Case	(656) Lymphoma presenting with periventricular dissemination
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CASE PRESENTATION

In 5–9% of systemic non-Hodgkin's lymphoma, secondary involvement is seen in the Central Nervous System (CNS), and usually manifests as pachymeningeal or leptomeningeal infiltrates. Parenchymal lesions, when present, typically result from secondary involvement from the leptomeninges. Here, we report a case of CNS lymphoma showing an unusual distribution.

A 92-year-old woman with a history of type B lymphoma that affected the left supraclavicular fossa, which was treated with 3 cycles of R-CHOP chemotherapy with partial response. Presented with a 1month history of cognitive impairment, impaired gait, and headache.

The cerebral basal and contrastenhanced computed tomography (CT) scan was performed, basal image demonstrated hyperdense lesions in the parenchyma around the lateral ventricle, third ventricle, and fourth ventricle (Fig. 1a). contrast-enhanced image demonstrated intense enhancement of lesions around the lateral ventricle, third ventricle and fourth ventricle (Fig 1b, 1c, 1d), accompanied by low-density areas at the periventricular parenchyma suggesting edema.

Cerebrospinal fluid examinations revealed the presence of lymphoma cells, leading to a diagnosis of recurrent lymphoma. Given the age of the patient and the poor short-term prognosis due to cerebral infiltration, a conservative attitude with palliative treatment is decided.

DISCUSSION

We demonstrated periventricular involvement on CT and periventricular dissemination of lymphoma cells on Cerebrospinal fluid study (CSF) in a patient with systemic lymphoma.

The enhancement with contrast medium is usually due to a breakdown of the blood-brain barrier.The choroid plexus consists of many capillaries, loose connective tissue, and choroidal epithelium.

This is one possible reason why the choroid plexus serves as the portal of entry into the CSF forhematogenously disseminated pathogens. The CSF might have carried the lymphoma cells from the lateral ventricle to the third and fourth ventricles, followed by periventricular dissemination.

Our new case supports the idea that lymphoma cells sometimes show choroid plexus infiltration and periventricular dissemination, although choroid plexus involvement was not apparent on CT.

CONCLUSION

Clinicians should consider not only primary CNS lymphoma but also metastatic CNS lymphoma when periventricular lesions are seen on brain images.

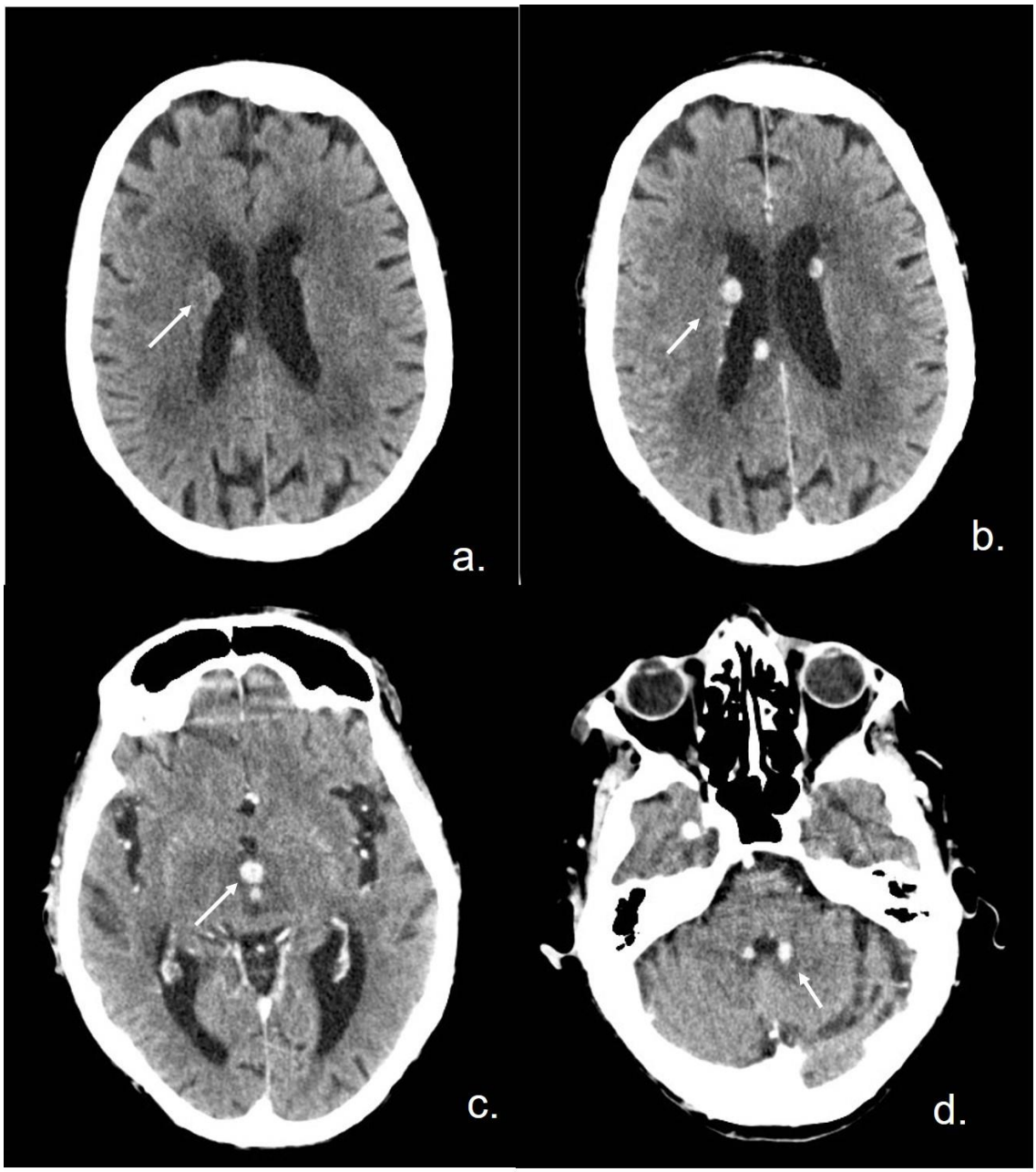

Fig. 1. Axia computed tomography (CT) basal (a) and contrast-enhanced (b,c,d): demonstrating hyperdense lesions in the parenchyma around the lateral ventricle, third ventricle, and fourth ventricle, contrast-enhanced image demonstrated enhancement.

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