RF, ANA, ANCA, antiDNA, antiMBG, IgA ATT and precipitins to cow's milk. Studies of pulmonary function showed a restrictive pattern: forced spirometry: FEV1 79%, FVC 80%, FEV1/FVC 90%, negative bronchodilation and plethysmography: TLC 67%, FVC 67%, RV 21%, with moderate decrease of CO diffusion capacity. No macroscopic alterations were seen on fibrobronchoscopy; on bronchoalveolar lavage a bloody serous fluid was obtained with abundant red blood cells (49%) and haemosiderophages (41%). Cultures for moulds, bacteria and mycobacterium were negative.

The patient was diagnosed with IPH in the absence of any findings to suggest other respiratory conditions which could be causing the alveolar bleeding. Treatment was initiated with oral prednisone (2 mg/kg/day), inhaled budesonide (400 μg/day), hydroxychloroquine (7 mg/kg/day), ferrous sulphate and inhaled salbutamol as needed. After 2 months oral prednisone is decreased, and the patient presented two episodes of slight haemoptisis; however, he reports better resistance to physical stress and the anaemia disappears. At 14 months, the patient has no symptoms and is receiving 10 mg of prednisone every 48 hours, hydroxychloroquine is decreased and is eventually suspended 2 years after it was begun; 10 months after prednisone is discontinued. At present, 3 years after diagnosis, the patient is on inhaled budesonide (400 μg/day) and has not had any new exacerbations, only presenting dyspnoea on exertion. All analytical, radiological and lung function tests are normal and the patient has not suffered any adverse effects due to medication.

It is difficult to give recommendations for IPH treatment. The series of cases published have a limited number of patients and their response to drugs is variable. Systemic steroids as first line of treatment in acute cases seem to control bleeding, improve X-ray images and decrease morbimortality.[1,3-5] Long term benefits are less evident; although their prolonged use is related to greater survival, a decrease in exacerbations and less lung fibrosis.[1-4,6] The adverse effects due to prolonged use of systemic corticosteroids in infancy and the risk of recurrences when dosage is decreased make it necessary to find alternative treatments.[3,5,6]

The effectiveness of hydroxichloroquine has been documented, both during the acute phase as during maintenance after corticosteroid failure.[2-5] Furthermore, there is no evidence to indicate what is the appropriate dose, when to begin and when to stop treatment. Cyclophosphamide has also been successfully used during the acute phase and during maintenance, especially in threatening situations that have not responded to corticosteroid treatment.[2] There are also publications reporting the benefits of azathioprin to control symptoms in the long term and so reduce the dose of corticosteroids.[2,3,5] High doses of inhaled corticosteroids have also been used to decrease the dosage of systemic corticosteroids, although neither is there sufficient evidence to support their general use.[1,2,5,6]

To conclude, we wish to point out that a prolonged treatment with a combination of inhaled and systemic corticosteroids and hydroxichloroquine achieved an appropriate response in the case we have presented. The appearance of new episodes of haemoptisis when prednisone was first decreased prolonged the duration of treatment. The good response seen in our patient, although this was an isolated case, is an indication that it is possible to consider using this combined therapy for IPH.

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None.

Conflict of Interest

The authors affirm that they have no conflict of interest.

Appendix 1

Chest CAT: Multiple bilateral diffuse infiltrates, some of pseudonodular morphology, with ground glass areas and small sized hilar adenopathies.

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Secondary Amyloidosis with Renal Involvement in an Adult Patient with Cystic Fibrosis

Amiloidosis secundaria con afectación renal en paciente adulto con fibrosis quística

To the Editor:

Cystic fibrosis (CF) is a genetic disease from which survival has been increasing steadily over recent decades.[1] Other complications associated with CF have also been increasing, such as secondary amyloidosis, which is associated with chronic inflammatory processes. Amyloidosis is a systemic disease characterised by the extracellular deposition of fibrillar proteins. Secondary AA amyloidosis consists of fibrils of protein A, an acute phase reactant produced by hepatocytes. Renal involvement is common in this condition. Secondary AA amyloidosis is a recognised complication of CF (mainly in patients with a long evolution of the disease and poor disease control), but very rare. Its incidence is not known in CF and it is associated with poor prognosis. In most cases it presents with proteinuria, thryomegaly, and/or hepatosplenomegaly.[2] Furthermore, amyloidosis with renal involvement is frequent and evolves into kidney failure in a relatively short time (months or years), which is associated with a poor prognosis.[3]

We report the case of a 32 year old man, diagnosed with CF late when he was 20 years old (he consulted the doctors after his brother was diagnosed) and with: DF508/R334W genotype, bronchiectasis with chronic bronchial infection by *Pseudomonas aeruginosa*; pancreatic insufficiency; obstructive azoospermia; moderate malnutrition. A smoker of 15 packs/ year, occasional drug addict through inhalation, and social alcoholism. Stable up to 27 years old, despite irregular compliance with treatment and monitoring in the *Unidad de FQ de Adultos de Málaga (*Adult CF unit, Malaga), with 1-2 mild respiratory exacerbations per year. At that age, he was diagnosed with adjustment disorder with anxiety and depression and suicidal ideas, and from then on suffered progressive deterioration and 7 hospital admissions for severe exacerbations and persistent poor adherence to treatment. Depression-anxiety in chronic patients is related to the acquisition of poor health habits and a worse prognosis, and therefore diagnosis is crucial. The patient was admitted to our unit (months after abandoning follow-up) due to another episode of respiratory infection and with a clinical picture of periorbital and lower limb oedema which had developed over several months with normal kidney function. The most important results were proteinuria of 7g/day, microalbuminuria 1172 mg/l, abdominal and thyroid ultrasound without alterations, chest HRCT with varicose bronchiectasis in LLL and cylindrical in RUL, and breathing pattern with moderate obstruction. As a result of these findings, a kidney biopsy was performed which showed: glomeruli with focal depositions of hyaline material; Congo red positive; positive staining for AA amyloid (figs. 1 and 2). The patient developed favourably and was discharged with diuretics and ACE inhibitors along with his basic treatment and a consultation programme in the CF, nephrology and mental health unit. After 10 months, he was re-admitted to the unit due to a new respiratory exacerbation, with multiple complications during hospitalisation (haemoptysis, acute pancreatitis, among others), and finally developed acute kidney failure which required haemodialysis (rejected for kidney transplant) with subsequent death due to multiple organ failure 60 days after admission (12 months after diagnosis of amyloidosis with renal involvement).

Secondary amyloidosis should be suspected in subjects with longstanding or poorly controlled CF (as was the case with our patient: with late diagnosis, poor adherence to treatment, alcoholism, and depressive syndrome), who have proteinuria, oedema, hepatosplenomegaly, and/or thyroid problems. Early diagnosis is important to make the necessary therapeutic adjustments with a view to kidney transplantation.[4] In patients with CF, the transplantation of the lungs and kidney can be assessed. Annual microalbuminuria testing should be performed as a screening test, although a kidney biopsy is required to confirm the diagnosis. Iodine-123-labelled serum amyloid P component scintigraphy is also useful for diagnosis and to determine the location and extent of the amyloid deposits, although this is not available in most centres.

To date, no effective treatment is available,[5,6] and attention is given to the organ affected. Treatment focuses mainly on controlling chronic bronchial infection-inflammation.

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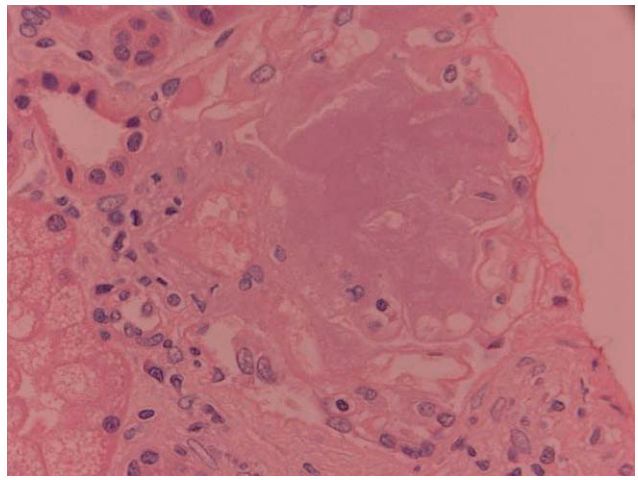

Figure 1. Glomerulus with amyloid deposition. Haematoxylin-eosin staining. Photo courtesy of Dr. Miriam León Fradejas, Servicio de Anatomía Patológica, HRU Carlos Haya, Malaga, Spain.

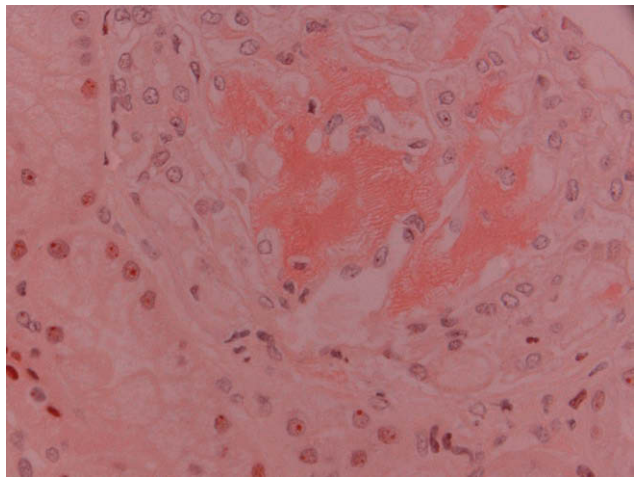

Figure 2. Glomerulus with amyloid deposition. Positive Congo red stain. Photo courtesy of Dr. Miriam León Fradejas, Servicio de Anatomía Patológica, HRU Carlos Haya, Malaga, Spain.

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