Unusual metastasis of esophageal cancer

Neobična metastaza karcinoma jednjaka

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Abstract

Introduction. Carcinoma of the esophagus is in the eighth place by the frequency of malignant diseases and the sixth cause of death from cancer worldwide. It usually metastasizes to regional lymph nodes, liver, lungs, central nervous system, and bones, but metastases can appear to unusual locations such as facial skin and lips. Case report. We presented a 56-year-old man who reported to his physician because of upper lip swelling. A physical checkup of the patients also showed a lesion on the skin of the left temporal region and both lesions were biopsied. Based on the results of histopathological and immunohistochemical analyses of the samples a diagnosis of metastatic adenocarcinoma to the skin was established. Additional diagnostic procedures, including esophagogastroduodenoscopy, detected the infiltration into the distal part of esophagus, which was histopathologically confirmed as adenocarcinoma of esophagus. The results of positron emission tomography/computed tomography (PET/CT) examination showed the invasion of the disease. Because of the disease expansion, a multidisciplinary oncology team suggested chemo- and radiotherapy treatment. The patient has received 4 cycles of platinum-based chemotherapy so far. Conclusion. The physicians should always consider unusual skin lesions as the first sign of cancer spreading.

Key words: esophageal neoplasms; neoplasm metastasis; lip; diagnosis; adenocarcinoma; histological techniques; immunohistochemistry.

Introduction

Carcinoma of the esophagus is sixth cause of death from cancer worldwide (fifth cause from cancer among men and eighth among women). China, countries of Central Asia, and certain parts of America are the regions with the highest incidence. In Europe, carcinoma of the esophagus is a rare malignant disease. In Serbia about 460 newly diagnosed patients are registered annually. The highest incidence is in the region of Vojvodina and it ranges 7 new cases per 100,000 yearly.

Mostly it affects older population in the sixth decade of life. Adenocarcinoma of the esophagus most frequently metastasizes to regional lymph nodes, liver, lungs, central nervous system, bones and rarely to facial skin and scalp.

Case report

A 56-year-male patient visited the physician because of the skin lesion on his upper lip and skin of the left temporal region. Both lesions were biopsied and the samples were
histopathologically analyzed. Based on routine hematoxylin and eosin staining (Figure 1) the diagnosis of metastatic adenocarcinoma was established. Because of the immunoprofile of tumor cells [cytokeratin (CK) 7 positive (Figure 2), epithelial membrane antigen (EMA) positive (Figure 3 and 4), carcinoembryonic antigen epithelial membrane antigen (CEA) positive, CK20, and thyroid transcription factor-1 (TTF-1) negative] additional immunohistochemical analysis of tumor tissue was done. The results presented as adenocarcinoma metastasis to skin.

Fig. 1 – Mucosa and submucosa of the esophagus infiltrated by tumor tissue (hematoxylin and eosin staining, × 10).

Fig. 2 – Tumor tissue infiltration into the skin of the upper lip (Cytokeratin7+, × 4).

Fig. 3 – Tumor tissue infiltration into the skin of the upper lip (Epithelial membrane antigen +, × 4).

Fig. 4 – Tumor tissue infiltration into the skin of the left temporal region (Epithelial membrane antigen +, × 4).
The incidence of esophageal adenocarcinoma is significantly increasing. Most patients present at the advanced stage where therapeutic measures with a curative intent are not feasible. Carcinoma of the esophagus characterized with biologically aggressive course, local infiltration, involvement of adjacent lymph nodes, and distant metastases by means of hematogenous routes. Most frequently it metastasizes to lymph nodes (45%), liver (35%), lungs (20%), skeleton (10%), peritoneum (2%), and brain (1.5%). In total of 4,000 cases of metastatic esophageal carcinoma skin metastases were found in about 10% of patients. Squamous cell carcinoma and adenocarcinoma of the esophagus metastasize to the skin with and equal frequency in less than 1% of cases. Similar to our case, Nisi et al. report a case of esophageal carcinoma with upper lip metastases. The patient was confirmed to be affected with adenocarcinoma of the gastroesophageal junction with secondary deposits. Iwanski et al. describe a patient with disseminated and extensive skin lesions. Histopathological analyses of these lesions show the presence of esophageal carcinoma. Maheshwari et al. report a case of a female patient with skin lesions and difficulties in swallowing. Adequate diagnostic procedures and histopathological analysis of the lesions confirm skin metastases. Herbella et al. describe a case of a patient with dysphagia and painless but rapidly advancing ulcerations on nose and neck, which all were histopathologically verified as metastases from squamous cell carcinoma of the esophagus.

There is also a report on a patient presented with skin lesions two years after the operation of adenocarcinoma of the gastroesophageal junction; the lesion was histopathologically verified as adenocarcinoma. Metastasizing of esophageal adenocarcinoma to the upper lip is rare and with poor prognosis because of the high probability of secondary localization of the disease. In total a 4-year survival of patients affected with carcinoma of the esophagus, regardless the stage of the disease, is lower than 10%, and 21% after the surgical treatment.

Conclusion

Physicians should always consider unusual lesion of the skin, which may be the first sign of disease expansion.

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