Short communication

C-ANCA positive necrotising scleritis and multiple sclerosis compatible with ocular Wegener: Treatment with rituximab

V. Aldasoro-Cáceres a,∗, I. Aldasoro-Cáceres b, J.V. Pérez-Moreiras c, M. Murié-Fernández a, R. Ibáñez-Bosch d

a Sección de Reumatología, Clínica Universidad de Navarra, Pamplona, Spain
b Servicio de Oftalmología, Hospital Universitario de Cruces, Bilbao, Bizkaia, Spain
c Servicio de Neurología, Clínica Oftalmológica Moreiras, A Coruña, Spain
d Unidad de Reumatología, Complejo Hospitalario de Navarra, Pamplona, Spain

ARTICLE INFO

Article history:
Received 2 June 2011
Accepted 14 June 2012
Available online 20 March 2014

Keywords:
Systemic vasculitis
Wegener's granulomatosis
Multiple sclerosis
Rituximab
Orbital pseudotumour

ABSTRACT

Case report: A patient diagnosed with necrotizing scleritis, c-ANCA+, an orbital pseudotumour, and possible multiple sclerosis in 2003 was treated with oral cyclophosphamide and steroids with partial response. Between 2005 and 2010 she suffered self-limited episodes. In 2010 a first scleral transplant was performed with poor outcome. She was treated with rituximab, and a second graft was performed with good results. At 12 months there was no change in magnetic resonance and the second graft healed.

Discussion: Wegener’s disease with limited involvement of the orbit and/or the eye is a rare condition. The histopathology, blood analysis, symptoms and good response to treatment are the key to its diagnosis.

© 2011 Sociedad Española de Oftalmología. Published by Elsevier España, S.L. All rights reserved.

∗ Corresponding author.
E-mail address: vicentealdasoro@hotmail.com (V. Aldasoro-Cáceres).

Escleritis necrotizante c-ANCA positivo y esclerosis múltiple compatible con Wegener ocular: tratamiento con rituximab

RESUMEN

Caso clínico: Paciente diagnosticada de escleritis necrotizante c-ANCA+, seudotumor orbitario y posible esclerosis múltiple; en 2003 realizó tratamiento con ciclofosfamida oral y esteroides con respuesta parcial. Entre 2005-2010 sufrió episodios oculares autolimitados. En 2010 se realizó un primer trasplante escleral, con mala evolución. Se inició tratamiento con rituximab y se realizó segundo injerto con buena evolución. A los 12 meses no se observaron cambios en resonancia magnética y el segundo injerto cicatrizó.

Discusión: La enfermedad de Wegener con afectación limitada a la órbita y/o el ojo es una entidad poco frecuente. La anatomía patológica, analítica de sangre, clínica y buena respuesta al tratamiento son clave para su diagnóstico.

© 2011 Sociedad Española de Oftalmología. Publicado por Elsevier España, S.L. Todos los derechos reservados.

Introduction

Wegener’s granulomatosis is a small/medium-sized vessel systemic vasculitis characterized by the formation of granulomas in the involved organs. Two or more criteria of those established by the American Rheumatology School in 1990 are required for diagnosis.

Wegener’s disease with orbital and/or ocular involvement without reference to systemic disease is an uncommon entity. This paper presents a case compatible with orbital and ocular Wegener’s disease associated to multiple sclerosis (MS).

Clinical case

A female, 37 years of age, without relevant personal history, in 2003, began to experience photophobia, ptosis and ocular pain in the right eye. Treatment with topical prednisone was established, which produced partial improvement. However, due to worsening clinic she was admitted for study (Fig. 1).

After supplementary tests, the patient was diagnosed with c-ANCA positive necrotizing scleritis and 1cm mass adjacent to the internal rectus of the right eye, compatible with orbital pseudotumor. Scleral conjunctival biopsy was reported as inflammatory infiltrate compatible with orbital pseudotumor compatible with vasculitis, without associated granulomas. The sample was sent to the Vancouver General Hospital for a second opinion, with the findings being confirmed (Fig. 2).

Cranial magnetic resonance (MR) identified areas suggesting vasculitis and/or demyelizing process. A lumbar puncture was performed which did not reveal oligoclonal strips and ocular evoked potentials compatible with MS. The remaining tests did not reveal systemic involvement.

The patient was administered therapy with topical and systemic steroids (1 mg/kg/day) and oral cyclophosphamide (up to 150 mg/day) with subsequent disappearance of the orbit mass and good clinical response, which led to treatment termination in 2005 (Fig. 3).

Between 2005 and 2009 the patient reported multiple episodes of pain, conjunctival hyperemia and acute phase reactant elevation which were partially controlled with oral

Fig. 1 – Initial patient appearance: slight protrusion of mass in the internal right eye orbital edge, conjunctival and palpebral hyperemia, ptosis and downward ocular globe displacement.

Fig. 2 – Sclero-conjunctival biopsy in hematoxylin-eosin: lymph-plasmocytary perivascular infiltrate, with some eosinophiles and minimum amount of fibrin.
cyclophosphamide and steroids. In 2009 for the first time the patient exhibited a small area of scleral necrosis which increased with time despite treatment with steroids and cyclophosphamide. A scleral graft was inserted but it failed to heal (Fig. 4).

In July 2010 the patient was examined in our hospital for the first time. Due to the progressive ocular and analytical worsening of her condition, supplementary tests were carried out once again to discard subclinical systemic disease. Said tests did not reveal data confirming said suspicion. In addition, a brain and spinal chord MR was taken, revealing progression of the demyelinizing injuries (Fig. 5), as well as a lumbar puncture showing oligoclonal strips and IgG/albumin quotient between cerebrospinal fluid (CSF), serum was 0.7 mg/dl, and complete evoked potentials compatible with MS.4

It was decided to initiate treatment with rituximab at a dose of 375 mg/m² per week during 4 weeks with good tolerance. Four months after beginning the treatment a new scleral graft was performed. At month 6 a new cycle with rituximab was repeated because the patient exhibited ocular clinic and increased acute phase reactants.

Twelve months after beginning the treatment the c-ANCA turned negative, the lesions in the white substance did not evolve and the patient did not report any episode suggesting neurological focal deficit. The scleral graft healed adequately and the patient did not exhibit new ocular involvement episodes.

**Discussion**

A presentation of Wegener’s disease restricted to the orbit is an uncommon entity.2,3 In the patient of this case, even though it is true that the diagnostic criteria are not fulfilled,1 both the clinic and radiological, analytical and pathological findings as well as the positive response to treatment led to the conclusion that the condition of the patient is compatible with ocular Wegener's disease.2,3

On the other hand, the presence of oligoclonal strips with coefficient between CSF and serum above 0.4 mg/dl, multimode and bilateral alteration in complete evoked potentials and brain and spinal chord MR findings (even though the patient did not exhibit neurological episodes, possibly to the high dosage of administered corticoids), lead to a patient with probable MS despite the absence of an outbreak.

Historically, cyclophosphamide has been the treatment of choice for vasculitis. Recent studies have compared the efficiency of rituximab vis-à-vis cyclophosphamide in patients with ANCA-positive vasculititis, without observing inferiority and with good tolerance and safety.3,5

At a dose of 375 mg/m² per week during 4 weeks, rituximab has demonstrated to provide a safe and efficient therapy for treating this case compatible with ocular Wegener’s disease with concomitant MS, at least during 12 months.
Fig. 5 – (A) Corona FLAIR with injuries in periventricular white substance. (B) Axial FLAIR with lesions in periventricular white substance. (C) Sagittal T2 with cervical lesion at C2–C3. (D) Axial section of the lesion, view at the level of C2–C3.

Conflict of interests

No conflict of interests has been declared by the authors.

REFERENCES


