



“Hot Cross Bun” Sign In Multiple System Atrophy

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Keywords

Neurology; Neuroradiology; Radiology & Imaging; Anatomy

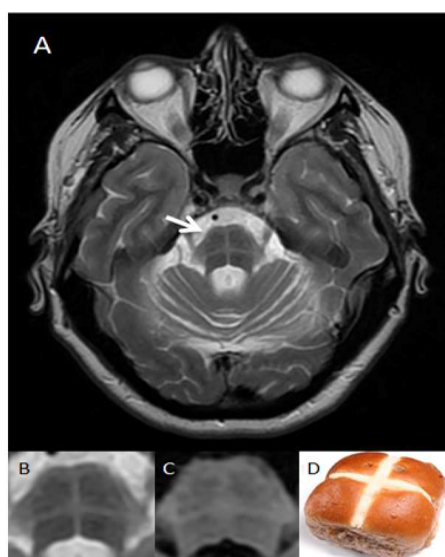


Figure 1: A) T2 axial section of level of pons (arrow indicates hot cross bun sign). 1B) T2 axial section of pons. 1C) T2 Flair axial section of pons. 1D) A hot cross bun.

Clinical Image

A 48-year old woman presented with progressive imbalance and postural dizziness for one year. She had worsening urinary incontinence for the previous four years. Her examination revealed a cerebellar ataxia with superimposed parkinsonism. She had Babinski signs and her extremities were cold and mottled. She was diagnosed with multiple system atrophy (MSA). MRI brain demonstrated a hot cross bun sign (Figure 1).

MSA is a rapidly progressive parkinsonian condition with autonomic dysfunction, demonstrating varying degrees of cerebellar signs and Parkinsonism. It is typically divided into subtypes MSA-P or MSA-C depending on the phenotype [1]. Despite high specificity for MSA, the hot cross bun has been reported in SCA 1, 2, 3, 7 and

8; PML-HIV; cerebrotendinousxanthomatosis; leptomeningeal carcinomatosis; vCJD; vasculitis and stroke [2]. The hot cross bun is a pastry first baked by early Christians before Easter. Its cross symbolizes the crucifixion and its spices represent the spices with which Jesus was embalmed. Queen Elizabeth I viewed their mystical and catholic associations with suspicion and limited their sale. The cruciform hyperintensity in the pons, caused by degeneration of the pontocerebellar tracts resembles the pastry as seen from above. While the diagnosis of MSA is usually a clinical one, MRI findings such as that shown can be helpful in confirming the clinical impression.

References

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