



A case report of stomach and esophagus melanoma with liver metastases in a 63-year-old woman

Ahmad Fotoohi¹, Bayazid Ghaderi², Mohsen Rajabnia¹, Rojin Ramezani¹, Amir Reza Hajati¹

1 Student Research Committee, Kurdistan University of Medical Sciences, Sanandaj, Iran

2 Department of Internal Medicine, Faculty of Medicine, Kurdistan University of Medical Sciences, Sanandaj, Iran

Case Report

Abstract

BACKGROUND: Melanoma originates from melanocytes, which are dendritic pigmented cells. Malignant melanoma is divided into cutaneous and non-cutaneous types, and cutaneous one is the most common type. Gastric melanoma has rarely been reported, and is divided into primary and secondary categories.

CASE REPORT: We report a 63-year-old woman with continuous epigastric pain complaining of bloody defecation with elucidated blood, lack of appetite, weight loss, and icteric skin. She was a known case of hypertension, and a surgery of the left eye mass was done for her, which the patient's eye was discharged completely. The patient's biopsy sample was not sent for pathology, and there was no pathology result. The patient was evaluated with endoscopy because of epigastric pain of 6 months before. In addition to class A esophagitis, a nodule with an approximate dimension of 1 cm was seen in the Z-line of the esophagus, and two black lesions in the greater curvature of the stomach were seen, which biopsy of all these lesions was done. In the pathological study of biopsy specimens in a microscopic view, the replication of scattered hotspots in submucosa with atypical cells, large nuclei, and dark brown pigmentation were observed. In the immunohistochemistry study, HMB-25, Ki-67, carcinoembryonic antigen (CEA), and S100 were positive. Ultimately, the patient was diagnosed with melanoma.

CONCLUSION: This report demonstrates the importance of medical documentation in determining the origin of diseases. as, if there was documentary evidence of the evacuated eye mass, differentiation of the primary or metastatic melanoma was possible.

KEYWORDS: Melanoma, Skin Neoplasms, Metastasis

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Introduction

Melanoma originates from melanocyte, which is a dendritic pigmented cell. These cells are located in the epidermis, hair follicles, eyes, ears, and meninges. Malignant melanoma is divided into cutaneous and non-cutaneous types. Cutaneous one is the most common type, which accounts for 91.2% of malignant melanoma. Non-cutaneous melanomas include 5.2% of ocular melanoma, 1.4% of mucosal melanoma, and 2.2% of melanoma with

unknown origin.¹ The most involved area in mucosal melanoma is the anorectal area, and the cases of the esophagus, stomach, and small intestine are uncommon. Gastric melanoma has rarely been reported in articles which are divided into primary and secondary categories.²

In the meantime, the secondary type is more common than the early one. The pathogenesis of the primary gastric melanoma is still unclear, but mechanisms such as the migration of melanocyte cells, neoplastic transformations, and decarboxylation of cells into melanocytes have been proposed.^{3,4} Blecker et al. have developed some criteria for the diagnosis of early gastric

Corresponding Author:

Mohsen Rajabnia

Email: dr.rajabnia@outlook.com

melanoma, including 1. lack of any primary defect, 2. lack of history of any defects of the skin related melanoma or to other organs that have been removed, 3. lack of extra-intestinal metastases expressive melanoma, and 4. presence of intramucosal membrane that is close to the epithelium.⁵

Due to the low incidence of the disease, there is no formal therapeutic protocol for gastrointestinal melanomas, especially gastric melanomas. However, in papers, gastrectomy has been suggested not only to maintain therapy but also to increase patient survival.⁶ The role of chemotherapy, immunotherapy, radiotherapy, vaccination, and other possible treatments is still under discussion.

Case Report

Here, we report a 63-year-old Caucasian woman who referred to the emergency department of the Tohid hospital in Sanandaj City, Iran, with a chief complaint of severe abdominal pain in the epigastric region. The patient's pain was occasional in the past 75 days, but became continuous and severe over the past 3 days. During this time, the patient complained of a bloody defecation with elucidated blood, lack of appetite, weight loss, and icteric skin. The patient did not complain from shortness of breath, coughing, sputum, and hemoptysis. Moreover, there was no complaint of dysuria, frequency, and hematuria.

In the past medical history, she was a known case of hypertension, and a surgery of the left eye mass was done for her, in which, the patient's eye was discharged completely, and she had a prosthesis. In her last surgery, the patient's biopsy sample was not sent for pathology, and there was no pathology result.

The patient's vital signs at the time of entry were stable, blood pressure: 124/75 mmHg, respiratory rate: 18 per minute, pulse rate: 84 per minute, and temperature: 37 °C. In the physical examination, she was restlessness with a bitemporal cachexia. She had a clearly

icteric skin. There was no positive point in the examination of the head and neck, and the patient's jugular venous pressure (JVP) was elevated. There was no whirring sound in the heartbeats, and respiratory sounds were normal. There was an obvious distention in the abdomen. The patient's liver was exposed 9 cm below the ribs by palpation. The lower limbs have +++ edema. In primary biochemical laboratory tests, fasting blood sugar (FBS) of 60 mg/dl, blood sugar (BS): 142 mg/dl, blood urea nitrogen (BUN): 39 mg/dl, creatinine (Cr): 1.56 mg/dl, Na: 133 mEq/l, K: 4 mEq/l, erythrocyte sedimentation rate (ESR): 3 mm/hour, C-reactive protein (CRP): 20 mg/l, prothrombin time (PT): 18 s, partial thromboplastin time (PTT): 49 s, international normalized ratio (INR): 2.4, total protein: 5.2 g/dl, albumin: 2.3 g/dl, total bilirubin: 16 mg/dl, direct bilirubin: 10.5 mg/dl, aspartate aminotransferase (AST): 219 IU/l, alanine aminotransferase (ALT): 85 IU/l, alkaline phosphatase (ALP): 1371 IU/l, lactate dehydrogenase (LDH): 7360 IU/l, creating phosphokinase (CPK): 100 IU/l, white blood cell (WBC): 10000 / μ l, red blood cell (RBC): 4.01 million/ μ l, hemoglobin (Hb): 14.9 g/dl, platelets (Plt): 300000 / μ l, and troponin: negative were reported.

The patient was evaluated with endoscopy due to epigastric pain of 6 months prior to admission. In addition to class A esophagitis, a nodule with an approximate dimension of 1 cm in the Z-line of the esophagus and two black lesions in the greater curvature of the stomach were seen, which biopsy of all these lesions was done. In a pathological study of biopsy samples in the microscopic view, the replication of scattered hotspots in submucosa with atypical cells, large nuclei, and dark brown pigmentation were observed. In the immunohistochemistry staining, HMB25, Ki67, CEA, and S100 were positive. Ultimately, according to the microscopic view and immunohistochemical staining, the

patient has been diagnosed with Gastric or stomach melanoma.

While hospitalization, regarding the size of the liver, a sonography was done in which the liver was larger than normal size, and multiple solid and cystic centers were seen throughout the liver. But, the assessment of internal and external hepatic and bile ducts could not be done. Abdominal computed tomography (CT) scan was performed for further evaluation in which multiple echogenic masses with different sizes in liver parenchyma were reported which suggested metastatic lesions.

Discussion

Melanoma involves 1-3 percent of malignant cancers, which often occurs in the natural places of the presence of melanocytes.⁴ This cancer is considered as an invasive cancer. Gastrointestinal system melanoma is usually due to metastasis. Nonetheless, there are cases of primary gastrointestinal melanoma reports.^{2,4,6-17} Esophagus melanoma is the most common form of primary gastrointestinal melanoma.⁴

Based on the criteria presented by Blecker *et al.*,⁵ researchers have considered the theory of early gastrointestinal melanoma as quite possible. In this case, there was no initial lesion (first criterion), and presence of the previous melanoma was not clear (second criterion); because there was no eye mass pathology result. The detection of esophageal melanoma lesions were prior to the metastatic hepatic lesions (third criterion). And ultimately, pathologic evidence confirmed the diagnosis (fourth criterion). Therefore, the diagnosis of early gastrointestinal melanoma was detected.

This report demonstrates the importance of medical documentation in determining the origin of diseases. Because, if there was documentary evidence of the previous eye mass, the differentiation of the primary or metastatic melanoma was possible. In any case, gastrointestinal melanoma is rare, which is reported in this article.

Conflict of Interests

Authors have no conflict of interests.

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