Unusual presentation of a huge hematoma in the liver derived from a nasopharyngeal carcinoma

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Introduction: Nasopharyngeal carcinoma (NPC) has the propensity to develop distant metastases at a high rate and with poor prognosis. The metastatic sites are usually multifocal and involve the bones, lungs, liver and distant lymph nodes. The management of metastatic disease is essentially palliative and is based on radiochemotherapy.

Methods: A 50-year old man with a huge hematoma in the liver derived from a diagnosed NPC was treated with intermittent drainage of the hepatic hematoma for abdominal decompression, and the cavity was packed with omentum. In addition, 2 suspected metastatic lesions were excised. Neoadjuvant radiochemotherapy followed by concurrent chemotherapy was administered.

Results: After surgical treatment of the huge hematoma, the suspect sites in the liver were diagnosed as metastatic carcinoma, similar to the primary tumor. Several months later, bone metastatic lesions in the vertebra and oss iliaca dextra were detected due to distant metastasis.

Conclusion: Treatment of metastatic NPC is essentially palliative and survival is usually poor.

Key words: nasopharyngeal carcinoma, chemotherapy, radiotherapy, palliative treatment

INTRODUCTION

Nasopharyngeal carcinoma (NPC) is a squamous cell carcinoma arising from the epithelium of the nasopharynx. NPC accounts for 70% of nasopharyngeal malignancies and represents 0.25% of all malignancies in Caucasian patients. These neoplasm are much more common in patients of southern Chinese origin, with an incidence of 18 per 100,000, whereas in western countries, the incidence is less than 1 per 100,0001,2. There is a strong indication of viral origin, as elevated titers of Epstein-Barr virus antibodies are found in almost all patients with advanced NPC3.

The incidence of NPC is 1 per 100,000 men and 0.4 per 100,000 women. NPC affects men more often than it does women. Patients are typically in the sixth decade of life4. The World Health Organization (WHO) classifies epithelial NPCs into 2 subtypes depending on whether the squamous cell carcinoma is keratinizing (type 1) or non-keratinizing (type 2). The latter is further subdivided into differentiated (2a) and undifferentiated (undifferentiated carcinoma of nasopharyngeal type) (2b) forms. As nasopharyngeal squamous cell carcinoma is often heavily infiltrated with lymphocytes, subtypes 2a and 2b are often termed lymphoepitheliomas5.

CASE REPORT

In 1999, a 50-year-old man was treated for a retropharyngeal abscess. During a routine abdominal ultrasonography in 2008, 2 solid cystic lesions were detected in the liver, in segments 3 and 6. A computed tomography (CT-scan) confirmed the ultrasonography findings. The sizes of the lesions in segments 3 and 6 were 7 x 4 cm and 5 x 4 cm, respectively. On the basis of their size, the lesions were considered metastases; however, this interpretation was reserved because of the primary carcinoma was not detected. Accordingly, the lesions were considered suspicious with the main diagnosis of echinococcosis, but follow-up surveillance was recommended.

During the last months of 2009, a swelling appeared on the left side of the patient’s neck. Histological examination revealed an undifferentiated type of NPC. In January-February 2010, the patient was treated with local radiation therapy combined with chemotherapy, consisting of cisplatin, 5-fluouracil (5-FU), and taxotere. Radiotherapy lasted 6 weeks.
The next CT scan showed that the lesions in the liver were reduced and appeared as clear cysts without a solid component, with dimensions of 4.5 x 3.5 cm and 5 x 4.5 cm in segments 3 and 6, respectively. This result confirmed the effectiveness of chemotherapy on the suspicious lesions and was a strong incentive to reconsider their metastatic nature.

In July 2010, the patient complained of abdominal fullness, poor appetite, and general weakness. He was admitted to the hospital for further treatment. During hospitalization, physical examinations showed an ovoid shape in the abdomen with tenderness. A CT scan revealed a huge cystic lesion in the liver localized in segments 4, 5, and 6 (dimension 16 cm x 14 cm). The patient underwent intermittent drainage of the huge hepatic hematoma lesion for abdominal decompression, and the cavity was packed with omentum (Fig.1). Adequate analgesia with psychological treatment was administered continuously. In addition, a biopsy of the 2 site lesions was performed. Histological examination revealed a metastatic carcinoma with morphological and immunophenotypical characteristics similar to those of the primary tumor. After the intervention, the patient underwent concurrent chemotherapy with cisplatin and 5-FU.

After treatment, the condition of the patient was aggravated, and 3 months later, another CT scan showed a metastatic bone lesion in thoracic vertebra 11, lumbar vertebra 1, and in the os iliac dextra (Fig.2 & 3).

**DISCUSSION**

The reported incidence of distant metastases arising from NPC ranges from 17% to 54%6. The bone, lung, liver, and distant lymph nodes are the most common sites of distant metastases7. The liver is the third most frequent site of metastasis, with an incidence of 29.3–38%6,8. Cystic liver metastases are rare; they usually derive from colorectal cancer9 and rarely from pancreatic, gastric, or lung cancer10. The cause of the cystic change in these secondary liver tumors is not well understood, but this change could be induced by many factors, such as infectious or congenital diseases, liver injuries, benign tumors, or liver metastasis of other malignant tumors (e.g., carcinoid, ovary, and pancreas). The hemorrhage and necrosis usually present in these lesions are believed indicate that the tumor has grown rapidly, outstripping its blood supply11. NPC with liver invasion usually presents as solitary or multiple solid tumor metastases7. The distant metastasis in NPC has remained the major cause of mortality and treatment failure, despite better locoregional control of the disease12.

Advanced locoregional and nodal disease is strongly correlated with poor prognosis and high incidence of metastatic disease6. Median survival time after the development of metastasis is reported to be 8 months8, whereas some series report a disease-free survival rate ranging between 82 and 190 months13.

Poly-chemotherapy can be considered as the standard of care in patients with metastatic NPC14. Cisplatin-based combination chemotherapy is the most effective standard treatment for metastatic NPC15. The combination of cisplatin and infusional 5-FU remains the most commonly used first-line treatment, with a 66-76% response rate16. More intensive combinations elicit a higher response rate, but are also usually associated with increased toxicities. None of these combinations have been directly compared with the combination of cisplatin and 5-FU yet17.

Twenty long-term (more than 36 months) disease-free survivors of metastatic NPC (bone, lung, or liver) from the Institut Gustave-Roussy have been reported to receive
4 different intensive chemotherapy protocols, including cisplatin, bleomycin, 5-FU, epirubicin, or mitomycin. This suggests a potential curative role for chemotherapy in metastatic NPC and provides a major incentive for continued research to determine more effective combination chemotherapies with a view to increasing the percentage of patients who attain complete responses and long-term survival13. Hepatic resection is an effective and potentially curative procedure for patients with liver metastases from colorectal and neuroendocrine malignancies, with a 5-year survival rate of 30-51% and 50-76%, respectively, according to various studies18. The Memorial Sloan-Kettering group 18 has reported 2 cases of liver resection for metastases from NPC with long-term outcomes. Similar results were reported by Elias et al. in 5 patients with head and neck tumors who had undergone liver resection19. Another method for early detection of distant metastases of NPC is positron emission tomography using fluorine-18-labeled fluoride deoxyglucose20. This method was not used in this case. However, early detection of further liver metastases might not have changed clinical management nor improved patient survival21. The prognosis of patients with liver metastasis is considered to be poorer than those of patients with lung or bone metastasis22. In conclusion, the treatment of metastatic NPC is essentially palliative, despite several treatments with radi-ochemotherapy or surgery, and the survival is usually poor. Palliative treatment is important in reducing the patient’s discomfort and improving the quality of life.

SUMMARY

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REFERENCES