Primary malignant melanoma of right colon

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We report a 62-year-old lady who presented with abdominal lump and neurological deficit. Investigations showed ascending colon mass, subcutaneous nodule and right parietal lobe lesion. Histology and immunohistochemistry were suggestive of malignant melanoma. The search for primary site was negative. [Indian J Gastroenterol 2006;25:96-97]

Malignant melanomas of the gastrointestinal (GI) tract are usually metastatic. Primary malignant melanoma of the GI tract is rare and there is only one report of primary malignant melanoma of the colon.1

A 62-year-old lady presented with 3-month history of generalized weakness, fatiguability, loss of appetite and weight loss of 7 Kg. During the preceding 3 months, she was diagnosed to have anemia but was not investigated further. She became bed-ridden since 8-10 days prior to admission, but had not noticed hemiparesis. On examination, she was pale; abdominal examination revealed a non-tender, firm lump, 5 cm in diameter, in the right iliac fossa with no clinical evidence of obstruction. She had left-sided hemiparesis (muscle power grade 3/5); there was no sensory or cranial nerve deficit.

Investigations: Hemoglobin 5.5 g/dL; hypochromic, microcytic anemia. CT showed an irregular, circumferential thickening in the ascending colon with iliopsoas involvement and subcutaneous nodules; there was no lymphadenopathy. CEA level was high (1870 ng/mL; normal <5). CT brain revealed a 2-cm metastatic mass in the right parietal lobe. Colonoscopy showed a polypoidal mass in the ascending colon; histology showed features of high-grade, mitotically active tumor with superficial ulceration. The tumor cells were large, some epithelioid, with pleomorphic nuclei and prominent nucleoli, and glandular differentiation was absent.

On immunohistochemistry the cells were positive for S-100 but negative for HMB-45 (Fig). A diagnosis of malignant melanoma was made. Examination of the skin, eye and mucosa was negative for primary melanoma or melanocytic lesion.

She was treated with steroids, temozolamide and radiation therapy for brain metastases. Two months later, she developed pyogenic meningitis with progressive deterioration of sensorium and general condition; she expired 3 months after diagnosis.

Malignant melanoma in the gut is usually metastatic. Between 1% and 4% of all patients with malignant melanoma have clinically apparent GI involvement, and up to 60% have metastases at autopsy.2 The small intestine is the most frequent site of metastases in the gut because of its rich blood supply, while the large intestine is the least common site.

Primary malignant melanomas of the GI tract are very rare and occur in the anorectum and esophagus. There are a few reports of primary melanoma in the small bowel3 but primary melanoma in the right colon has been described in only one case report earlier.1 Criteria for primary melanoma include lack of concurrent or previous removal of a melanoma or atypical melanocytic lesion from the skin, lack of other organ involvement, and in situ change in the overlying or adjacent gastrointestinal epithelium.4 This latter feature, recognized histologically by the presence of atypical melanocytic cells in the basal layer of the epithelium and extending in a “pagetoid” fashion into the more superficial epithelium, may be reported in 40%-100% of primary GI melanomas.5

Tumor cells show varying proportions of spindle cells and epithelioid areas and are frequently cohesive. They may either show abundant melanin pigment or may be completely amelanotic. S-100 has a high sensitivity and HMB-45 has high specificity for diagnosis of melanoma. HMB-45 recognizes a premelanosomal glycoprotein related to the tyrosi-
nase system, and may thus be negative in undifferentiated amelanotic neoplasms, as was in our case.

Our patient also had very high CEA value. Besides colon cancer, CEA levels may be elevated in other tumors including malignant melanomas. There are reports of elevated CEA levels in plasma as well as aqueous humor in intraocular malignant melanomas. We did not find any report of elevated CEA in melanoma of colon, probably because of rarity of this condition.

Surgical resection with wide margins, when feasible, is the treatment of choice. Chemotherapeutic agents including interferon-alfa, cytokines, biological agents like vaccines, and radiation therapy for brain metastases have been used as adjuvant and palliative therapy for malignant melanoma in general.

References