Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevier.com/locate/mjafi

Case Report

A case of systemic sarcoidosis with ocular presentation

Maj Vikas Ambiya^{a,*}, Lt Col H.P. Singh^b, Lt Col Sumanta Mandal^c,
Brig A.P. Radhakrishnan^d

^a Graded Specialist (Ophthalmology), Military Hospital, Shillong, India

^b Classified Specialist (Radiology), Military Hospital, Shillong, India

^c Classified Specialist (Medicine), Military Hospital, Shillong, India

^d Commandant, Military Hospital, Shillong, India

ARTICLE INFO

Article history:

Received 25 July 2012

Accepted 11 October 2012

Available online 29 December 2012

Keyword:

Sarcoidosis

Ocular sarcoidosis

Granulomatous uveitis

Introduction

Sarcoidosis is a chronic multisystemic granulomatous disorder thought to result from an exaggerated cellular immune response to a variety of self-antigens or non-self antigens.¹ It is characterized by the formation of non-caseating granulomas in affected organs. Ocular involvement by sarcoid is common and has been reported in upto 78% of patients.² However, among cases of uveitis, sarcoidosis is probably underdiagnosed depending on the extent of the work-up done for diagnosis. Although ocular involvement with generalized sarcoidosis is common, systemic sarcoidosis is diagnosed in a small percentage of patients with uveitis.³ Most retrospective studies of large numbers of patients with uveitis indicate that 5% of cases are associated with biopsy-confirmed systemic sarcoidosis.^{4–6} We report a case that

presented with bilateral granulomatous anterior uveitis and was successfully diagnosed as a case of systemic sarcoidosis on work-up.

Case report

A 34-year-old male individual presented with redness in both eyes for the past 10 weeks. It was associated with mild dull aching pain and slight blurring of vision in both eyes. The symptoms were subacute in onset and slowly progressive in severity. There was a history of weight loss of approximately 6 kg along with intermittent episodes of dry cough over the past 1 year. There was no history of fever/rash/anorexia/joint pains or haemoptysis.

On examination, distant visual acuity in both eyes was 20/20. There was a mild circumcorneal ciliary congestion in both eyes. Granulomatous keratic precipitates (KPs) were present on the corneal endothelium of both the eyes, predominantly in the inferior quadrant (Fig. 1). There were cells and flare of mild grade in the anterior chamber, the density of which could not be precisely graded because of the slight haze in the media due to the presence of granulomatous KPs and the accompanying endothelial haze in both the corneas. Rest of the anterior segment and the posterior segment of both the eyes were normal. The intraocular pressure was 34 mm and 28 mm of Hg in the right and the left eye respectively. The case was given a clinical diagnosis of bilateral granulomatous anterior uveitis. On investigation, the routine haemogram, blood sugar and urinalysis were normal. Mantoux test was negative

* Corresponding author. Tel.: +91 9612950991.

E-mail address: vikasambiya@gmail.com (V. Ambiya).

0377-1237/\$ – see front matter © 2012, Armed Forces Medical Services (AFMS). All rights reserved.

<http://dx.doi.org/10.1016/j.mjafi.2012.10.003>

Fig. 1 – A and B. Bilateral granulomatous anterior uveitis seen as granulomatous keratic precipitates on corneal endothelium of both eyes.

with an induration of 4 mm after 72 h. The chest radiograph revealed bilateral hilar lymphadenopathy which was confirmed by CT scan chest (Figs. 2 and 3). Serum angiotensin converting enzyme (ACE) level was raised to 108 U/L (normal range being 8.00–65.00 U/L). Serum calcium level was normal. Pulmonary function tests were normal. Based on the history, and the presence of bilateral granulomatous anterior uveitis, a negative mantoux test, a raised serum ACE level and bilateral hilar lymphadenopathy, the case was given a final diagnosis of sarcoidosis.

The anterior uveitis responded well to topical steroids and cycloplegics with total disappearance of KPs within 3 weeks (Fig. 4). The case was reviewed by chest physician, started on oral steroids, and is presently under follow-up.

Fig. 2 – Chest radiograph showing bilateral hilar lymphadenopathy.

Discussion

Majority of the cases of anterior uveitis are idiopathic (38–56% cases) and no aetiological cause can be ascertained to them. But every case of bilateral uveitis or granulomatous uveitis, as was in our case, has to be investigated thoroughly to find the aetiology and administer specific treatment if required. Ours was a case of sarcoidosis who presented with a subacute form of bilateral granulomatous anterior uveitis with very mild ocular symptoms. However on thorough investigation, he was found to have multiple findings supportive of the diagnosis of sarcoidosis.

Anterior uveitis is the foremost cause of ocular morbidity in sarcoidosis and often presents early in the course of the disease or before the diagnosis is suspected. Although frequently unilateral at the onset, the second eye involvement

Fig. 3 – Bilateral hilar lymphadenopathy confirmed on computed tomograph of the chest.

Fig. 4 – Keratic precipitates resolved after 3 weeks.

is common at some point during the course of the disease. The uveitis is characteristically granulomatous in nature with medium to large mutton-fat KPs. A subacute presentation occurs more frequently and patients may be relatively asymptomatic until the inflammation is well established. Patients with a chronic course are at a higher risk of developing complications like cataract and secondary glaucoma. Cystoid macular oedema may also be a cause of loss of visual acuity in these patients.

Other ocular manifestations of sarcoidosis include dacryoadenitis, conjunctival granulomas, scleritis, episcleritis, non-specific conjunctivitis, interstitial keratitis, intermediate uveitis, posterior uveitis, and optic neuritis.

Conflicts of interest

All authors have none to declare.

REFERENCES

1. Newman LS, Rose CS, Maier LA. Sarcoidosis. *N Engl J Med.* 1997;336:1223–1234.
2. McCannel CA, Holland GN, Helm CJ, Cornell PJ, Winston JV, Rimmer TG. Causes of uveitis in the general practice of ophthalmology. UCLA Community-Based Uveitis Study Group. *Am J Ophthalmol.* 1996;121:35–36.
3. Mayers M. Ocular sarcoidosis. *Int Ophthalmol Clin.* 1990;30:257.
4. Karma A. Ophthalmic changes in sarcoidosis. *Acta Ophthalmol.* 1979;141(suppl):1.
5. Perkins ES, Folk J. Uveitis in London and Iowa. *Ophthalmologica.* 1984;189:36.
6. Rosenbaum JT. Uveitis: an internist's view. *Arch Intern Med.* 1989;149:1173.