



## Sigmoid Colon Metastasis From Primary Oesophageal Squamous Cell Carcinoma-A Rare Case Report

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### ABSTRACT

Metastasis of squamous cell carcinoma of esophagus into other parts of GI tract is very rare. We report a rare case of sigmoid metastasis from SCC esophagus which were detected on PET CT scan in routine follow up. Sigmoidectomy was done for this. This was 62 year male patient was referred to our hospital with the complaint of dysphagia. On investigation upper GI scopy a mucosal thickening and irregularity in lower esophagus extending into gastroesophageal junction which was Squamous cell carcinoma on pathology. The patient was subjected to 30 fractions of radiotherapy alongwith concurrent chemotherapy consisting of three cycles of carboplatin and paclitaxel and further three cycles of carboplatin. Patient was lost to follow up for six months. Then patient was posted for three stage esophagectomy ,during surgery patient declared inoperable after frozen section analysis of para aortic node, which was positive. Patient was put on regular surveillance and during regular follow up , after one year PET CT scan show hypermetabolic activity in sigmoid colon. No colon related complaints were present. Patient was subjected to sigmoidectomy which on histopathological examination showed metastatic squamous cell carcinoma. We report the first confirmed case of metastasis of Ca esophagus to sigmoid colon.

### KEYWORDS

#### INTRODUCTION

Squamous cell carcinoma (SCC) is the most common malignant neoplasm of the esophagus. In esophageal cancer, the liver followed by lung and bone are the common sites of metastases. Metastatic tumors of the intestinal tract from extra-abdominal site are rare. Metastasis to the large intestine from primary esophageal carcinoma has not been reported so far. Herein, we report the first case of a patient with large intestinal metastasis from esophageal SCC, which was the only detected metastasis found without any other metastasis anywhere in the body, through increased uptake in PET CT scan and confirmed by histopathological examination after surgery for sigmoid colon mass.

#### Case report

A 62 year old man who had been suffering from dysphagia for 2 months underwent endoscopic examination in another hospital, which revealed an ulcerative lesion measuring 4-cm on the lower thoracic esophagus. The patient was referred to Gujarat Cancer Research Institute for further examination and treatment. He was a heavy smoker and a habitual drinker since 30 years. General physical examination at admission did not reveal any abnormalities. All laboratory data were within the normal ranges except for slight anemia and carcinoembryonic antigen levels was 3.7 ng/ml.

Double contrast esophagography demonstrated an ulcerative lesion with esophageal stenosis 4cm in size longitudinally, and located on the lower thoracic esophagus. Endoscopic examination revealed a type 3 advanced esophageal cancer with circular stenosis 35 cm from the incisor teeth extending to involve the gastro esophageal junction. Pathological examination of the preoperative biopsy material revealed moderately differentiated SCC. Computed tomography (CT) scan of the thorax and abdomen showed enlarged necrotic nodes in the para aortic area(fig 1). Based on a diagnosis of Stage II cancer, neoadjuvant chemotherapy (NAC) composed of 5-fluorouracil (800 mg/m<sup>2</sup>) plus cisplatin (80 mg/m<sup>2</sup>) was administered. Following the administration of NAC, the size of the primary tumor was slightly reduced. Clinical evaluation revealed stable disease. Liver dysfunction and progression of the esophageal stenosis due to NAC were noted as side effects. Eight

months after NAC, the patient was taken up for three stage esophagectomy in which he was declared inoperable after frozen section from para aortic node was positive. The postoperative course was uneventful, and the patient was discharged 7 days postoperatively. The patient was put on regular surveillance postoperatively. In the subsequent PET CT scan done hypermetabolic activity was picked up in the sigmoid colon area which was subsequently evaluated by means of colonoscopy which showed oedematous and infiltrative lesion circumferentially at 25 cm from the anal verge(fig 2). Biopsy taken from this suspicious lesion showed high grade dysplasia. The patient was subjected to sigmoidectomy which on final histopathological examination show metastatic squamous cell carcinoma. The post op period was uneventful.



Fig:1

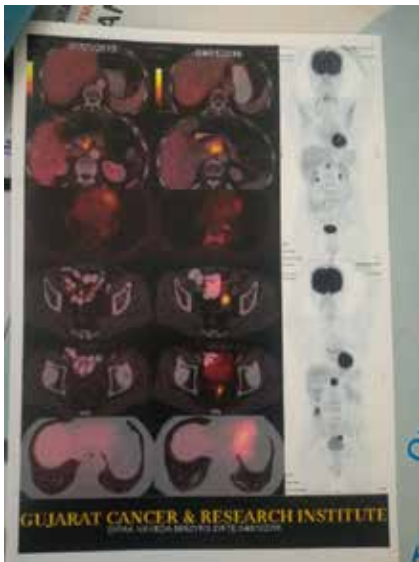


Fig2:

## DISCUSSION

Metastatic tumors of the intestinal tract from extra-abdominal sites are very rare [1, 3]. Hematogenous metastasis to the intestinal tract that developed from extra-abdominal cancer was initially reported in cases of melanoma and lung carcinoma [4-6]. SCC is the most common malignant neoplasm of the esophagus. SCC of the esophagus is characterized by extensive local growth, contiguous spread, and extensive lymphatic metastasis in the mediastinum, abdomen, and cervix via the dual interconnecting longitudinal lymphatic system along the esophagus, depending on the location of the main tumor [7]. Retrograde spread to mesenteric and iliac lymph nodes in the abdomen is unusual [8]. The lymphatic network connecting the esophagus and intestine, lymphatic embolization, hematogenous spread, and peritoneal seeding of the tumor during the initial operation have been considered to be possible mechanisms of metastasis to the abdomen [4]. The intra-abdominal region can also be reached via the hematogenous route, especially via the vertebral venous plexus [9, 10]. In esophageal cancer, the liver, lung, and bone are the most common sites of hematogenous metastases. Metastasis to the large intestine from esophageal carcinoma is not reported as such.

In the international literature, there have been only 5 reported cases of small intestinal metastases from esophageal cancer, including 3 Japanese cases [11]. In the Japanese literature, 14 cases of small intestinal metastases from esophageal cancer have been previously reported [12]. We analyzed the clinicopathological characteristics of the 18 Japanese cases, including our case. The patient age ranged from 44 to 85 (mean 62) year-old, and 16 male and 2 female cases were reported. The clinical symptoms included small bowel obstruction in 11 cases, perforation in 5 cases, and no symptom in 2 cases. The main locations of the primary esophageal cancer were middle thoracic esophagus in 9 cases, lower thoracic esophagus in 5 cases, and cervical esophagus in 4 cases. For all cases, the small intestinal metastases were detected incidentally during surgery. Surgical treatment using laparotomy was performed in all cases. Thirteen patients had a solitary lesion, and 5 patients had multiple lesions. Pathological findings of the primary esophageal cancer revealed SCC in 16 cases, and basaloid carcinoma and undifferentiated carcinoma in one case each. With the exception of a single case of superficial esophageal cancer, the majority of cases were primary advanced esophageal cancer with a very poor prognosis.

In our case, Patient had positive uptake on pet scan at sigmoid... Pathologically, the resected specimen of the sigmoid showed metastatic SCC mainly located in full thickness sig-

moid colon Based on these findings, sigmoid metastasis from esophageal carcinoma is considered to be a late manifestation of highly malignant tumor behavior that might represent the rapid advance of systemic metastases due to the final breakdown of immunological barriers. In addition, sigmoid metastases from esophageal carcinoma might be a significant finding generally associated with a poor prognosis.

FDG-PET is generally a useful examination to detect solitary metastasis. However, FDG-PET can have a high incidence of artifact caused by many different intra-abdominal foci of inflammation such as gastro-intestinal tract, which can make preoperative correct assessment of the abdominal cavity quite difficult [13]. An occult and widespread dissemination of the cancer cells into the abdominal cavity is possible, because of the extensive esophageal lymphatic system. Therefore, early detection of intestinal metastases might be difficult based on clinical symptoms and imaging findings. Additional intra-operative evaluation of the small intestine and the abdominal cavity should be performed to detect occult intra-abdominal metastases in the surgical treatment of advanced esophageal cancer.

## CONCLUSION

Metastasis to the Sigmoid colon from esophageal SCC extremely rare. It might be difficult to diagnose the small intestinal metastasis by symptoms or radiographic imaging preoperatively. For patients presenting with an acute abdomen such as pan-peritonitis, small bowel obstruction, and intussusception who have a past medical history of advanced esophageal cancer, a differential diagnosis of intestinal metastasis should be considered. Regular follow up of patient helps to pick up early metastatic lesion and can be managed in time. Further studies and reports of similar cases are required.

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