

Incidence and radiographic findings of primary central nervous system lymphoma in immunocompetent patients in southern Thailand

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ABSTRACT

Aims and background. In the last two decades there have been conflicting reports concerning a rising incidence of primary central nervous system lymphoma (PCNSL) in immunocompetent patients. This study is being conducted to review the incidence and radiographic findings of PCNSL in a large tertiary care institution in southern Thailand.

Patients. A review was carried out in Songklanagarind University Hospital of the clinical records, CT and MRI images of immunocompetent patients who had histologically proven PCNSL diagnosed between January 1993 and December 2004.

Results. A total of 25 PCNSL patients were diagnosed over a 12-year period. The incidence trend was rising but not to a statistically significant extent. The median age at diagnosis was 57.4 years. Based on the Working Formulation classification, diffuse large cell was the most common subtype. All of the 20 patients with available immunohistochemical results had B-cell lymphomas. The radiographic findings in our series show that the majority of patients had a single lesion (60%) at a supratentorial location (50%). Most of the lesions were well circumscribed. Based on the density of the lesions before administration of a contrast medium, 56% of the lesions on CT images appeared hyperdense. On T1-weighted MRI images, the lesions of our patients were most frequently hypointense (67%) while the T2-weighted images were more commonly hyperintense (60%) and contrast enhancement was found in all lesions. There were 21 patients who received whole brain radiotherapy with doses ranging between 4.2 and 6.0 Gy. The median survival time was 14.4 months.

Conclusions. This study indicates that there has been no significant increase in PCNSL cases over the last 12 years. The recognition of characteristic imaging features of PCNSL may facilitate a stereotactic procedure before steroid administration. In addition, we provide evidence that radiotherapy alone is insufficient in PCNSL.

Key words: incidence, manifestation, CT, MRI, radiation, outcome.

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