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Overlapping MRI findings in progressive supranuclear palsy – corticobasal syndrome

Sobreposição de achados na RM da paralisia supranuclear progressiva – síndrome corticobasal

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A 59 year old woman presented with an atypical parkinsonian syndrome with clinical and neuroimaging features of corticobasal syndrome (CBS) and progressive supranuclear palsy (PSP). CBS manifestations were slurred/scanning speech and asymmetrical right signs: levitation phenomena, pseudo-hemiparetic gait and hypertonia/hyperreflexia. PSP signs were staring face and oculomotor apraxia. Neuroimaging revealed midbrain atrophy with asymmetrical cerebral peduncle (CP), tegmental hiperintensity (Figure 1 to 4) and frontal and midbrain hypometabolism (Figure 5).

Typical Magnetic Resonance Image (MRI) of PSP presents with midbrain atrophy[1] and hiperintensity[2] while CBS displays asymmetrical frontoparietal and CP atrophy[3].

This case has been clinically classified as PSP-CBS[4] but definite diagnosis is through neuropathology.

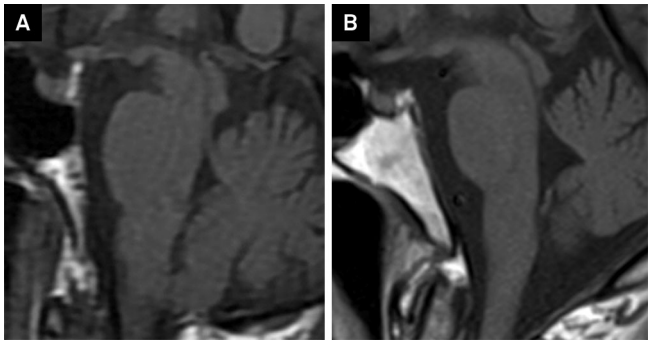

Figure 1. Sagital T1 weighted image at the midline shows reduction of anteroposterior midbrain diameter (1.4 cm – Normal Range (NR)>1.8 cm) and tegmental size reduction (0.95 cm – NR>1.15 cm); Age matched control midbrain.

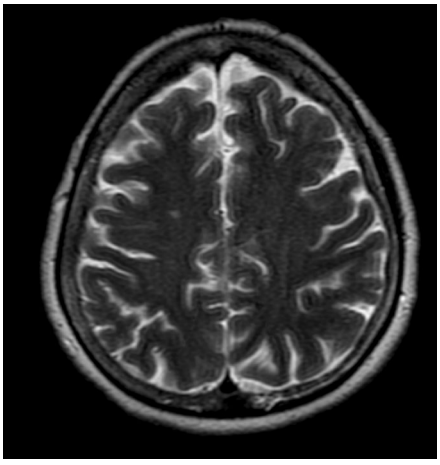

Figure 2. Axial T2 weighted image in high frontoparietal convexity showing no cortical asymmetry.

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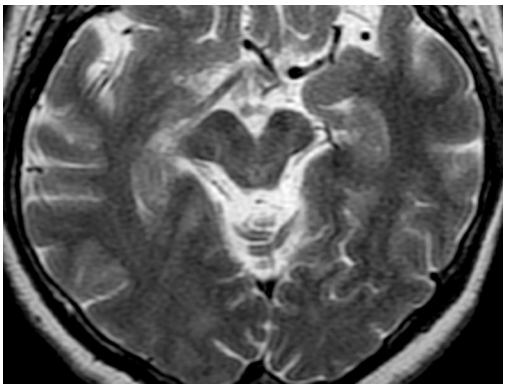

Figure 3. Axial T2 weighted image at midbrain level displays anteroposterior midbrain size reduction (1.2 cm – NR>1.8 cm) and marked cerebral peduncle asymmetry (right CP 1.53 cm and left CP 1.26 cm).

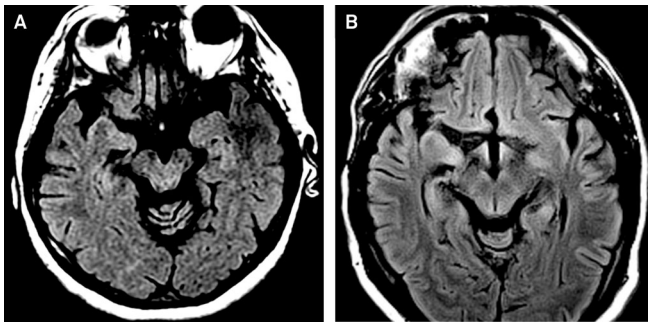

Figure 4. Axial FLAIR image shows increased tegmental signal intensity compared to age matched control.

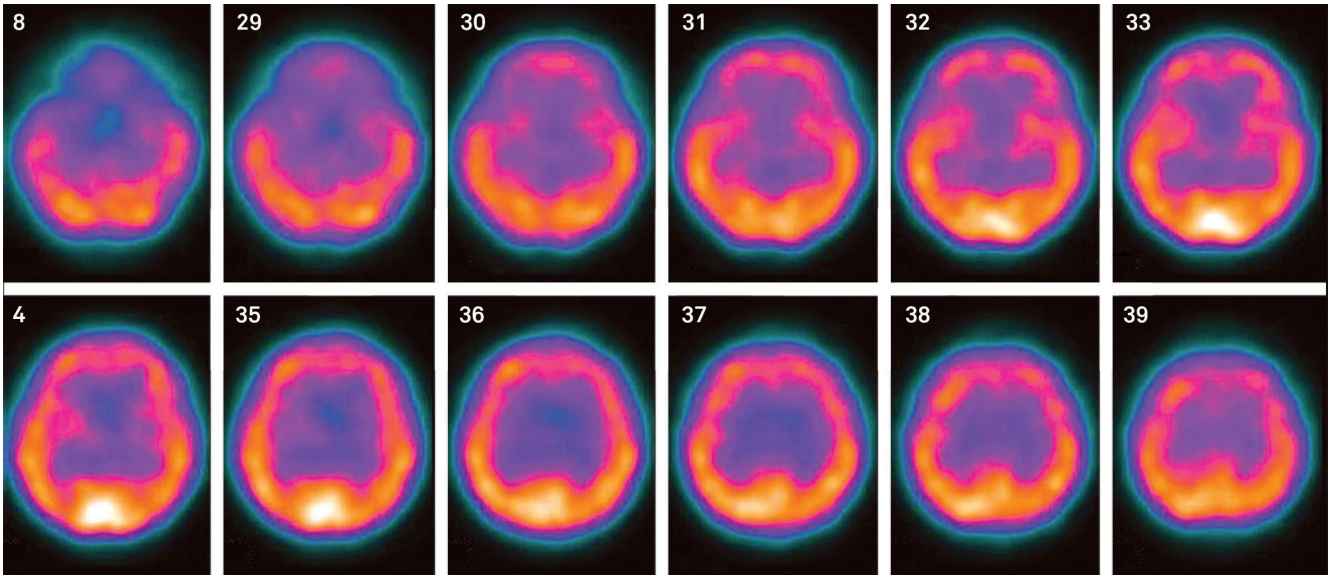

Figure 5. Technetium SPECT showing symmetrical frontal lobe and midbrain hypoperfusion.

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