

We suspect that excessive consumption of this extract caused secondary AHT, which predisposed our patient to sequential bilateral atypical NAION.

Our case is particularly interesting due to the unusual association between pseudo-HAP and atypical NAION. We should underscore the importance of detailed history-taking in cases of atypical NAION, given its association with a broad range of drugs, conditions, and clinical situations.

References

1. Rebolledo G, Muñoz-Negrete FJ. Edema de papila — Papila elevada. In: *Protocolos en neurooftalmología*. Madrid: Sociedad Española de oftalmología; 2010. p. 21–75.
2. Lee AG, Lin DJ, Kaufman M, Golnik KC, Vaphiades MS, Eggenberger E. Atypical features prompting neuroimaging in acute optic neuropathy in adults. *Can J Ophthalmol*. 2000;35:325–30.
3. Cunningham AV, Smith KH. Anterior ischemic optic neuropathy associated with Viagra. *J Neuroophthalmol*. 2001;21:22–5.
4. Fivgas GD, Newman NJ. Anterior ischemic optic neuropathy following the use of a nasal decongestant. *Am J Ophthalmol*. 1999;127:104–6.
5. Rucker JC, Bioussé V, Newman NJ. Ischemic optic neuropathies. *Curr Opin Neurol*. 2004;17:27–35.
6. Van Uum SH. Liquorice and hypertension. *Neth J Med*. 2005;63:119–20.
7. Spinks EA, Fenwick GR. The determination of glycyrrhizin in selected UK liquorice products. *Food Addit Contam*. 1990;7:769–78.
8. Penninkilampi R, Eslick E, Eslick G. The association between consistent licorice ingestion, hypertension and hypokalaemia: a systematic review and meta-analysis. *J Hum Hypertens*. 2017;31:699–707.

C. Oribio-Quinto*, I. Collado-Vincueria, E. Pineda-Garrido, E. Santos-Bueso

Unidad de Neurooftalmología, Servicio de Oftalmología, Hospital Clínico San Carlos, Madrid, Spain

* Corresponding author.

E-mail address: carlosoribio@gmail.com (C. Oribio-Quinto).

<https://doi.org/10.1016/j.nrleng.2020.08.018>
2173-5808/

© 2020 Sociedad Española de Neurología. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Myasthenia gravis and systemic lupus erythematosus: presentation of 5 cases and PubMed review[☆]



Asociación de miastenia gravis y lupus eritematoso sistémico: aportación de 5 casos y revisión de PubMed

Dear Editor:

The contribution of Alba Isasi et al.,¹ who present 3 patients with myasthenia gravis (MG) who developed systemic lupus erythematosus (SLE) after thymectomy, is of great importance given the rareness of this association and the scarcity of research into the causes and triggers of lupus disorder.²

We searched on the PubMed database using the keywords SLE and MG, and obtained the following interesting results: the search returned 586 articles, although 483 do not report cases. The first article dates from 1961, although the first case of association of both conditions was published in 1954.³ Of the 103 articles describing patients, 76 report a single case. We found a total of 180 cases from 32 different countries, mainly in Europe (54 articles/126 cases) and Asia (22 articles/24 cases). Prevalence of SLE in patients with MG

was 1.12%-8.4% and prevalence of MG in patients with SLE was 1.3%. MG manifested first in more than twice as many cases; both conditions rarely presented simultaneously. Both adults and children were affected, with the great majority being women. Patients with MG and SLE were younger than those with MG only; they also showed higher prevalence of anti-acetylcholine receptor antibodies, received more immunosuppressants, more frequently underwent thymectomy, and presented a higher rate of remission.

The possible association between SLE and thymectomy in patients with MG is controversial.^{4,5} We identified 41 reported cases of SLE onset after undergoing thymectomy to treat MG, with SLE manifesting between 3 months and 40 years after surgery (mean, 10 years). Some studies suggest that thymectomy may play a role in the subsequent development of SLE, due to a defect in lymphocyte suppressive activity caused by decreased thymic hormonal activity, although other authors have been unable to confirm this in experimental studies. The thymectomies performed in some patients with MG and SLE caused no significant changes in disease activity. We should highlight 2 epidemiological studies from Norway and Sweden, which identified 8 patients with SLE among 48 with MG (8.4%) and 23 with SLE among 2045 with MG (1.12%), respectively; no association could be demonstrated with thymectomy.^{6,7} Furthermore, Fang et al.⁷ indicate that the 3 diseases most frequently associated with MG (polymyositis/dermatomyositis, SLE, and Addison disease) are all regulated by the HLA-B8-DR3 haplotype. In a recent meta-analysis, Chen et al.⁸ mention the association of the HLA-DRB1*1602 allele with different autoimmune diseases, including SLE and MG. In our review, most cases of SLE associated with MG were not related to thymectomy.

[☆] Please cite this article as: Jiménez-Alonso J, Navarrete-Navarrete N, Jiménez-Jáimez E, Jáimez L. Asociación de miastenia gravis y lupus eritematoso sistémico: aportación de 5 casos y revisión de PubMed. *Neurología*. 2021;36:556–557.

Table 1 Clinical data of 5 patients diagnosed with systemic lupus erythematosus and myasthenia gravis.

Patient	Age at diagnosis of SLE	Age at diagnosis of MG	Thymectomy	HQC	Anti-AChR ab	Type of MG
1	31 years	23 years	24 years	Well-tolerated	+	Generalised
2	28 years	45 years	No	Well-tolerated	+	Generalised
3	17 years	25 years	No	Well-tolerated	—	Ocular
4	55 years	65 years	No	Suspension due to OAE/M	—	Ocular
5	45 years	54 years	No	Well-tolerated	+	Ocular

Anti-AChR ab: anti-acetylcholine receptor antibodies; HCQ: hydroxychloroquine; MG: myasthenia gravis; OAE/M: ocular adverse effects/maculopathy; SLE: systemic lupus erythematosus.

Another relevant aspect related to the MG/SLE association is hydroxychloroquine, an essential drug for patients with SLE, which may cause neuromuscular involvement/proximal muscular weakness, myasthenic syndromes, or even trigger MG relapses. Therefore, its use in patients with MG has been questioned. In our review, few articles mention use of the drug, and we found that only 10 patients did not report adverse effects, 8 patients reported doubtful adverse effects, and 4 patients poorly tolerated the drug; in general, hydroxychloroquine may be administered in the majority of cases.^{9,10}

We present the cases of 5 women with SLE and MG, aged 33, 50, 62, 72, and 77 years (Table 1). In 4 patients, SLE manifested before MG, and the remaining patient underwent thymectomy 7 years before onset of SLE. All patients received hydroxychloroquine and, although patient number 4 presented maculopathy, leading to treatment suspension, none presented MG exacerbation. All 5 patients presented mild-moderate SLE, with general, cutaneous, and articular symptoms, and laboratory and autoimmunity data indicating diagnosis of SLE; none presented involvement of vital organs, with the exception of patient 3, who died due to severe cardiac and kidney disease.

We consider the contribution of Alba Isasi et al.¹ to be relevant, although we believe that further well-designed, multicentre studies with sufficiently large samples and long follow-up periods are needed to determine whether thymectomy may trigger SLE in some patients with MG or whether the association between the 2 autoimmune processes is caused by other immunological/genetic causes.

References

- Alba Isasi MT, López Sánchez J, Vázquez Lorenzo J, Fuentes Rumi ML. Systemic lupus erythematosus in thymectomized patients with myasthenia gravis: reports of three clinical cases. *Neurología*. 2020;36:82–3, <http://dx.doi.org/10.1016/j.nrl.2019.12.001>. S0213-4853;30008-6.
- Jiménez-Alonso J, Jaimez L. Systemic lupus erythematosus in PubMed: a review of the articles published in 2018. *Clin Exp Rheumatol*. 2020;38:804.
- Harvey AM, Shulman LE, Tumulty PA, Conley CL, Schoenrich EH. Systemic lupus erythematosus: review of the literature and clinical analysis of 138 cases. *Medicine (Baltimore)*. 1954;33:291–437.
- Vaiopoulos G, Sfrikakis PP, Kapsimali V, Boki K, Panayiotidis P, Aesopos A, et al. The association of systemic lupus erythematosus and myasthenia gravis. *Postgrad Med J*. 1994;70:741–5.
- Minchenberg SB, Chaparala G, Oaks Z, Banki K, Perl A. Systemic lupus erythematosus-myasthenia gravis overlap syndrome: Presentation and treatment depend on prior thymectomy. *Clin Immunol*. 2018;194:100–4.
- Thorlacius S, Aarli JA, Riise T, Matre R, Johnsen HJ. Associated disorders in myasthenia gravis: autoimmune diseases and their relation to thymectomy. *Acta Neurol Scand*. 1989;80:290–5.
- Fang F, Sveinsson O, Thormar G, Granqvist M, Askling J, Lundberg IE, et al. The autoimmune spectrum of myasthenia gravis: a Swedish population-based study. *J Intern Med*. 2015;277:594–604.
- Chen Y, Li S, Huang R, Zhang Z, Petersen F, Zheng J, et al. Comprehensive meta-analysis reveals an association of the HLA-DRB1*1602 allele with autoimmune diseases mediated predominantly by autoantibodies. *Autoimmun Rev*. 2020;19:102532.
- Jallouli M, Saadoun D, Eymard B, Leroux G, Haroche J, Le Thi Huong D, et al. The association of systemic lupus erythematosus and myasthenia gravis: a series of 17 cases, with a special focus on hydroxychloroquine use and a review of the literature. *J Neurol*. 2012;259:1290–7.
- Fernandez-Sanz A, Bucar-Barjud M, Ruiz-Serrano J, Saez-Comet L, Capablo-Liesa JL. Association between myasthenia gravis and systemic lupus erythematosus: is it safe to use hydroxychloroquine? *Rev Neurol*. 2017;64:431–2.

J. Jiménez-Alonso^{a,*}, N. Navarrete-Navarrete^b,
E. Jiménez-Jáimez^c, L. Jaimez^d

^a Departamento de Medicina, Facultad de Medicina, Universidad de Granada, Granada, Spain

^b Unidad de Enfermedades autoinmunes sistémicas, Servicio de Medicina Interna, Hospital Universitario Virgen de las Nieves, Granada, Spain

^c Departamento de Medicina del Trabajo, Cualtis SLU, Granada, Spain

^d Servicio de Laboratorio e Inmunología, Laboratorio de Autoinmunidad, Hospital Universitario Virgen de las Nieves, Granada, Spain

* Corresponding author.

E-mail address: jjimenezalonso@gmail.com (J. Jiménez-Alonso).

15 April 2020

<https://doi.org/10.1016/j.nrleng.2020.08.017>
2173-5808/

© 2020 Sociedad Española de Neurología. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).