

Optical Coherence Tomographic Findings in A Patient With A Congenital Retinal Fold



Medical Science

KEYWORDS : Congenital retinal fold, Optical coherence tomography

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ABSTRACT

We present a case of congenital retinal fold in a 9-year-old girl. Funduscopy revealed a retinal fold extending from the optic disc toward the naso-superior peripheral retina. Optical coherence tomography (OCT) findings revealed schitic changes in the sensory retina and a large nerve fiber layer bundle. OCT is useful in visualizing retinal changes in patients with retinal folds.

INTRODUCTION

Retinal folds are often observed in infantile vitreoretinal abnormalities, including retinopathy of prematurity, familial exudative vitreoretinopathy, persistent fetal vasculature, and congenital toxoplasmosis.¹⁻³ Few reports have described the use of optical coherence tomography (OCT) to examine cases of retinal folds.¹ We describe OCT findings in a patient with retinal fold.

CASE PRESENTATION

A 9-year-old girl presented with visual disturbance of her left eye. Her best corrected visual acuity was 1.2 in the right eye and 0.7 in the left eye. Slit-lamp examination showed no abnormalities in both eyes. Funduscopy revealed a retinal fold extending from the dragged optic disc toward the naso-superior peripheral retina (Figure 1A and B). Fluorescein angiography clearly defined the fibrovascular structure of the retinal fold and the

macula was located at the temporal border of the optic disc (Figure 1C and D).

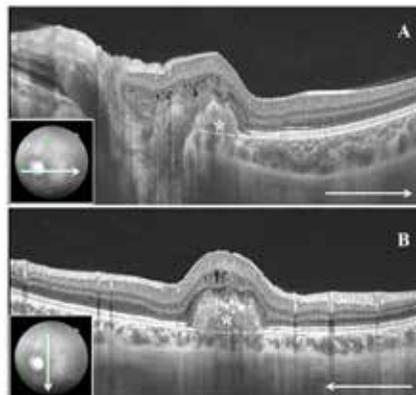


Figure 2. Horizontal (A) and vertical (B) OCT images of the left eye.

DISCUSSION

We found very few cases in literature of NFL bundles presenting as retinal folds upon OCT examination. Katagiri et al.¹ described that OCT showed the detailed structures of the retinal deformities progressing from retinal dragging to retinal folds. According to their report, NFL bundles arose from the progression of NFL thickenings to two distinct bundles, which then progressed to one large bundle. Similarly, a large NFL bundle was detected in this present case.

CONCLUSIONS

Although our findings were based on a single case, OCT is useful in visualizing retinal changes in patients with retinal folds.

REFERENCES:

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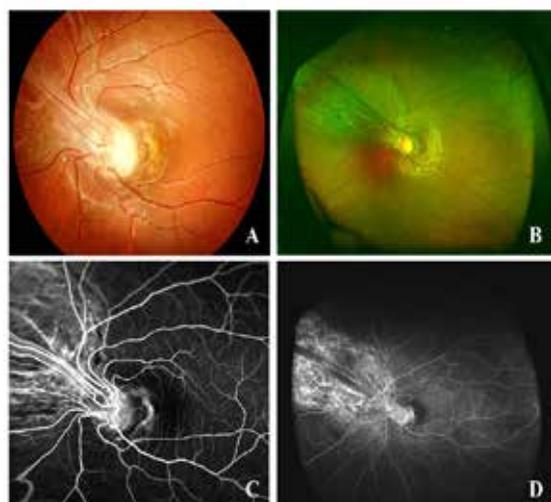


Figure 1. Fundus photographs (A, B) and fluorescein angiography (C, D) of the left eye.

OCT findings revealed schitic changes in the sensory retina and a large nerve fiber layer (NFL) bundle (Figure 2, asterisk), as described by Katagiri et al.¹ Despite the resemblance of this large NFL bundle to

choroidal neovascularization, the retinal pigment epithelium layer showed a normal aspect.