



Metastatic melanoma of the stomach and the duodenum

Daniela A. Benedeto-Stojanov¹, Aleksandar V. Nagorni¹, Vesna V. Živković²,
Jovica R. Milanović¹, Dragan A. Stojanov³

ABSTRACT

¹Clinic for Gastroenterology and Hepatology, Faculty of Medicine, Niš, Serbia, ²Institute of Pathology, Faculty of Medicine, Niš, Serbia, ³Institute of Radiology, Faculty of Medicine, Niš, Serbia; Address correspondence to: Dr. Daniela A. Benedeto-Stojanov, Clinic for Gastroenterology and Hepatology, Faculty of Medicine Niš, Bul. Dr. Zorana Đinđića 48, 18000 Niš, Serbia, E-mail: stojanovd@ptt.yu; The manuscript was received: 08.05.2006, Provisionally accepted: 22.05.2006, Accepted for publication: 05.06.2006

©2006, Institute of Oncology Sremska Kamenica, Serbia

A case of metastatic melanoma of the antrum and duodenal bulb is reported with rare endoscopic findings. A 59-year-old male patient was presented with nausea, vomiting, and abdominal pain one year after excision of malignant melanoma from the back. The tumor was classified as Clark IV, Breslow III. Upper gastrointestinal endoscopy revealed one melanotic polypoid mass with ulcerations at the tip in the antrum and two in the duodenal bulb. Endoscopic biopsy of these polypoid masses showed malignant melanoma metastases. Patients with gastrointestinal symptoms and a history of melanoma should be investigated for the presence of gastrointestinal metastases even if the original primary malignancy was diagnosed years prior to the patient presentation.

KEY WORDS: Melanoma; Neoplasm Metastasis; Gastrointestinal Neoplasms; Endoscopy, Gastrointestinal

INTRODUCTION

Secondary neoplasms of the stomach are rare and often present clinical and diagnostic problems. Malignant melanoma is an uncommon malignancy and it is the most common tumor that metastasizes to the gastrointestinal tract (GIT) (1,2). Malignant melanoma metastases in GIT are detected clinically in only 2% of the cases. However, they are found in more than 60% of autopsies on patients who have died with disseminated melanoma. The small bowel is the most common intestinal site for metastases (3). Information on gastric and duodenal metastases, however, is merely limited to single case reports. We report very rare endoscopic findings of malignant melanoma metastases in the gastric antrum and duodenal bulb.

CASE REPORT

A 59-year-old man was admitted to the Clinic for Gastroenterology and Hepatology with a 5-day history of nausea, vomiting, and abdominal pain. His past medical history was significant for skin melanoma of the right side of the back. The tumor had been completely excised one year before, and microscopic examination confirmed a diagnosis of malignant melanoma, Clark IV, Breslow III.

Physical examination revealed lymph nodes enlargement in the right axilla and epigastric pain on palpation. Laboratory data showed white blood cell count, hematocrit, serum electrolytes, BUN, creatinine and liver enzymes within normal limits. Abdominal ultrasonography showed liver steatosis with no evidence of liver or intraabdominal metastases. A chest x-ray and brain computer tomography was unremarkable for metastases.

Upper gastrointestinal endoscopy revealed two melanotic polypoid mass with ulcerations at the tip in the antrum (Figure 1) and one in the duodenal bulb (Figure 2). Endoscopic biopsy of these polypoid masses showed malignant melanoma metastases (Figure 3).



Figure 1. Polypoid melanotic mass with tip ulceration in the antrum



Figure 2. Polypoid melanotic mass with tip ulceration in the duodenal bulb

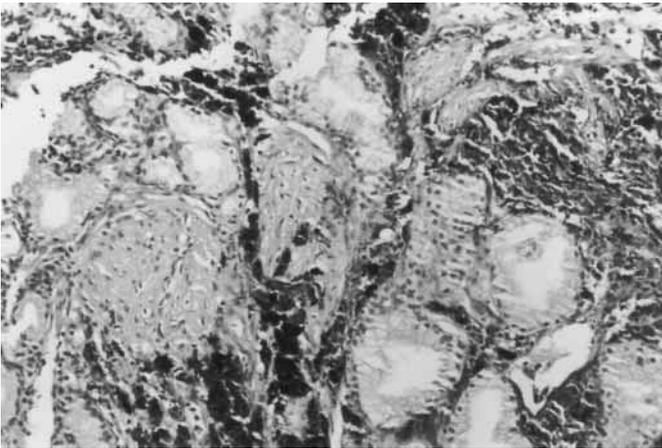


Figure 3. Metastatic melanoma. The melanoma cells exhibit marked nuclear and cytoplasmic pleomorphism and frequent mitoses; many cells contain severe amounts of melanin pigment

DISCUSSION

Malignant melanoma is the most common tumor that metastasizes to the GIT (1-3). The average rate of GIT metastases detected clinically in malignant melanoma patients ante-mortem is only 2.3%, but varies from 0.8% to 8.9% in different series (3,4). The overall incidence of GIT metastases detected post mortem in autopsies of patients who died from disseminated malignant melanoma is in excess of 60% of the cases (3,5). The most common site of GIT melanoma metastasis is the small bowel (35%-97%) (6-8). The stomach and duodenum are involved in 5%-50% of the cases (1,2). Malignant melanoma is the most frequent tumor to metastasize to the stomach (29.6%) (3). One third of patients with metastases have two or more parts of the GIT involved.

The primary melanoma in patients with GIT metastases is typically located in the extremities (15%-57% of the cases) and trunk (13%-54%), and less frequently in the head and neck (5%-33%) (4). Primary lesion is occult in 10%-26% of the cases (4). The risk of melanoma spread to the GIT is higher among patients with a primary lesion classified as Clark III or above, occurring in 70%-100% of such patients, whereas it occurs in 5%-24% of the patients with Clark II and 0%-6% of the patients with Clark I. These characteristics are consistent with our patient, whose primary melanoma was located on the back and graded as Clark IV, Breslow III.

The average time from the diagnosis of the primary tumor to the detection of GIT metastases is 43.8 ± 11.3 (range 21.6-54) months (5). It varies from 2 months up to 12 years. Metastases to the GIT have been reported up to 21 years after the initial presentation of the melanoma.

Metastatic melanoma of the stomach may be presented with vague gastrointestinal symptoms, nausea, vomiting, abdominal pain, gastrointestinal bleeding, and weight loss (5). The median duration of symptoms of GIT metastases ranges from 2 to 5.5 months.

Endoscopy is useful in the diagnosis and local treatment of gastric metastasis. Endoscopic appearances of metastases might take one of several forms: multiple small submucosal nodules, a polypoid mass, ulceration, and large extrinsic tumor mass. These lesions could be melanotic and easily recognizable or amelanotic and therefore difficult to differentiate from other sources of metastases or tumors, e.g. mucosa-associated lymphoid tissue (MALT) lymphoma. Endoscopic biopsies are especially recommended in amelanotic metastases, which may be expected in up to 50% of cases. Biopsies confirmed the diagnosis of melanoma in only 65% of the cases on one series. Tumor negative biopsies may be explained by sampling error or submucosal localization, a region not accessible to the endoscopic biopsy forceps.

Radiologically, GIT metastases can appear as polypoid lesions, ulcerating lesions with cavitation, submucosal nodules or diffuse thickening of the intestinal wall. A classic radiological appearance is that of a "bull's eye" which is seen when barium fills a central ulcer in a metastatic nodule.

The prognosis of patients with distant metastatic disease is very poor. Patients with gastrointestinal metastases have a median survival period of 12.5 months and an estimated 5-year survival rate of 14%.

Patients with gastrointestinal symptoms and a history of melanoma should be examined for the presence of GIT metastases even if the original primary malignancy had been diagnosed years prior to the patient presentation.

REFERENCES

1. Liang KV, Sanderson SO, Nowakowski GS, Arora AS. Metastatic malignant melanoma of the gastrointestinal tract. *Mayo Clin Proc* 2006;81:511-6.
2. Malladi V, Palanivelu C, Mathew S, Rajan PS, Kalpesh J, Senthilkumar R, et al. Malignant melanoma metastatic to the stomach and duodenum. *Indian J Gastroenterol* 2005; 24:133.
3. Oda HK, Yamao TS, Ono HG, Gotoda TY, Yamaguchi HY, Yoshida S, et al. Metastatic tumors to the stomach: analysis of 54 patients diagnosed at endoscopy and 347 autopsy cases. *Endoscopy* 2001;33:507-10.
4. Retsas S, Christofyllakis C. Melanoma involving the gastrointestinal tract. *Anticancer Res* 2001;21:1503-8.
5. Wysocki WM, Komorowski AL, Darasz Z. Gastrointestinal metastases from malignant melanoma: Report of a case. *Surg Today* 2004;34:542-6.
6. Gatsoulis N, Roukounakis N, Kafetzis I, Gasteratos S, Mavrakis G. Small bowel intussusception due to metastatic malignant melanoma. A case report. *Tech Coloproctol* 2004;8 Suppl 1:s141-3.
7. Marin M, Vlad L, Grigorescu M, Sparchez Z, Dumitra D, Muti L. Metastasis of malignant melanoma in the small intestine. A case report. *Rom J Gastroenterol* 2002;11:53-6.
8. Panagiotou I, Broutzos EN, Bafaloukos D, Stoupis C, Brestas P, Kelekis DA. Malignant melanoma metastatic to the gastrointestinal tract. *Melanoma Res* 2002;12:169-73.