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METASTATIC GASTRIC MELANOMA-A CASE REPORT.

Pathology

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ABSTRACT

Malignant Melanoma is one of the notorious malignancies to metastasize to unusual sites and gastrointestinal tract is one of the common sites. Melanoma metastasis can present at the time of presentation or many years later as the first sign of recurrence. We report a case of 70 years old gentleman who presented as primary gastric carcinoma found to have metastatic malignant melanoma of gastric mucosa.Most melanomas identified in the stomach represent metastases from cutaneous sources than primary gastric melanoma.

KEYWORDS

melanoma, endoscopy, biopsy, immunohistochemistry.

INTRODUCTION

Malignant melanoma contributes 1 to 3 percent of malignant cancers which occur in skin, eyes, meninges and anal region. High rates of incidence is reported in Australia, New Zealand, Northern Europe and North America. It usually occurs after the age of puberty and rare before the puberty.Gastro intestinal tract is the common site of metastases especially small bowel, stomach and duodenum. Gastric involvement was a manifestation of terminal metastases.

CASE REPORT

We report a case of 70 year gentleman, who presented to the Out Patient, Department of Surgery in IRT, Perundurai Medical College, a teaching hospital. Patient presented with vague symptoms such as cough with expectoration, fatigue , gastritis, abdominal pain, loss of weight and loss of appetite. Patient was admitted and clinically suspected tuberculosis . For the symptoms of abdominal pain and gastritis, upper GI endoscope done which showed multiple umbilicated, ulcerated lesions throughout the stomach (fig 1a). Multiple biopsies of the black , umblicated lesions and subsequent histological examinations identified the lesion as malignant melanoma deposits. Microcopically the tumour was composed of cluster and sheets of pleomorphic round to spindle cells with nuclear pleomorphism, prominent nucleoli and dense melanin deposits in the cytoplasm obscuring the tumour cells at many areas(fig1b and fig1c), the same was confirmed with immunohistochemistry with HMG45, which showed strong cytoplasmic and membrane positivity (Fig 1d) . A thorough dermatologic examination , and careful history taking patient revealed pigmented cutaneous ulcer in the left foot 4 years back, which regressed spontaneously. On examination of left foot no ulcer seen except for a small pigmented scar. Patient died in a week due to poor nutritional status and disseminated disease.

DISCUSSION: Melanoma accounts for 1-3% of all malignant tumours . Malignant Melanoma involving gastrointestinal tract can be primary or metastatic. Among GI mucosal sites, melanoma has been reported to arise in small bowel (70%), anorectum (15%), esophagus(10%) and stomach (5-7%) [4,5]. Scattered cases of primary melanoma arising in the stomach have also been reported[1,3,4,5,6,7]. Metastatic Melanoma of stomach is a relatively a rare and unusual entity diagnosed.[8].

Autopsy done on melanoma patients reveal gastrointestinal metastases are frequent. But often patients are not diagnosed during antemortem due to asymptomatic nature of gastrointestinal involvement by melanomas and patients are often diagnosed of GI metastases when presenting with emergency situations such as obstructions, bleeding or perforation[1-4] .To diagnose gastric metastases upper GI endoscopy is the most important tool allowing morphological assessment and also to take direct biopsy of the lesion. The gastric metastases in endoscopy resembles by three morphological types. Firstly and most commonly they can be melanotic nodules ulcerated at the tip . Secondly as submucosal nodules, can be melonotic or amelanotic, often presenting with ulceration at the apex. This is the typical aspect most often seen at the greater curvature and are commonly called as "bull's eye" lesions. The third type present as mass lesion with areas of necrosis and melanosis. Occasional gastric metastases also present as simple ulcer[2]. In our patient, the endoscopic picture of the gastric lesion showed it to be melanotic at gastric fundus with multiple black umblicated ulcers resembling second type.

Scattered cases of primary gastric melanoma been reported as case reports.[6] Fewer than 15 cases of primary gastric melanoma have been documented in the literature. To call as primary gastric melanoma no concurrent or previous removal of a melanoma or atypical melanotic lesion from the skin, lack of other organ involvement and in-situ change in the overlying or adjacent GI epithelium, histologically evidenced as the presence of atypical melanotic cells in the basal layer of the epithelium and extending in a “pagetoid” fashion into the more superficial epithelium [9,10,11] Additionally, disease free survival of the patients for at least 12 months after curative surgical excision of the involved organ has been proposed as a criterion for the distinction of a primary lesion from metastatic. Mostly 50% of patients with stage IV melanoma or visceral disease from unknown primary will have died at 12 months from diagnosis[9,10].

The high mortality rate observed in these patients is associated with multiple metastases to other organs, such as lungs, liver, pancreas, spleen, endocrine glands, and brain[14].

Prognosis is extremely poor due to the frequent delay in diagnosis, the inherently more aggressive nature of the tumor, and earlier dissemination due to the rich lymphatic and vascular supply of the gastrointestinal mucosa. Prognosis as such is very poor with a median survival of 6-9 months.

Management include surgical resection, chemotherapy and immunotherapy. Surgical interventions for symptomatic patients with melanoma metsatases of the GI tract may be considered for both palliation of symptoms and improvement of mortality. Chemotherapy options include interferon, interleukin-12, and other agents. New therapeutic possibilities recently been developed include vemurafenib and Ibilimumab, though they have limitations of cost effectiveness, they are new generation therapies especially in stage IV patients[13].

Conclusions

1. Metastatic melanoma in stomach should be suspected in any patient with a previous history of pigmented skin lesions who develops GI symptoms or chronic blood loss;
2. Immunohistochemistry is often useful in distinguishing between a malignant melanoma and other malignancies.
3. Mucosal Melanomas appear to be more aggressive and have worse prognosis than cutaneous melanomas.

4. Metastatic melanoma can be pigmented or amelonotic, and may present at the time of diagnosis or years later, even after the primary tumor regression.
5. These patients with gastric metastases have benefit from an aggressive approach, though prognosis is very poor with a median survival of 6-9 months.

Legends

Fig 1A : Upper GI endoscope done which showed multiple umbilicated, ulcerated lesions throughout the stomach

Fig 1B - Cluster and sheets of pleomorphic round to spindle cells with nuclear pleomorphism, with dense melanin deposits in the cytoplasm H&E satin, low power x10

Fig IC- Sheets of pleomorphic round to spindle cells with nuclear pleomorphism, prominent nucleoli and dense melanin deposits in the cytoplasm , H&E satin, high power x40

Fig 1D- Strong positivity of cell membrane and cytoplasm of HMB 45 , Immunohistochemistry , high power x40

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