

## Fundus Autofluorescence Findings in A Patient With Multifocal Choroiditis and Panuveitis



### Medical Science

**KEYWORDS :** Multifocal choroiditis and panuveitis, Fundus autofluorescence imaging

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#### ABSTRACT

We present a case of multifocal choroiditis and panuveitis (MFCPU) in a 69-year-old woman. Vitreous hemorrhage, anterior chamber inflammation and iris neovascularization were observed in both eyes. Funduscopy examination revealed multiple retinochoroidal lesions. Fundus autofluorescence (FAF) imaging showed clearly defined hypo-autofluorescent lesions corresponding to the retinochoroidal lesions. Retinal changes were more easily defined on FAF images than on color photographs. FAF images were useful in a patient with MFCPU.

#### INTRODUCTION

Multifocal choroiditis and panuveitis (MFCPU) is a bilateral chronic uveitis characterized by multiple punched-out chorioretinal lesions.<sup>1-4</sup> Several recent reports have described the use of fundus autofluorescence (FAF) to examine cases of MFCPU.<sup>5-9</sup> We describe FAF findings in a patient with MFCPU.

#### CASE PRESENTATION

A 69-year-old woman complaining of blurred vision in both eyes was referred to our hospital. Upon initial examination, her best-corrected visual acuity (BCVA) was 0.8 in the right eye and 0.7 in the left eye. Intraocular pressure (IOP) was 15 mm Hg in the right eye and 28 mm Hg in the left eye. Slit-lamp examination showed cortical opacities in both lenses. Fundus examination showed no abnormalities.

Two months after the initial visit, the BCVA in the left eye had decreased to 0.2 due to mild vitreous hemorrhage. One month later, a vitreous hemorrhage occurred in the right eye. Although this vitreous hemorrhage improved after two months, an anterior segment examination revealed anterior chamber cell inflammation and flare in both eyes. Iris neovascularization with posterior synechiae also was observed in the right eye. One month later, posterior synechiae had developed in both eyes, and cortical opacities had progressed in both lenses. The patient's BCVA had deteriorated to 0.02 in the right eye and 0.07 in the left eye. Therefore, a pars plana vitrectomy with lensectomy was performed in the right eye. A postoperative fundus examination showed multiple retinochoroidal lesions in the right eye (Figure 1).



Figure 1. Fundus photographs of the right eye.

Fluorescein angiography revealed these lesions as clearly defined hyperfluorescent spots (Figure 2). Retinal ischemia was not detected.

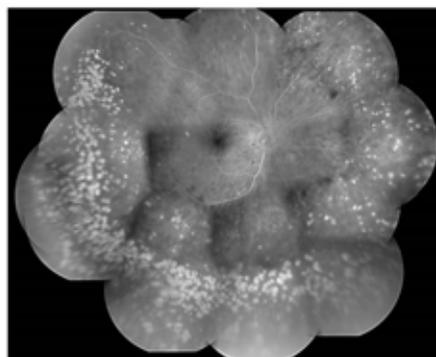


Figure 2. Fluorescein angiography of the right eye.

From these findings, the patient was diagnosed with MFCPU. Six months later, a pars plana vitrectomy with lensectomy was performed in the left eye. A postoperative fundus examination showed multiple retinochoroidal lesions in both eyes (Figure 3A and B). FAF imaging showed clearly defined hypo-autofluorescent lesions corresponding to the retinochoroidal lesions (Figure 3C and D).

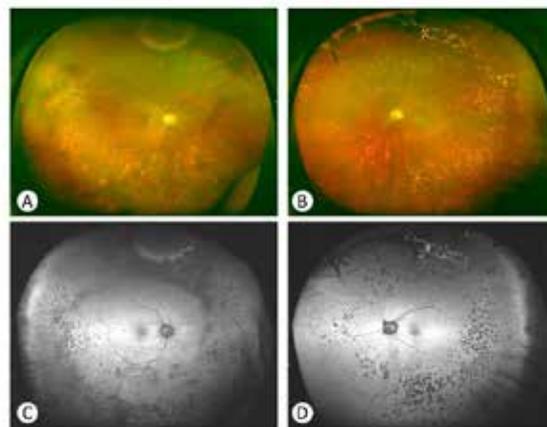


Figure 3. Fundus photographs (A, B) and FAF images (C, D) of the (A, C) right and (B, D) left eyes.

Her BCVA was maintained at 0.7 in the right eye and 0.3 in the left eye during a one-year follow-up period.

#### DISCUSSION

Several reports have described the use of FAF to examine cases

of MFPCPU.<sup>5-9</sup> Haen and Spaide<sup>5</sup> evaluated 18 patients with MFPCPU. According to their report, chorioretinal hypoautofluorescent spots > 125 microns usually had the clinically evident correlate of a punched-out scar visible by color fundus photography. In contrast, chorioretinal hypoautofluorescent spots less than 125 microns typically were not visible by color fundus photography. In this present case, retinochoroidal lesions were more easily defined on FAF images than on color photographs.

In addition, retinochoroidal lesions varied in distribution. Jung et al.<sup>8</sup> evaluated 18 eyes of 13 cases. According to their report, 13 eyes presented with diffuse pattern, six eyes with multizonal, and two with zonal pattern. Patterns of retinochoroidal lesions included zones surrounding the optic nerve, multiple geographic zones in the mid and far periphery, and a diffuse peripheral pattern with relative sparing of the central macula. In this present case, retinochoroidal lesions were detected in the mid-peripheral retina with sparing of the central macula.

## CONCLUSIONS

Although our findings were based on a single case, FAF images were useful in a patient with MFPCPU.

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