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Posttraumatic cervical nerve root avulsion: Direct and Indirect MR Myelography findings

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**Posttraumatic cervical nerve root avulsion:**

**Direct and Indirect MR Myelography findings**

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An 17-year-old, otherwise healthy man with history of motorcycle accident was evaluated. On physical examination right sided ulnar nerve injury findings were determined. A magnetic resonance imaging (MRI) was obtained with intratechal contrast enhanced MR myelography sequences and a three-dimensional (3D) constructive interference in steady state (CISS) sequence that depicted contrast passes through right C8 nerve root on MR myelography images. At this level nerve root was not visualized on 3D CISS sequence and pseudomeningocele appearance was shown. Additionally axial and sagittal STIR image shows retracted nerve root (Fig.).

3D CISS sequence provides good topographic data that aids to delineate the precise location of cervical nerve root avulsions [1]. As recommended by several researchers, these sequences provide high quality images and their diagnostic accuracy is coequal to that of CT myelography or conventional myelography [2-4]. 3-D sequences like CISS are especially useful due to superior spatial resolution and ability to reconstruct the dataset in any specified plane [4]. In conclusion, 3D CISS sequence is helpful in the evaluation of cervical nerve root avulsions without utilization of intrathecal contrast agents.

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34 **Figure legend**

35 **Fig.** MR myelography images (a,b) show contrast passes through right C8 nerve root (white  
36 arrow). Coronal CISS images (c, d) show pseudomeningocele appearance (black arrows)  
37 without nerve root. Axial (e) and sagittal (f) STIR images show retracted nerve root (open  
38 arrows) and pseudomeningocele.

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