Lithium carbonate induced idiopathic intracranial hypertension

Hipertensión intracraneal idiópática asociada a carbonato de litio

Dear Sir,

Lithium carbonate (LC) is a mood-stabilizing drug mainly used for treating bipolar disorder. Papilledema has been described as a side effect of LC, and could exceptionally appear in patients using LC.

We present the case of a 25-year-old patient, diagnosed with bipolar disorder and treated with lithium for 9 months, who visited the ophthalmology practice referring bilateral blurred vision with progressive onset during the past 3 weeks. Visual acuity was of 0.8 in both eyes. Biomicroscopy, intracocular pressure and campimetry were normal. Ocular fundus examination revealed bilateral papilla edema (Fig. 1) and optic coherence tomography (OCT) of the optic nerve exhibited increased fiber layer thickness in both eyes (Fig. 2).

The patient denied experiencing headaches and the examination carried out by the Neurology Department was normal. Her body mass index was normal and she did not exhibit other risk factors. A lumbar puncture was carried out which produced a translucent liquid with an outgoing of 300 mm H2O and normal cytology. After discarding other pressure causes of intracranial hypertension through magnetic resonance, the patient was diagnosed with idiopathic intracranial hypertension.

It was decided to suspend LC treatment and replace it by another mood stabilizer. However, a few days later the patient exhibited a severe psychotic outbreak which required admission to the Psychiatry Unit and reinstatement of the LC treatment. At present, the patient remains psychiatrically stable with persistence of the visual clinic and papilledema. She remains in follow-up with regular checkups including campimetry, ocular fundus and OCT analysis.

Despite the broad experience with the use of LC as mood stabilizer, there are very few reports in the literature describing LC-induced papilledema. Said reports describe adverse effects with lithiumemia in therapeutic range1-3 and in the absence of analytic alterations induced by lithium. Suspending lithium treatment in all patients produced rapid improvement of symptoms and disappearance of papilledema, in some cases leaving residual papillary atrophy1,3 but in most cases worsening the psychiatric disease.1-3

Fig. 1 – Patient ocular fundus photograph, showing bilateral papilla edema with blurred edges.

Fig. 2 – OCT papilla analysis (Cirrus-HD OCT, Carl Zeiss Meditec, USA) showing bilateral thickening of the nervous fiber layer secondary to edema.
Some patients were adequately managed substituting LC by another drug such as carbamazepine or haloperidol,\(^1\) while others who resumed lithium treatment experienced worsening of the papilledema.\(^2\) In some cases, as that of the present patient, the psychiatric disease required reinstatement of lithium treatment, which caused the persistence of visual symptoms and signs.

Benign intracranial hypertension is a possible although exceptional complication of long-term LC treatment,\(^1\)\(^-\)\(^3\) which means that the use of this drug must be questioned when said entity is suspected. Some authors recommend regular fundoscopic checkups of patients in treatment with lithium.\(^1\)

**REFERENCES**


A. Asorey-García \(^\ast\), L. Perucho-González, E. Santos-Bueso, J. García-Feijoo

Unidad de Neurooftalmología, Servicio de Oftalmología, Hospital Clínico San Carlos, Instituto de Investigación Sanitaria del Hospital Clínico San Carlos (IdISSC), Madrid, Spain

\(\ast\) Corresponding author.
E-mail address: Almudena.asorey@gmail.com
(A. Asorey-García).

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**Intravitreal inyections: What do patients prefer?**

**Analysis of patient’s satisfaction and preferences about where to perform intravitreal injection.**

**Author’s reply\(^\ddagger\)**

**Inyecciones intravítreas: ¿y qué prefieren los pacientes? Análisis de satisfacción y preferencias sobre la ubicación de la realización de inyección intravítrea. Respuesta de los autores**

**Dear Sir,**

First and foremost, I would like to thank Sai Tin et al.\(^1\) for the comments on the «Intravitreal inyections: What do patients prefer?» article.

As the article mentions, I would like to point out that the main object of the survey was not to obtain data on safety even though when injected patients were examined, possible adverse effects were also analyzed.

Obviously, there is growing concern on the safety of intravitreal injections mainly due to the increased number being carried out all over the world.

Studies indicate an incidence of endophthalmitis between 0.019 and 1.6%\(^2\) according to different authors. Despite these data, which are better than those of other ophthalmological surgery procedures such as phacoemulsification, improvements are being introduced in protocols in an endeavor to reduce these percentages.

The American Academy of Ophthalmology (AAO) does not indicate a preferred environment for carrying out intravitreal injections. Most are done in the examination room or in an area prepared beforehand for injections. In Europe, protocols are different between countries. For example, in Switzerland it is recommended to place them in a surgery room.\(^3\) In Spain, the guide of the Retina and Vitreous Society of Spain (SERV) does not specifically recommend an environment for carrying out the procedure (consulting room, nurse room or surgery) «provided that the place is comfortable for the patient as well as for the ophthalmologist and allows the execution of a sterile technique».\(^4\)

The only practice that has been proven to diminish the incidence of endophthalmitis is the use of iodine povidone before

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