

(47)

# Acute retinal pigment epithelitis in 18 years old patient

## *Ostre zapalenie nabłonka barwnikowego u 18-letniej pacjentki*

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**Summary:** We report case of acute retinal pigment epithelitis (ARPE), a very rare ophthalmic disorder, which has a very good final visual prognosis. The 18 years old woman was examined by ophthalmologist for sudden visual decrease of vision and dark spot in visual field of her left eye. The best corrected visual acuity (BCVA) of the left eye at the initial diagnosis was 0.1 and after 4 months improved to 0.9. The diagnosis of ARPE was made on the basis of fundoscopy, fluoresceine angiography, electroretinography and optical coherence tomography (OCT) examination.

**Słowa kluczowe:** ostre zapalenie nabłonka barwnikowego.

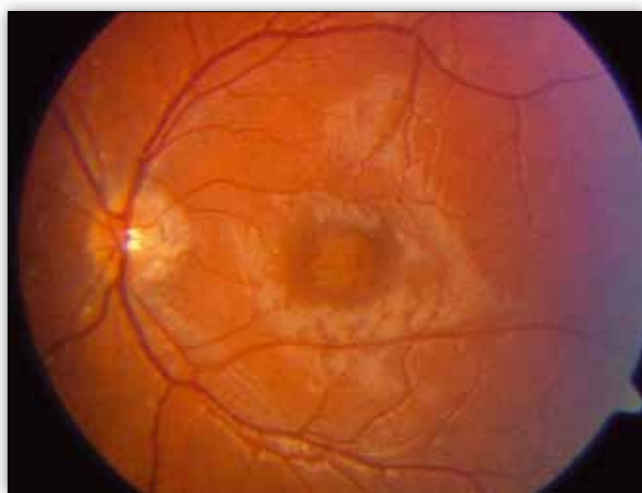
**Key words:** acute retinal pigment epithelitis.

### Introduction

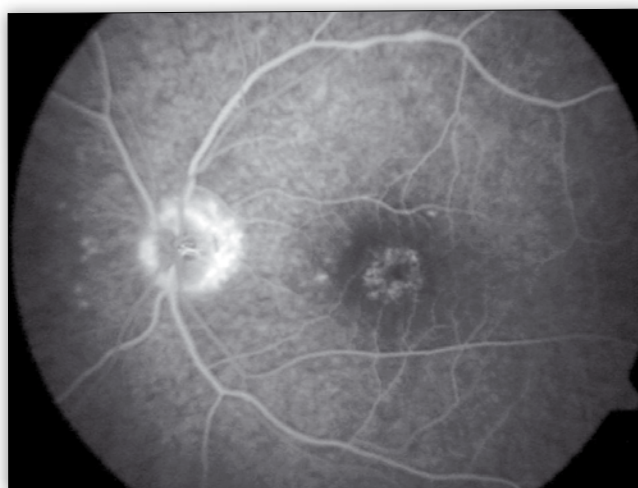
Krill and Deutmann (1) described acute retinal pigment epithelitis in 1972. Acute retinal pigment epithelitis is a rare, idiopathic and self-limiting benign inflammatory disorder of retinal pigment epithelium in macular area. Although the effective treatment is unknown there is excellent prognosis for visual recovery. In 75% of cases the disease is unilateral, without any signs or symptoms of intraocular inflammation. At the time of diagnosis patients are usually in their 3th – 5th decade of life. The condition is characterised by suddenly diminished central vision, occasionally associated with metamorphopsia (2). We present a case of 18 years old patient with typical signs of ARPE.

### Case report

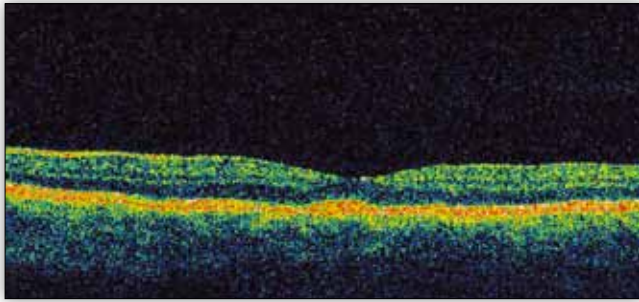
18 years old woman was examined by ophthalmologist at the beginning of July 2005, for suddenly decreased vision and dark spot in visual field of her left eye. There was no history of trauma, systemic disorders and prior ocular complaints. Family history was not significant. First examination showed BCVA 1.0 cc –0.25 D (in right eye) and 0.1 ( in left eye, no improvement with glasses,). There was central scotoma in Amsler grid test in left eye. Eyelids and anterior segment as well as intraocular pressure were normal in both eyes. Fundus examination of the right eye was normal and of the left eye revealed discrete, tiny aggregations of small brown dots at the level of retinal pigment



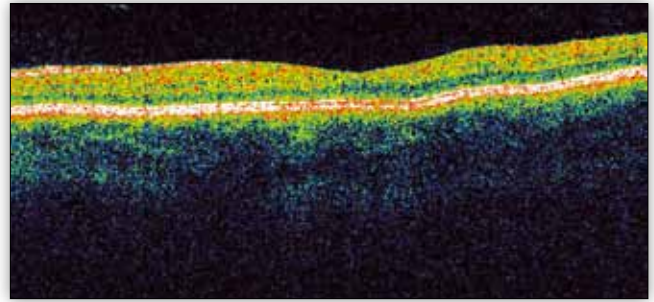
**Fig. 1.** Fundoscopy of the left eye at the first examination.  
**Ryc. 1.** Dno oka lewego w trakcie pierwszego badania.



**Fig. 2.** Fluoresceine angiography of the left eye at the initial examination.  
**Ryc. 2.** Angiografia fluoresceinowa oka lewego w trakcie pierwszego badania.



**Fig. 3.** OCT of the left eye at the time of diagnosis.  
**Ryc. 3.** OCT oka lewego w chwili rozpoznania.



**Fig. 4.** OCT of the left eye after 4 months of observation.  
**Ryc. 4.** OCT oka lewego po 4 miesiącach obserwacji.

epithelium (RPE), surrounded by oval and yellow hypopigmented „halo” (Fig. 1).

The fluorescein angiography and OCT were performed. The fluorescein angiogram (FA) showed small areas of hyperfluorescence with hypofluorescence in the centre, with no evidence of leakage (Fig. 2).

The RPE-layer in OCT was significantly thicker and irregular.

Scotopic and photopic ERG were normal. The ARPE was diagnosed and therefore no treatment was prescribed and follow-up visits were scheduled. On the next follow-up visit patient reported slow improvement of visual acuity and brightening of the dark spot in visual field of left eye. At the last visit, at the end of October 2005 (4 months after initial symptoms), BCVA in left eye was 0.9 cc 1.0 Dsph. There was a relative scotoma in Amsler grid test of left eye. The results of ophthalmoscopy and FA did not changed. There was a partial resolution of changes in OCT. The RPE layer in OCT in the foveal area was thinner and in the rest of the macula more regular (Fig. 4).

### Discussion

ARPE is a rarely reported eye disorder, usually diagnosed in 3<sup>th</sup>-5<sup>th</sup> decade. In our patient it was seen in 2 decade. The etiology of ARPE remains unknown. Although some authors suggest it may have viral etiology<sup>3</sup>, up to this time this correlation was not clearly shown. Prior to onset of the disease our patient was completely healthy, without any complaints suggesting the viral origin of the eye disease. Many authors have suggested a correlation between ARPE and central serous chorioretinopathy (CSCR)<sup>4,5</sup>. Our patient was observed by ophthalmologist for 5

months and no signs of CSCR were disclosed. Maybe later in the course of the observation some changes characteristic for CSCR will appear. During follow-up we could observe improvement in visual symptoms (visual acuity and central visual field defect in Amsler grid test). Improvement noticed by the patient was well documented by improvement in OCT scans. The RPE layer in OCT in the fovea was thinner and in the rest of the macula more regular after 4 month from initial examination. In our opinion OCT is a very useful method of monitoring changes of retinal pigment epithelium. During follow-up we did not observe any change of the macular lesions in funduscopy and of the results of FA.

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