INTERNAL MEDICINE

□ PICTURES IN CLINICAL MEDICINE □

Nasal T-cell Lymphoma

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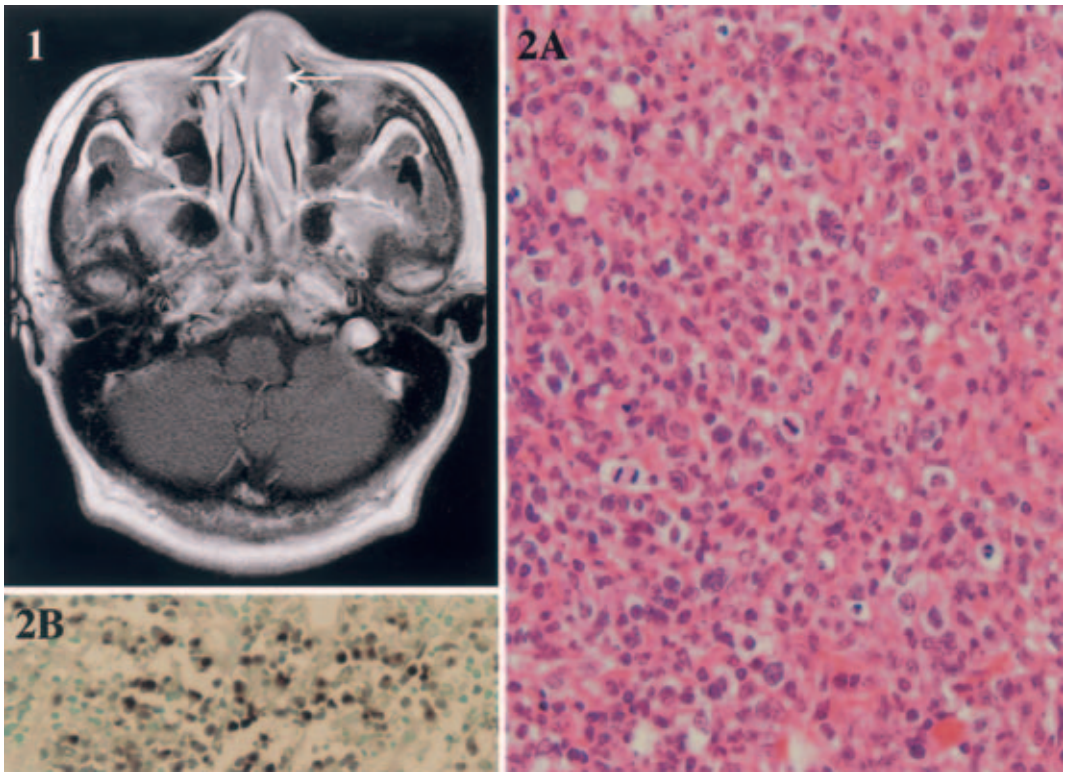

Figure 1. **T1-weighted cranial MRI scan showing a mass lesion in the left nasal cavity (arrows).**
Figure 2. **Biopsy specimen from the nasal tumor. (A) Polymorphic infiltrate composed of large atypical cells with one or two nucleoli, small and medium-sized lymphocytes, and scattered mitotic figures (HE stain). (B) EBER-positive lymphoma cells.**

A 51-year-old woman with a 2-month history of nasal obstruction was found to have a reddish friable mass along the left inferior turbinate (Fig. 1). A biopsy of the nasal lesion revealed T-cell lymphoma, whose immunophenotype was $CD3^+$, $CD4^-$, $CD8^+$, $CD20^-$, $CD45RO^+$, $CD56^-$, TIA-1^+, and granzyme B^+(Fig. 2A). Many of the lymphoma cells were positive for Epstein-Barr virus (EBV)-encoded RNA (EBER) by *in situ* hybridization (Fig. 2B). The disease was Ann Arbor stage IE. She was treated with local radiotherapy (40 Gy). This was followed by 10 courses of chemotherapy (cyclophosphamide, doxorubicin, vincristine, prednisolone). Four months after the last chemotherapy, despite good control of the nasal lesion, she developed left-sided hearing loss and visual impairment and obtundation. The left eye showed decreased motility, pupillary dilatation unresponsive to light, and vitreous opacity suggestive of lymphoma cell infiltration. A cranial MRI scan dem-

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onstrated a left retro-orbital mass consistent with lymphomatous invasion. The cerebrospinal fluid contained 385 mg/dl of protein and 16 /mm^3 of lymphoma cells. A bone marrow clot section showed scattered lymphoma cells. The effect of intrathecal and salvage chemotherapy was short-lived and the patient died 22 months after onset. Most primary lymphomas arising in the nasal cavity are thought to be of natural killer (NK) cell origin with rare cases of T-cell or B-cell lymphoma. Like most nasal NK cell lymphomas that carry EBV, the present nasal cytotoxic T-cell lymphoma also harbored EBV, suggesting its causative role in these neoplasms. Nasal T-cell lymphoma appears to carry a potential risk of spreading to the leptomeninges. Thus, intrathecal chemoprophylaxis should be added to the combined modality of radiotherapy and chemotherapy.