Arch Oncol 2004;12(Suppl 1)

Nebojša MITIĆ[1]
Danilo MILIŠIĆ[2]
Dragutin SAVJAK[3]
Dragan VELIMIROVIĆ[4]
Danica VUKIĆEVIĆ[1]
Predrag SIMIĆ[2]
Zlatibor ANĐELKOVIĆ[1]

[1]INSTITUTE OF PATHOLOGY, FACULTY OF MEDICINE PRIŠTINA, SERBIA AND MONTENEGRO
[2]GENERAL HOSPITAL TREBINJE, REPUBLIC OF SRPSKA
[3]INSTITUTE OF PATHOLOGY, FACULTY OF MEDICINE PODGORICA, SERBIA AND MONTENEGRO
[4]INSTITUTE OF PATHOLOGY, FACULTY OF MEDICINE BELGRADE, SERBIA AND MONTENEGRO

Metastasis of small cell carcinoma in soft tissue of brachial region two years before carcinoma of the pancreas

KEYWORDS: Carcinoma, Small Cell; Pancreatic Neoplasms; Neoplasms Metastasis

INTRODUCTION

Extrapulmonary small cell cancer was first described by Duguid and Kennedy in 1930 (1), only a few years after the original description of oat cell carcinoma. It is defined by the presence of a small cell cancer in the absence of any evidence of lung primary, with normal chest CT and normal sputum cytology or bronchoscopy. Histologically, the diagnosis is made by the presence of "small blue cells" in conjunction with immunohistochemical markers: the tumor typically stains for cytokeratin and neuroendocrine markers. However, neuron-specific enolase, may be negative. Thyroid transcription factor 1 has been recently shown to be helpful in the identification of small cell lung cancer, but it also indicates extrapulmonary small cell cancer, thereby not guiding in the origin of disease (2,3). Extrapulmonary small cell cancer is thought to be of endocrine origin, likely arising from cells of the APUD system, or alternatively, from a totipotent stem cell. It is a very rare entity, accounting for approximately 1000 new cases each year in the U.S., or for 0.1-0.4% of all malignancies. It typically affects elderly men, with a mean age of 63 years, but cases as young as 24 years have been reported (4-6). A smoking history can be found in the majority of patients. Extrapulmonary small cell cancer can affect any organ system; in a recent review from the Mayo Clinic, involvement of the gastrointestinal tract accounted for 38% of all cases, occurring mainly in the colon, esophagus, and pancreas, but the head and neck region (17%), as well as the genitourinary tract (15%) and gynecologic organs (12%) are also more commonly involved (6). Involvement of the pancreas has only been described in a few case reports (7-9). The occurrence of paraneoplastic syndromes in these patients due to ACTH overproduction (10,11) and hypercalcemia has been reported.

CASE REPORT

We report a case of unusual example of metastatic small cell cancer in subcutaneous soft tissue of the right brachial region. In April 2001, surgical excision of well-bounded, roundish, soft tissue tumor, from the right brachial region, of 61 years old male, was done. There were neither changes on the overlaying skin, nor clinical suspicion of malignancy. Macroscopical analyses showed partly necrotic tumor, which was well-bounded, roundish, soft, white-grayish, with the diameter of 3 cm, and overlaying skin without any change. Microscopically, on the routine H-E stained sections, there was undifferentiated tumor tissue, exhibited islands of small, mainly rounded cells, with scanty cytoplasm and hyperchromatic nuclei, and with a numerous number of mitosis. The interspersed fibrous stroma was scanty. Tumor was subcutaneous. The diagnosis was metastatic microcellular carcinoma with suspicion that the prime localization probably was lungs, and suggested that the urgent bronchoscopy was indicated.

The sputum cytology, chest CT, bronchoscopy and laboratory analyses were done although, the patient didn't have any clinical symptoms. There was no evidence of any change of lungs, and other examinations were necessary to be done. When the irigography, abdomen CT, examinations of prostate and other systems were done, there was no evidence of prime tumor.

After a year, in May 2002, patient came with huge, exulcerated tumor in the same place infiltrating lower third of brachial and all cubital region. Surgical dilemma was amputation, however, the huge resection of tumor was done.

Macroscopically, it was exulcerated, white-grayish, partly necrotic tumor, with the diameter more than 12 cm. Histologically, in the routine sections, tumor was the same like the first time. Later, the sections were stained with Gomory, LCA, CK, Chromogranin A, PAS, ERA, NSE, S 100. The diagnosis of metastatic microcellular carcinoma was repeated. However, the patient didn't have any clinical symptoms, and still there was no evidence of prime tumor.

In December, same year, the patient reported jaundice, epigastric pain, and weight waste. Radiographical, US, and clinical examinations found tumor of the pancreas head. The upper medial laparotomy was done, and the great, nodular tumor of the head of the pancreas with compression on d. choledochus and the ampulla of Vater, was found. The palliative surgical intervention, choledochojejunoanastomosis by Roux with cholecystectomia, and minimal biopsy of tumor, was done. After surgical intervention, the patient was discolored, but his condition got worse, and soon he died. In the biopsy specimen, histology of the pancreas tumor, was the same as earlier at brachial tumor. Unfortunately, there was no autopsy.

CONCLUSION

There is a dilemma: whether there was the prime localization of small cell cancer in the pancreas head? Is there a dilemma: autopsy, yes or no?

REFERENCES

1. Duguid JB, Kennedy AM. Oat-cell tumours of mediastinal glands. J Pathol Bacteriol 1930;33:93-9.

2. Cheuk W, Chan JK. Thyroid transcription factor-1 is of limited value in practical distinction between pulmonary and extrapulmonary small cell carcinomas. Am J Surg Pathol 2001;25:545-6.

3. Kaufmann O, Dietel M. Expression of thyroid transcription factor-1 in pulmonary and extrapulmonary small cell carcinomas and other neuroendocrine carcinomas of various primary sites. Histopathology 2000;36:415-20.

4. Remick SC, Hafez GR, Carbone PP. Extrapulmonary small-cell carcinoma. A review of the literature with emphasis on therapy and outcome. Medicine (Baltimore) 1987;66:457-71.

5. Richardson RL, Weiland LH. Undifferentiated small cell carcinomas in extrapulmonary sites. Semin Oncol 1982;9:484-96.

6. Galanis E, Frytak S, Lloyd RV. Extrapulmonary small cell carcinoma. Cancer 1997;79:1729-36.

7. Chetty R, Clark SP, Pitson GA. Primary small cell carcinoma of the pancreas. Pathology 1993;25:240-2.

8. Reyes CV, Wang T. Undifferentiated small cell carcinoma of the pancreas: a report of five cases. Cancer 1981;47:2500-2.

9. Ordonez NG, Cleary KR, Mackay B. Small cell undifferentiated carcinoma of the pancreas. Ultrastruct Pathol 1997;21:467-74.

10. Sandler M, Rubin PC, Reid JL, Smith GD. Oat cell carcinoma in the pancreas: an unusual cause of Cushing's syndrome. Br J Hosp Med 1992;47:537-8.

11. Corrin B, Gilby ED, Jones NF, Patrick J. Oat cell carcinoma of the pancreas with ectopic ACTH secretion. Cancer 1973;31:1523-7.

Address correspondence to:
Dr. Nebojša Mitić, Institute of Pathology, Faculty of Medicine Priština, Serbia and Montenegro

The manuscript was received: 15. 02. 2004.
Provisionaly accepted: 15.03.2004.
Accepted for publication: 23.03.2004.