Teaching NeuroImages: All Hemiparesis Are Not Contralateral

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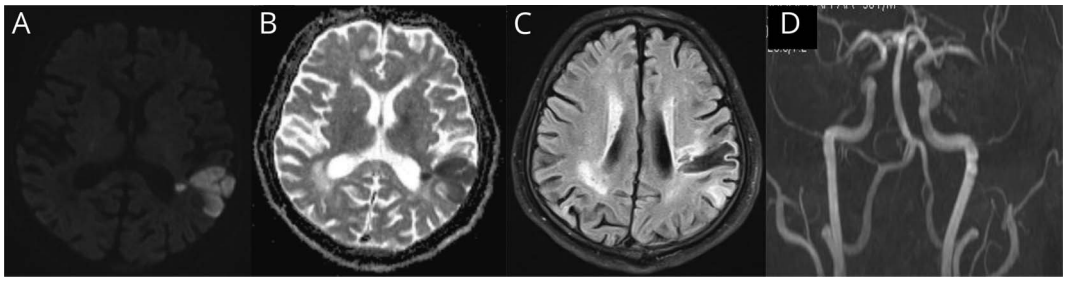
Figure 1 MRI Axial Images Showing Diffusion Restriction and Corresponding ADC Reversal Suggestive of Acute Infarct in Left Inferior Parietal Lobe (A–B); FLAIR Showing Gliotic Scar in Left Parietal Lobe (C); Angiogram Showing Left M2 Stenosis (D)



A 56-year-old hypertensive man presented with left-sided weakness of 2-hour duration. He made complete recovery from right hemiparesis because of left parietal infarct. Examination showed dysarthria and left hemiparesis (NIHSS 8/42). MRI brain showed both left parietal acute infarct and gliosis from old infarct (Figure 1). He was successfully thrombolyzed with intravenous alteplase. Present stroke was diagnosed as ipsilateral hemiparesis, confirmed by diffusion tensor imaging (Figure 2). Ipsilateral hemiparesis, mostly seen with posterior fossa malformations and remote infarctions,[1] results from injury to uncrossed corticospinal tract (CST) in patients of remote brain injury or with no decussation of CST or injury to ipsilateral extrapyramidal motor pathway.[2]

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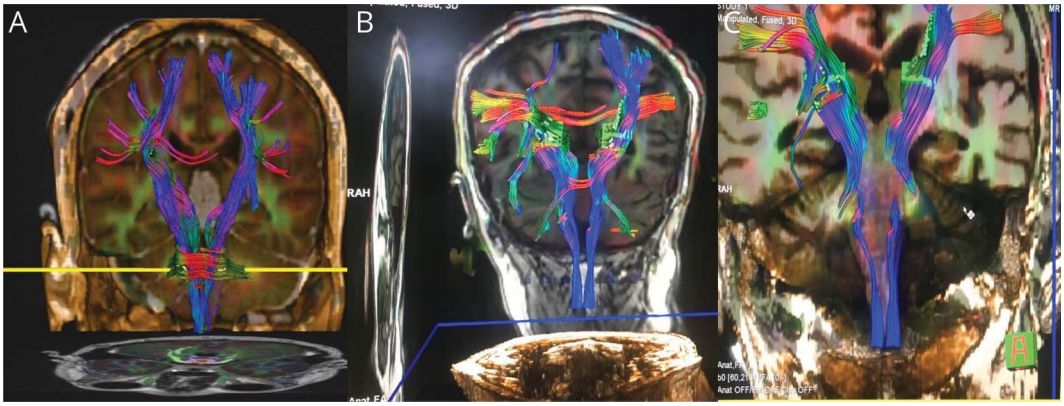
Figure 2 Diffusion Tensor Imaging Showing Normal Decussation of Pyramidal Tracts in Caudal Medulla in Normal Subjects (A); No Decussation in the Given Case (B–C)



Appendix Authors

Name	Location	Contribution
Y. Muralidhar Reddy, DM	Care Hospital, Hyderabad, India	Conceptualized and drafted the manuscript
Subhendu Parida, DM	Care Hospital, Hyderabad, India	Drafted the figures
Jagarlapudi M.K. Murthy, DM, FAAN	Care Hospital, Hyderabad, India	Revision of the manuscript

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