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Magnetic Resonance Imaging Anatomy of Alar Ligament: A Review of Literature

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Abstract
Alar ligament is one of the most important craniocervical junction (CCJ) ligaments; acting as stabilizer of CCJ and limiting axial rotation. It may be involved in various pathological processes including trauma. Magnetic resonance imaging (MRI) is increasingly being used in cervical spine trauma as a supplement to conventional radiography and computed tomography (CT) to detect a wide range of severe cervical spine injuries. MR depiction of alar ligament requires special sequences despite no known established MR sequence is available. However, the role of MRI in minor or moderate trauma, including whiplash injuries, has long been debated, particularly when neurological dysfunction is absent, because no anatomical disruption other than degenerative disc disease have been reported. In this review, we provide detailed account on the current knowledge of MR visualization of normal alar ligament; outlining the variations in its signal intensity, dimension, shape and orientation. Malaysian Journal of Medicine and Health Sciences (2023) 19(5):389-398.
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Author Keywords
Alar ligament normal anatomy; Alar ligament on 3.0T MRI; Alar ligament signal intensity; Alar ligament variability

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