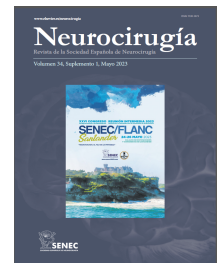




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## P-067 - UTILITY OF DYNAMIC 3D CT IN THE DIAGNOSIS OF ROTATIONAL ATLANTOAXIAL INSTABILITY IN ADULTS

A. Urbaneja<sup>1</sup>, A. Urbaneja<sup>2</sup>, R. Martín<sup>1</sup> and M.A. Arraez<sup>3</sup>

<sup>1</sup>Hospital Universitario Marqués de Valdecilla, Santander, Spain; <sup>2</sup>Clínica Santa Elena, Málaga, Spain; <sup>3</sup>Hospital Regional Universitario Carlos Haya, Málaga, Spain.

### Resumen

**Introduction:** Rotational Atlantoaxial Instability (RAAI) has been classically considered a frequent pathology in children, generally associated with hereditary conditions or inflammatory connective tissue disorders. Its diagnosis in adults is often overlooked as a much less regular diagnosis, typically related to traumatic events.

**Objectives:** To determine the usefulness of 3D reconstructions of dynamic CT in the diagnosis of RAAI in cases of elicited clinical suspicion.

**Methods:** Nine patients with similar clinical presentation were studied and diagnosed via the use of dynamic CT.

**Results:** Within our series of nine patients, five of them presented severe instability, having both articular facets affected and displaced beyond 5 mm (Fielding type III). Conservative management with cervical collar was effective in two of them, whom rejected surgery, and presented improvement of neck pain but without achieving radiological stability. The other three patients underwent surgical treatment consisting on posterior-approach C1-C2 facet joint screw fixation. In four of the patients, the level of instability was lower (Fielding II), and were therefore treated conservatively, with clinical improvement, yet without radiological signs of complete stability.

**Conclusions:** RAAI is a diagnosis which may be bypassed if clinical suspicion is insufficient. Dynamic skull CT with rotations of the head to both sides and both in flexion and extension, followed by posterior 3D reconstruction, is both a cheap and effective imaging tool in the diagnosis and confirmation of atlantoaxial dislocation. It allows, in a very precise manner, to evaluate the alignment of the facet joints and its displacement, as well as providing a crucial stepping stone upon which we can rely upon in order to decide the most appropriate surgical approach for its management.