

Case	(534) Complete atlantooccipital assimilation with basilar invagination and atlantoaxial subluxation as an infrequent cause of repeated syncope. a case report
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CASE PRESENTATION

We report the case of a 73-years-old woman who was taken to Emergency Room due to recurrent syncope.

A head CT was requested in order to rule out intracranial pathology. In head scanner it was detected the fusion between C1 vertebrae and the base of the skull, and ascent of the odontoid process that stenosed the foramen magnum and was in contact with medullar cord. Subsequently the study was completed with CT and MRI of the cervical spine. Sagittal reconstructions revealed increased anterior atlanto-dens interval measuring 7 mm suggestive of atlantoaxial subluxation.

In addition the odontoid process of the axis was located above the Chamberlain and McRae lines what is related in basilar invagination; despite this no signs of myelopathy were detected in MRI

DISCUSSION

The diagnoses was complete atlantooccipital assimilation

Key learning points:

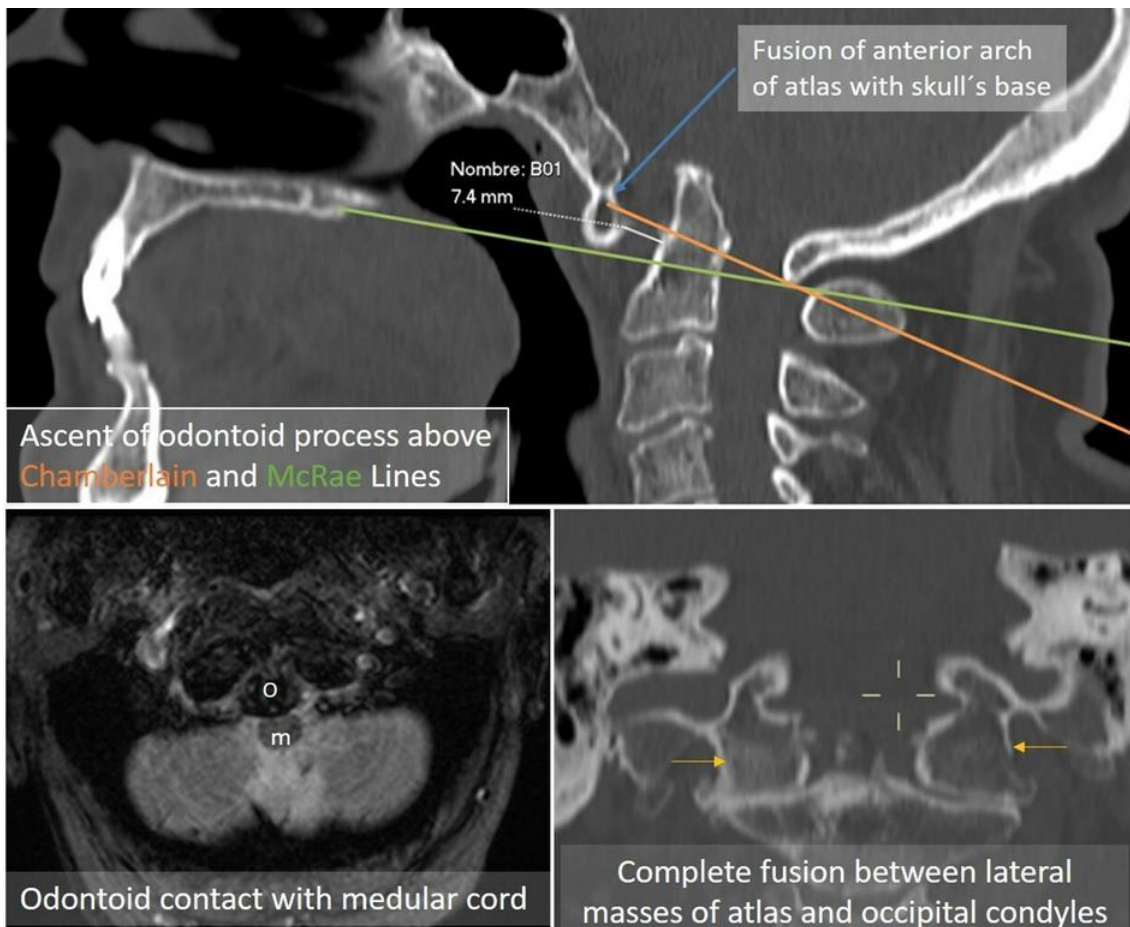
- Congenital fusion between the atlas and the base of the occiput. It can be partial or complete
- May lead to chronic atlantoaxial instability and basilar invagination - The incidence has been reported to be from 0.008 to 3%
- Usually asymptomatic but when symptoms are present they can be serious caused by neural or vascular compression
- Conventional x-ray imaging is usually difficult to interpret, for this reason CT and MRI are mandatory to confirm the diagnose to demonstrate functional stability and detect complications that may require surgical treatment

CONCLUSION

The atlanto-occipital assimilation consists of the congenital fusion of the first cervical vertebra (atlas) to the base of the skull due to a failure of the segmentation process.

Atlas assimilation may include alteration of the atlantooccipital articulation or narrowing of the spinal canal. Most of the abnormalities cause no typical symptom, but some patients show neurological problems with correlate with radiological findings.

The knowledge of this variation may be of importance to orthopedic surgeons, neurosurgeons and radiologist.



BIBLIOGRAPHY

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