Primary central nervous system lymphoma (PCNSL)

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Primary Central Nervous System Lymphoma (PCNLS), an uncommon variant of extranodal non-Hodgkin lymphoma, involves brain, leptomeninges, eyes or spinal cord¹.

A 63-year-old man with two months of cognitive impairment was submitted to brain MRI that revealed an expansive lesion in corpus callosum (Figure 1A and 1B). Biopsy was performed and histopathology showed a diffuse large-B-cell lymphoma (Figure 2). Cytarabine, metotrexate and rituximab² was performed and after two months, patient returns to the emergency with cerebelar ataxia and somnolence. New brain MRI detected disease progression. Brain radiotherapy was indicated with additional boost of radiotherapy to the tumor bed. After 1 month, patient evolved with seizure and a lumbar puncture revealed meningeal dissemination. It was decided palliative care.

![Figure 1. FLAIR sequence (A) showing expansive mass located in the topography of the fornix and splenium of corpus callosum and extending to the lateral ventricles. Presents intense and homogeneous staining in T1 sequence coronal (B).](image-url)
Figure 2. Histologically, the central nervous system parenchyma was diffusely infiltrated by discohesive cells (A, H&E, 100x). At higher power, the neoplastic cells were round and hyperchromatic, with scant cytoplasm and one or two prominent nucleoli (B, H&E, 200x). Immunohistochemically, these cells were strongly positive for CD20 (C, anti-CD20 antibody, 100x) with a high proliferative index (D, Ki-67 antibody, 200x). These findings, together with the clinical and radiological data, supported the diagnosis of primary CNS diffuse large B-cell lymphoma.

References