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**Original article:**

**Role of high resolution magnetic resonance imaging in Duane’s retraction syndrome**

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**Abstract**

**Introduction:** Duane’s retraction syndrome is one of the causes of loss of abduction, proper evaluation of this condition is important so as to rule out other causes before starting treatment. In this study we discuss the importance of high resolutionmagnetic resonance imaging in evaluating and diagnosing Duane’s retraction syndrome.

**Materials & Methods**: Thin section gradient echo imaging was performed at level of brainstem on a 1.5 Tesla magnetic resonance imaging machine in seven paediatric patients of clinically diagnosed Duane’s retraction syndrome. The same test was performed on 10 control subjects. Analysis of imaging findings was done focussed on presence or absence of abducens nerve.

**Results**: The abducens nerve on the affected side was absent in eight of eight affected eyes in seven patients. The right and left abducens nerve were well indentified in all 10 control subjects.

**Conclusion:** High resolution magnetic resonance imaging is a useful robust tool for demonstration of absent abducens nerve in Duane’s retraction syndrome. It is also useful for differential diagnosis and conformation of Duane’s retraction syndrome.

**Key words**: Duane’s retraction syndrome, Magnetic resonance imaging, abducens nerve