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FDG-PET hypermetabolism in paraneoplastic cerebellar degeneration

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We report a case of a 62-year-old woman presenting with ataxia and opsoclonus that rapidly progressed over 1 month. Brain MRI was normal. CSF analysis showed 26 lymphocytes/mm^3 without oligoclonal bands. Serum anti-Hu and –Yo antibodies were present. Whole-body 18F-fluorodeoxyglucose (FDG) positron emission tomography (PET) scan showed cerebellar and left ovarian hypermetabolism (Fig. 1). Ovarian biopsy showed an undifferentiated carcinoma. A diagnosis of paraneoplastic cerebellar degeneration (PCD) was made, illustrating that cerebellar FDG-PET hypermetabolism can be observed as an early sign of the diagnosis. The heterogeneous cerebellar hypermetabolism is probably due to hetrogeneous acute inflammation (1). When suspecting PCD, brain FDG-PET may be a useful diagnostic tool, especially when brain MRI is normal.

REFERENCE

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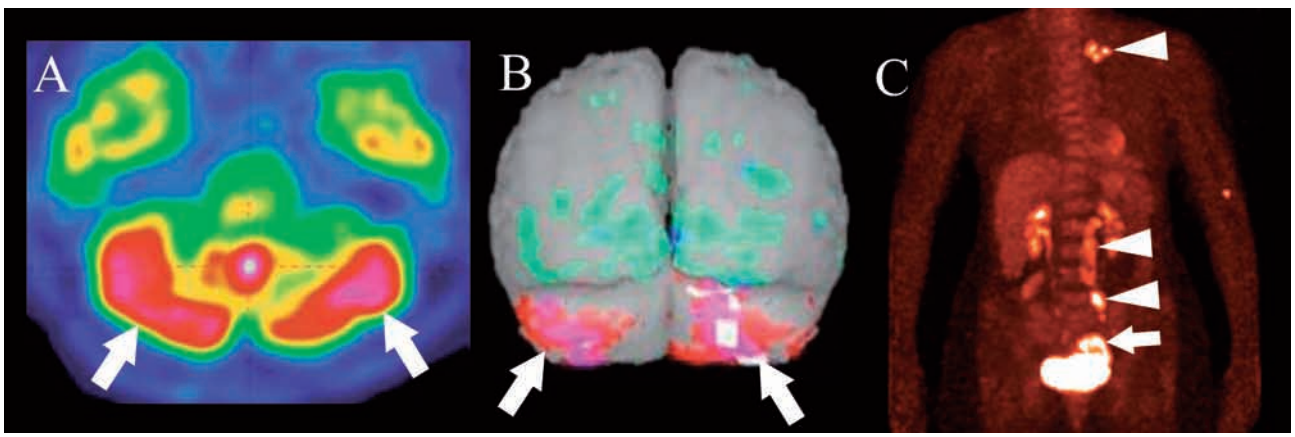

Fig. 1. — Brain FDG-PET (axial view at the level of cerebellum) showing heterogeneous cerebellar hypermetabolism (A), confirmed when using 3D projection (posterior view) of Z scores comparatively to values from 33 age (mean: 65 yrs) - and sex-matched healthy subjects (grey for normal metabolism; hypermetabolism shown in red for > 2SD, pink for > 3SD, and white for > 4SD) (B). Whole body FDG-PET showed left ovarian (arrow) as well as pelvic, abdominal, and subclavian lymph node (arrowheads) hypermetabolism (C).