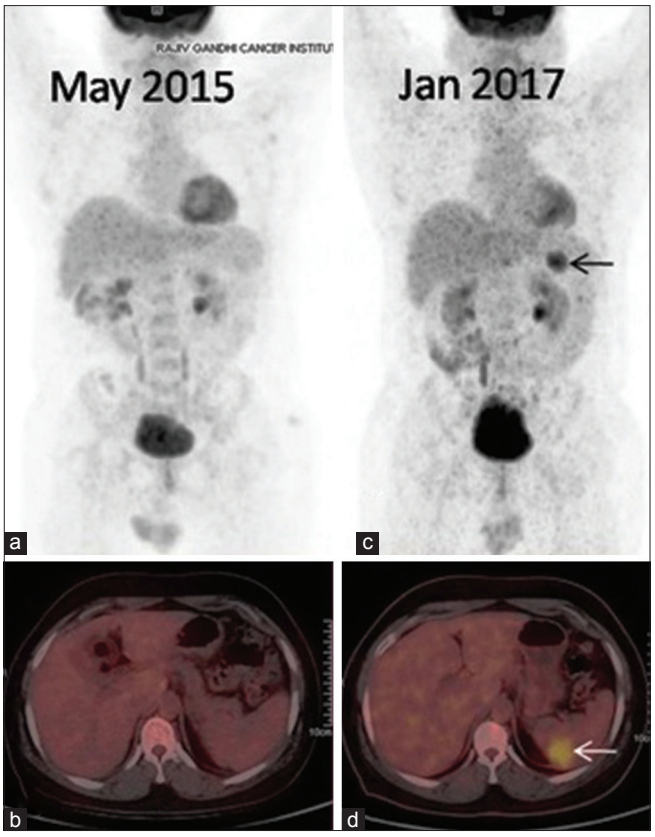

Figure 2: Maximum intensity projection (a and c) and axial (b and d) positron emission tomography-computed tomography images depicting focal fluorodeoxyglucose avid splenic lesion (arrow) in follow-up study

lesion was done which showed cluster of atypical epithelial cells showing acinar formation [Figure 3] confirming the diagnosis of metastasis from small intestinal primary. In view of oligometastatic recurrence, case was discussed in multispecialty clinics and the patient is offered splenectomy and second-line chemotherapy after surgery; however, the patient denied surgery and wished to follow a more stringent follow-up with splenectomy/further medical treatment on further progression disease or development of new symptoms. Presently patient is on active follow up and symptom free.

Discussion

Despite the fact that small intestines contain 75% of length of alimentary tract with 90% of its mucosal area, the malignancies arising primarily from small intestines are rare. These are one of the rarest cancers accounting for 2% of all gastrointestinal tract cancers.[6] Various common histological subtypes that usually physicians come across are adenocarcinoma, lymphomas, and neuroendocrine tumors. The most common clinical picture is that of recurrent abdominal pain, palpable abdominal mass, intestinal obstruction, and gastrointestinal hemorrhage.[7] Most common sites of metastatic disease from small intestinal adenocarcinoma include liver followed by peritoneum, pelvis, and lungs.[8] Majority of the cases present with diffusely metastatic disease with very limited numbers of those with oligometastatic disease presentation.

Isolated splenic metastases are rare entity as spleen is usually involved as a process in cases of diffusely metastatic diseases. There is no plausible explanation for the rarity of splenic metastasis; however, it could be due to characteristic splenic anatomical position and its blood stream state or may be due to splenic immunological functions that may prevent tumor cell proliferation.[9] Spleen is considered inappropriate soil for metastatic disease due to these peculiar and unique anatomical, histological, and functional characteristics.[10] Most of the times, patients are asymptomatic and solitary metastasis is usually detected on follow-up scans; however, sometimes, the patient can present with nonspecific symptoms such as weight loss, splenomegaly, or epigastric pain. Different primary sites of splenic metastases have been reported previously.[1-3] Genova *et al*. reported isolated splenic metastasis from nasopharyngeal primary and the patient survived after laparoscopic splenectomy followed by chemotherapy.[5] Abdou *et al*. reported small series of isolated splenic metastasis from colonic carcinoma in which few patients were diagnosed

on the basis of FNAC and few required biopsy; however, all patients underwent splenectomy after confirmation of metastatic disease.[11] In our patient also, splenectomy was advised after confirmation of splenic metastasis but the patient refused for surgery in view of asymptomatic disease and wished to continue on more stringent follow-up. We encourage reporting such rare cases to facilitate keeping more differentials on follow-up scans after curable malignancies, especially rare one like jejunal carcinoma in this case.

Conclusion

1. Isolated splenic metastasis after curative treatment of primary cancer is a very rare entity although splenic involvement as a part of diffuse metastasis is very common
2. Majority of patients are asymptomatic due to large splenic reserve
3. Diagnosis needs FNAC/biopsy confirmation before splenectomy
4. Splenectomy followed by adjuvant treatment seems to be the optimal way of management which improves survival; although this is experienced only from case reports and smaller series, it requires further larger studies for validated options.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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