

SHORT COMMUNICATION

Curvilinear streaks in multifocal choroiditis

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PURPOSE. *Discreet chorioretinal spots, neovascular maculopathy, peripapillary atrophy and peripheral curvilinear pigmentary-atrophic streaks are characteristic of Multifocal Choroiditis. We report the presence of curvilinear streaks in the posterior pole.*

METHODS. *Observational series.*

RESULTS/CONCLUSIONS. *Like chorioretinal discreet spots, peripheral curvilinear atrophic-pigmentary streaks may also appear in the posterior fundus, including the macular region, in Multifocal Choroiditis. (Eur J Ophthalmol 2007; 17: 448-50)*

KEY WORDS. *Curvilinear Streaks, Multifocal choroiditis, Presumed Ocular Histoplasmosis Syndrome (POHS)*

Accepted: December 18, 2006

INTRODUCTION

Peripheral curvilinear streaks in multifocal choroiditis (MFC) have been described previously (1, 2). We report four patients with varying sizes of curvilinear streaks, all located in the posterior pole.

Case 1

A 25-year-old woman had experienced a transient field defect in the right eye 1 year earlier due to MFC. When we first examined her, there were scattered pigmentary and atrophic chorioretinitic spots in the fundus. There was also a long, curvilinear chorioretinal atrophic pigmentary streak with a tail of fibrosis just beyond the posterior vascular arcades (Fig. 1). The fellow eye was within normal limits.

Case 2

A 32-year-old, myopic woman experienced central vision loss of her right eye resulting from MFC 18 years earlier. There was progression of the changes in her left

eye 2 years ago. The examination revealed scattered, atrophic-pigmentary chorioretinitic spots in the fundus of both eyes. The right eye also had a curvilinear chorioretinal atrophic streak with tailing fibrosis, within and beyond the posterior pole (Fig. 2). An additional curvilinear streak was present in the far periphery.

Case 3

A 32-year-old woman presented with sudden development of a blind spot 4 years earlier, and had clinical manifestations of MFC. The examination revealed multifocal, chorioretinitic pigmentary and atrophic lesions in the right eye. In the paramacular region, a curvilinear atrophic, pigmentary streak with fibrosis is present.

Case 4

A 33-year-old myopic woman presented with a history of chronic, recurrent acute bilateral vision loss. She had manifestations of MFC with progressive fibrosis. She also had multiple peripheral spots and pigmen-

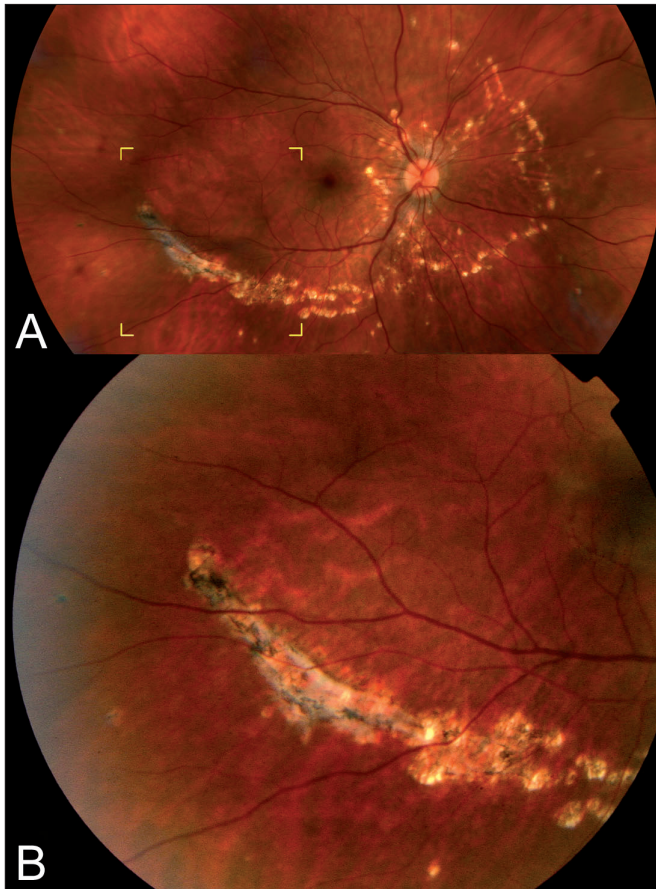


Fig. 1 - (A) Composite fundus photograph of the right eye showing a curvilinear atrophic-pigmentary streak with a tail of fibrovascular proliferation just beyond the vascular arcades. **(B)** Magnified photograph of the fibrovascular portion of the streak.

tary atrophic curvilinear streaks. The streaks in the posterior pole (macula and juxtapapillary area) are fibrotic in nature (Fig. 3).

DISCUSSION

Peripheral chorioretinal streaks were first identified in the presumed ocular histoplasmosis syndrome (POHS), but have since been noted to occur in MFC as well (3-5). The streaks and associated chorioretinitic spots in both abnormalities are virtually indistinguishable. Our four patients with MFC developed streaks in the posterior pole, and to our knowledge, this has not been previously reported in either disorder.

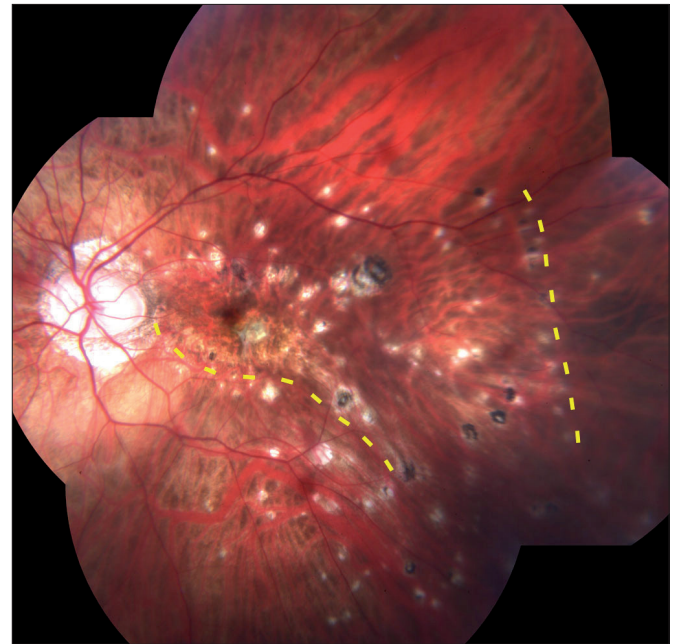


Fig. 2 - Composite fundus photograph of the right eye showing a biphasic, curvilinear, atrophic-pigmentary streak with tailing fibrosis within and beyond the vascular arcades (left yellow dashes) and in the periphery (right yellow dashes).

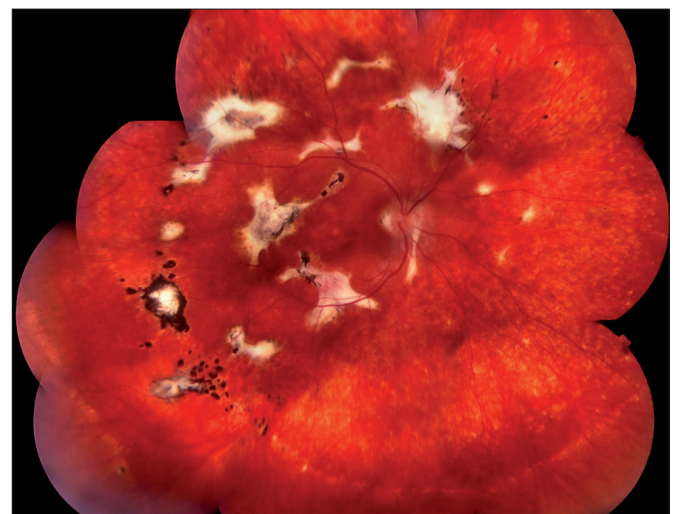


Fig. 3 - Composite fundus photograph of the right eye showing pigmentary, atrophic curvilinear streaks, with the streaks in the macula and juxtapapillary area being fibrotic in nature.

The streaks vary in size and may be seen within the vascular arcades (Fig. 3), within and beyond (Fig. 2), or just beyond the vascular arcades (Fig. 1). The streaks also fluctuate in configuration, occurring in a curvilinear shape (Fig. 1) or forming a biphasic curvilinear pattern (Fig. 2). In all patients, there were also

associated discrete or punched-out chorioretinitic, atrophic, and pigmentary spots and peripapillary atrophy. Thus, all four patients had the typical features of MFC except for the curvilinear streaks, which were in the posterior pole rather than the periphery.

The mechanism by which a curvilinear atrophic and pigmentary streak develops in MFC remains elusive. For instance, the streaks do not appear to correspond to the morphology of the choroidal circulation. One possible explanation is for antecedent, adjacent, discrete chorioretinal acute manifestations to occur by chance in a curvilinear distribution, subsequently exerting tangential pressure on the retinal pigment epithelium. This may induce an inflammatory based traction and tear of the retinal pigment epithelium, eventually leading to a streak. Alternatively, a streak may also represent a confluence of atrophic areas or could be induced by fibrosis, with scar tissue proliferation linking the chorioretinitic spots. Our cases sug-

gest that peripheral curvilinear streaks, like so-called peripheral discrete chorioretinitic spots in MFC, are not limited to the periphery and may occur anywhere in the fundus.

ACKNOWLEDGEMENTS

Supported by The Macular Foundation Inc. The authors do not have any propriety interest.

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