Teaching NeuroImages: 5-FU–induced acute leukoencephalopathy

A 55-year-old man with carcinoma sigmoid colon (fluorouracil [5-FU]: cumulative dose of 6,600 mg/m²; and oxaliplatinum: 245 mg/m²) presented with encephalopathy and pancerbellar involvement 2 weeks after receiving a third cycle of chemotherapy. Brain MRI showed diffusion restriction in bilateral deep white matter, cerebellar peduncles, and splenium of corpus callosum (figures 1 and 2) suggestive of 5-FU–induced leukoencephalopathy. Symptoms improved after discontinuation of chemotherapy as expected in drug-induced encephalopathy. Diagnosis of PRES (posterior reversible encephalopathy syndrome) seemed less likely because it usually involves posterior subcortical white matter. Diffusion-weighted MRI is a useful modality for early detection of this characteristic encephalopathy.1,2

AUTHOR CONTRIBUTIONS
Sahil Mehta: data collection, writing of manuscript. Gagandeep Singh: revision of manuscript, concept of manuscript. Birinder Singh Paul: data collection, review of literature.

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REFERENCES

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