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Pathology Page

Extranodal natural killer/T-cell lymphoma, nasal type

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A 62-year-old man with hypertension and diabetes presented with rhinorrhea, blood-tinged nasal discharge, intermittent fever, and body weight loss of more than 10 kg over 3 months. He had visited local clinics several times and had been treated under the diagnosis of chronic rhinosinusitis. The condition did not improve, and so he came to our clinic for help. Laboratory data were within reference levels. Computed tomography revealed chronic rhinosinusitis. Nasal cavity, sinus, and nasopharyngeal biopsies were performed. Histopathology showed variably sized atypical lymphoid cells with irregular nuclei infiltrate in the stroma, an angiodestructive growth pattern, and necrosis (Fig. 1). Immunohistochemically, these cells were positive for CD3 and CD56 (Fig. 2). Epstein–Barr virus (EBV) *in situ* hybridization was positive in the tumor cells (Fig. 2, inset). Nasal-type natural killer/T (NK/T)-cell lymphoma was diagnosed. EBV serology revealed positive results for EBV viral capsid antigen immunoglobulin G and EBV nuclear antigen immunoglobulin G. The patient received chemotherapy.

Nasal-type NK/T-cell lymphoma is an aggressive lymphoma and is prevalent in Asia, and Central and South America. It occurs most commonly in the upper aerodigestive tract; however, extranasal sites can also be involved. The key diagnostic features are polymorphous lymphoid infiltrate with angioinvasion, demonstration of an NK/T-cell immunophenotype, and EBV in the tumor cells. The prognosis is mainly related to the location and stage of the tumor at diagnosis. An overall poor outcome has been noted in historical series. For patients with localized disease (stage I or II), combined modality therapy with radiation and chemotherapy is

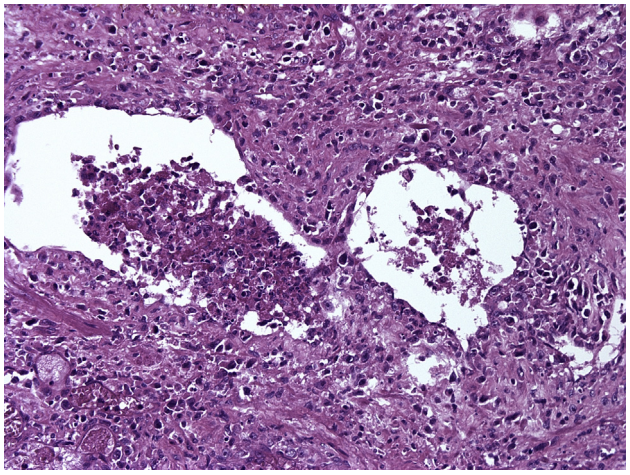

Fig. 1. Histopathology shows atypical lymphoid cell infiltrate with an angiodestructive growth pattern (hematoxylin–eosin stain, 200×).

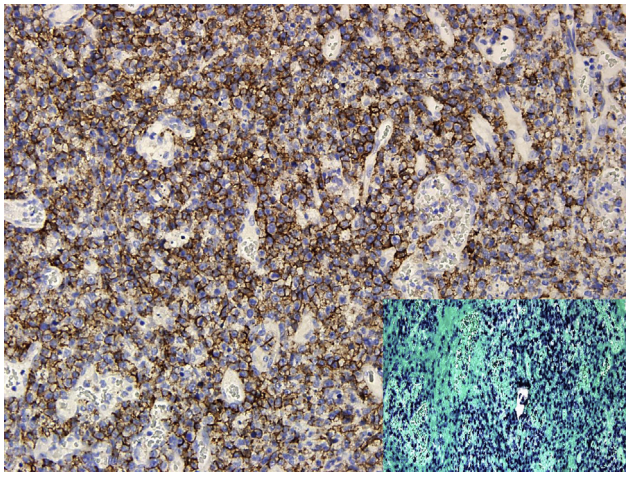

Fig. 2. Immunostaining with CD56. The inset shows Epstein–Barr encoding region *in situ* hybridization.

Conflicts of interest: none.

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recommended. The definitive treatment option for patients with a disseminated disease (stage III or IV) is uncertain, and clinical trials are ongoing.

Further reading

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