Hummingbird Sign and Squint Eyes

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In mid-October, 2014, a 64-year-old lady presented with features of aspiration pneumonia. She has been being managed as a patient of “Parkinson-plus” syndrome for the past three years, including nasogastric tube feeding due to dysphagia. History from the carer revealed episodes of fall with postural instability, progressive rigidity of the body as well as dysphagia, and cognitive impairment, but no diplopia. Physical examination revealed a poor Mini Mental State Examination (MMSE) score, axial rigidity, and divergent squint (Image A). Chest findings, radiographs, and laboratory results were consistent with aspiration pneumonia, which was treated with antibiotics and supportive measures. But a diagnostic dilemma between Progressive Supranuclear Palsy (PSP) and late onset Chronic Progressive External Ophthalmoplegia (CPEO) with Parkinsonism remained for her progressive neurological condition. An MRI of brain was done, revealed typical “Hummingbird sign” (Image B) on mid-sagittal section of T1-weighted image, as well as “squint eyes” sign (Image C) on axial section of T2-weighted image. So her diagnosis was established as PSP.

Due to symmetrical nature of ophthalmoplegia, diplopia may not be noticed by the patient in CPEO. Moreover, divergent squint is more common in CPEO, as horizontal gaze is affected more. On the other hand, vertical gaze is typically affected and horizontal gaze is spared, causing down-gaze palsy, in PSP. But, at the later stages, complete ophthalmoplegia may develop in PSP, giving rise to divergent squint, as well as “squint eyes” sign in the MRI.¹

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