Malignant Melanoma of the Nasal Cavity

—Report of a Case—

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Summary: A case of malignant melanoma arising from the nasal cavity of a 65-year-old male was reported. The first symptom was nasal obstruction and epistaxis. Polyp-like tumors were observed in the left nasal cavity. X-ray films revealed an involvement of the maxillary and ethmoid sinuses. An extensive surgical procedure including ophthalmectomy was refused by the patient, and therefore, partial maxillectomy and cryosurgery were done as the initial treatment. But recurrences of the primary lesion occurred. Total maxillectomy, ophthalmectomy, radical neck dissection and immunotherapy were done for the recurrent tumors. An invasion into the frontal cranial base was observed during the final operation. Purulent meningitis occurred after the surgery. The patient died 1 year and 10 months after the initial treatment.

Key words: malignant melanoma — melanoma — nasal cavity — melanoma of nasal cavity

Introduction

Malignant melanoma of the nasal cavity is a rare condition and its prognosis is poor. This paper presents report of a case of malignant melanoma arising from the nasal cavity of a 65-year-old male treated in Kurume University Hospital.

Case Report

A 65-year-old male developed nasal obstruction and nasal bleeding on the left side early in November 1979. He visited another private clinic, where multiple small polyps were pointed out in the left nasal cavity and polypectomy was indicated. During the surgery, a large amount of nasal bleeding took place from the polyps. The private practitioner felt that the polyp-like masses were neoplastic. The patient was

referred to Kurume University Hospital and was admitted on December 14.

On physical examination, multicentric neoplastic lesions were noted in the left nasal cavity: the middle turbinate was dark reddish and appeared to be neoplastic. It was hemorrhagic and its surface was rough. The middle meatus was completely closed with a grayish necrotic mass. Tiny black polyps were observed on the nasal septum and the floor of the nasal cavity. Black irregular tumors were observed also in the left choana and the epipharynx. Eye ball movement was good and visual disturbance was not observed. No signs of cranial nerve involvement were demonstrated and cervical lymphnodes were not palpable. Plain X-ray films showed a cloudiness in the left nasal cavity, maxillary sinus, ethmoid sinus and frontal sinus. Tomograms revealed cloudiness in the same region and bone destruction at the medial wall of the left

orbit, indicating an invasion into the left orbit (Fig. 1). CT scan showed a mass lesion of moderate density in the left nasal cavity, maxillary sinus and ethmoid sinus

(Fig. 2). From tomography and CT scan findings, no invasion into the cranial base was suspected. Chest X-ray showed no evidence of lung metastasis. No abnormal

Fig. 1. X-ray tomograms: Bone destruction of the inner wall of the left orbit (arrow) is observed.

Fig. 2. CT scan before treatments. Tumor shadow (arrow) is noted in the left nasal cavity and maxillary sinus.

laboratory data were detected.

On the basis of the findings described above, malignant melanoma of left nasal cavity was suspected. Biopsy, performed on December 17, 1979, confirmed the diagnosis.

Total maxillectomy and ophthalmectomy followed by postoperative immunotherapy were planned. But the patient strongly rejected to undergo ophthalmectomy. Therefore, we decided to adopt a conservative surgery. On December 20, 1979, partial maxillectomy associated with removal of the nasal septum was performed. The hard palate and contents of the orbit were preserved. The nasal cavity, maxillary sinus and ethmoid sinus were filled with tumor. An invasion into the frontal sinus and epipharynx was observed. After the mechanical removal of the lesions, a cryosurgery was applied for the epipharynx and maxillary cavity.

There were no postoperative complications. For the purpose of immunotherapy, BCG was injected once every two weeks from February 4 to March 26, 1980. Necrotomy was done for two months after the operation. The patient was discharged on February 15, 1980.

Follow-up examinations were indicated

twice a month. But, the patient did not come back between April 1980 and May 1981. On May 6, 1981, the patient visited a private clinic because nasal bleeding occurred. A recurrent tumor was noted there, and he was referred to our hospital on May 12, 1981. There were multiple recurrences on the inferior and lateral walls of the maxillary sinus, and in the left upper palpebrae. Metastatic cervical lymphnodes were not palpable. On CT scan, the major part of the recurrent tumor was located in the maxillary cavity and an invasion into the orbit was demonstrated (Fig. 3). Chest X-ray showed no evidence of lung metastasis.

Total maxillectomy and laser vaporization of the metastatic tumor of the palpebrae were performed on May 25. Ophthalmectomy was recommended but the patient refused.

Following the operation, N-CWS was locally injected and Futraful and Crestine were dosed for the purpose of immunotherapy.

On July 23, a swelling of the left jugulodigastric node was palpated. Radical neck dissection was done on August 10. Jugulodigastric and submandibular nodes were diagnosed as metastasis on histological ex-

Fig. 3. CT scan at recurrence. Tumor shadow (arrow) is noted in the left maxillary sinus and invasion into the orbit (double arrow) is demonstrated.

amination.

On September 4, the patient complained of disturbance of eye ball movement and visual disturbance. He finally accepted to undergo ophthalmectomy, which was performed on September 17. The retrobulbar region in the left orbit was filled with tumor. The upper wall of the orbit was defective and invasion into the dura mater was found. During removal of the neoplastic invasion, liquorrhea was noted. There was an intracranial invasion via the optic nerve. Thus, a perfect removal of the recurrent tumor was not possible. After the operation, the patient developed meningitis in spite of a high dose of antibiotics and died on October 3, 1981, 1 year and 10 months after the initial treatment.

Discussion

Malignant melanomas arise from neural crest. Moore and Martin (1955) reported 429 cases of malignant melanoma arising from head and neck region in all 1577 cases of malignant melanoma. Of these 429 cases, 9 arised from the nasal cavity or the paranasal sinus. In Japan, Ohsumi et al. (1972) reported that the incidence of malignant melanoma in the nasal cavity and paranasal sinuses was 7.4 % of all malignant melanomas. Holdcraft and Gallagher (1969) reported that the incidence of malignant melanoma was 3.6 % in all malignant tumors in the nasal cavity and paranasal sinuses. There is no significant sex difference in the incidence of malignant melanoma arising nasal cavity and paranasal sinuses (Holdcraft and Gallagher, 1969).

Clinical symptoms are of little assistance in prebiopsy diagnosis. Unilateral nasal obstruction or epistaxis is the most frequent initial complaint (Batsakis 1979, Holdcraft and Gallagher 1969, Kanazaki et al. 1971). Pain is usually not present. Inspection of the nasal cavity may disclose a dark red polyp, large obstructing tumor, or cauli-

flower-like tumor (Batsakis 1979). The tumor is frequently pigmented, but tumors without pigment, that is, amelanotic melanoma, are occasionally observed.

Histologic diagnosis is often difficult because there are various types of melanoma cells which resemble to those of some other malignancies, such as poorly differentiated squamous cell carcinoma, transitional cell carcinoma, embryonal rhabdomyosarcoma, malignant schwannoma, and malignant lymphoma (Batsakis, 1979). In paticular, histological diagnosis of amelanotic melanoma is more difficult than that of pigmented melanoma. Our case was pigmented melanoma and diagnosis was not very difficult.

Complete resection with an adequate safety margin is recommended as a initial treatment if possible. Radical neck dissection should be done wheather cervical metastasis is present or not (Conley and Pack, 1963; Moore and Martin 1955; Saito et al. 1977). In our case, a complete surgical removal of the tumor was planned, but the patient rejected to undergo it. Conservative surgeries proved to be unsuccessful to cure the patient. Radiotherapy appeares to have little effect on malignant melanoma. However, Mishima and Cooper (1970) reported a good result of radiotherapy when combined with the use of chlorpromazine. In advanced case, radiotherapy, chemotherapy or immunotherapy are chosen as a palliative therapy (Saito et al. 1977). BCG or N-CWS is used for immunotherapy (Saito et al. 1977). Holdcraft and Gallagher (1969) analyzed 5-year survival rate in 116 cases of melanoma of the nasal cavity and paranasal sinus. 5-year survival rate was 11 %.

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