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VISUAL CHANGES IN A PATIENT WITH CSF HYPOTENSION SYNDROME

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Abstract: The CSF Hypotension Syndrome (SHL) or spontaneous intracranial hypotension is a rare syndrome, characterized by decreased pressure in the cerebrospinal fluid (CSF) and postural headache. This report presents a male patient with SHL presenting systemic and ophthalmological symptoms, with transient visual blurring, headache and diplopia. The objective of this work is to present an atypical condition, thus contributing to the early diagnosis and treatment of the syndrome.
Keywords: Spontaneous intracranial hypotension; Magnetic resonance imaging; Diplopia; Postural headache.

INTRODUCTION

CSF Hypotension Syndrome (SHL) or spontaneous intracranial hypotension is a rare syndrome, characterized by decreased pressure in the cerebrospinal fluid (CSF), ranging from 50 to 70 mm H2O, and postural headache. The diagnosis is made through the clinical picture, measurement of CSF pressure and radiological study of the brain and spine. The recognition of this pathology has been increasing due to its specific characteristics that allow it to be distinguished from inflammatory meningeal processes or tumors, thus avoiding unnecessary investigations. Visual disturbances (photophobia; diplopia; nystagmus; visual loss) are present in 23% of patients with SHL. Its treatment, measures that increase CSF pressure and volume or seal CSF leaks will depend on the specific origins of intracranial hypotension in each case.

OBJECTIVES

To present a report of a patient with CSF Hypotension Syndrome (HLS), with visual changes, given that SHL is a rare condition that has systemic and ophthalmological repercussions, which can contribute to the early diagnosis of SHL and its respective treatment.

CASE DESCRIPTION

Man, SCF, 56 years old, reported transient visual blurriness and diplopia, symptoms started around 5 months ago. He denied a history of lumbar puncture. Furthermore, he associated the onset of symptoms with pulsatile holocranial headache that worsens in an upright position. No other complaints. There was no ophthalmological, pathological or surgical history. He denies any history of infectious diseases. Upon ophthalmological examination, he had visual acuity in both eyes (AO): 1.0. Biomicroscopy within normal limits and intraocular pressure of 14 mmHg in AO. Retinal mapping without changes. In the versions, the lateral rectus in AO showed decreased tone. Magnetic resonance imaging (MRI) of the skull with emphasis on orbits: Small bilateral frontotemporal subdural hemorrhages apparently chronic.

Diffuse pachymeningeal enhancement over the bilateral cerebral hemispheres (image 1), a finding most commonly related to CSF hypotension. Spine MRI: CSF collection in the first sacral nerve root on the left side. There was no CSF pressure measurement. The patient was quickly referred to a neurologist to suggest treatment for SHL, since when treating SHL, the visual changes found in the case (diplopia and visual blurring) tend to regress completely.

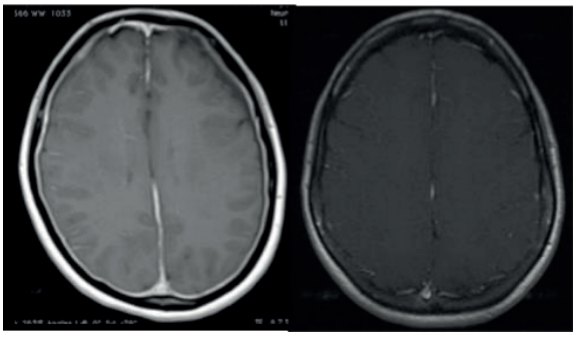

Image 1

CONCLUSION

The mechanism by which CSF hypotension syndrome (HLS) produces visual blurring, transient visual obscurations, and diplopia is unclear. It appears that visual blurring and transient obscuration are related to distortion of the optic chiasm and vascular compression or congestion of the intracranial portion of the second cranial nerve. As for diplopia, it is speculated that it results from paresis of the sixth nerve. The possibility is that the sixth nerve becomes directly compressed or kinked as the pontine cistern is reduced and the brain stem settles against the clivus. These symptoms regress with HLS treatment.

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