

The role of enhanced depth imaging optical coherence tomography in the diagnostics of tuberculous chorioretinitis. The case series

MD, Phd Zborovska O., Phd Dorokhova O.
The Filatov Institute of Eye Diseases and Tissue Therapy,
NAMS Ukraine, Ukraine, Odessa

Financial interests: none

Background: Ukraine is the country with high incidence of tuberculosis. In the structure of extrapulmonary tuberculosis (TB) ocular TB ranges from 6.2-8% to 14.6% -16.8%. TB is etiological factor of ocular inflammation in 14-27.6%. Ocular TB is very hard in diagnostics and based only on combination of clinical signs, IGRA, and TST(TB-skin tests).

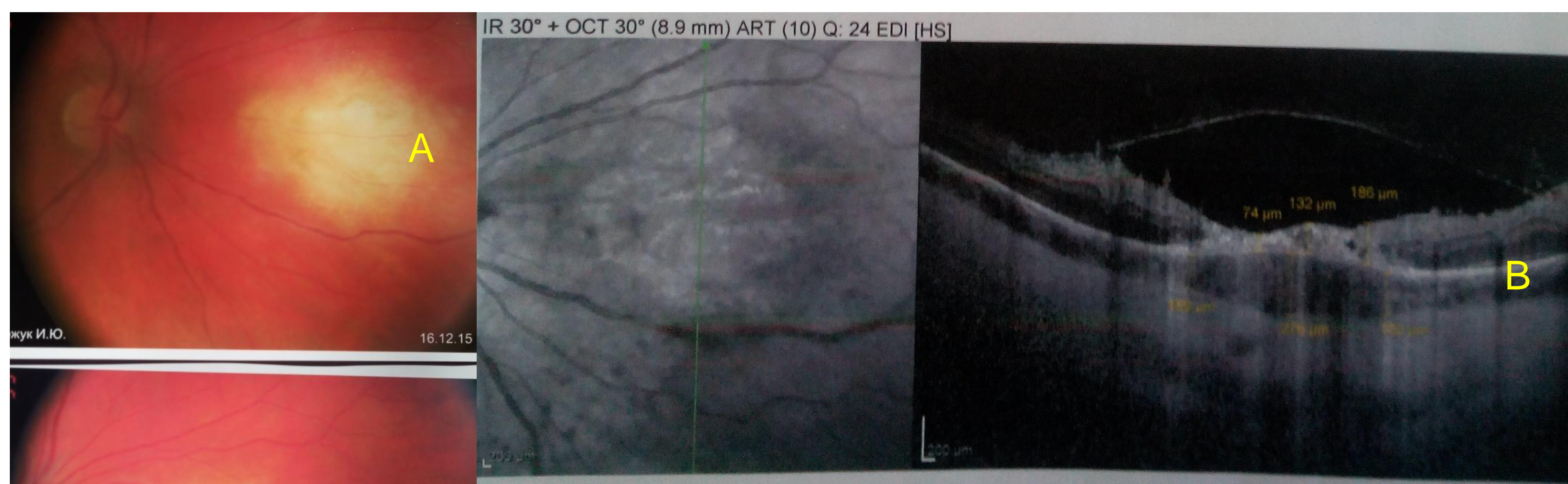
Patients & Methods: Study included eight patients with presumed tuberculous chorioretinitis. Carrying Mantoux test was impossible in 7 patients due to the risk of vision loss. All patients were examined by EDI-OCT in addition to the standard ophthalmological examinations.

Results: We revealed choroidal thickening in inflammatory foci by EDI-OCT in 7 patients. We also determined RPE-choroid complex elevation. Secondary retinal alterations were also present over the area of choroidal thickening. These patients were assigned to ex-juvantibus anti-TB drugs. Positive dynamics had been reached on ex-juvantibus therapy, and patients were assigned to anti-TB therapy for 6–9 months. Upon further observation and treatment all these patients had chorioretinal scar formation. Complete remission with anti-TB therapy was achieved in 6 months in 2 patients. In 5 patients complete remission was achieved in 9 months. Choroidal thickening and RPE-choroid complex elevation were not observed by EDI-OCT after full chorioretinal scar formation. In 1 case with presumed tuberculous chorioretinitis choroidal changes were insignificant by EDI-OCT. But iso-hyperreflective intraretinal mass was determined. As known, isolated neuroretinal involvement extremely indistinctive for tuberculous chorioretinitis. Search for a possible etiology of chorioretinitis was continued, resulting in diagnosis ocular bartonellosis. On the specific therapy regression of inflammation and resorption of focus was achieved in the short term.

Fundus

OCT

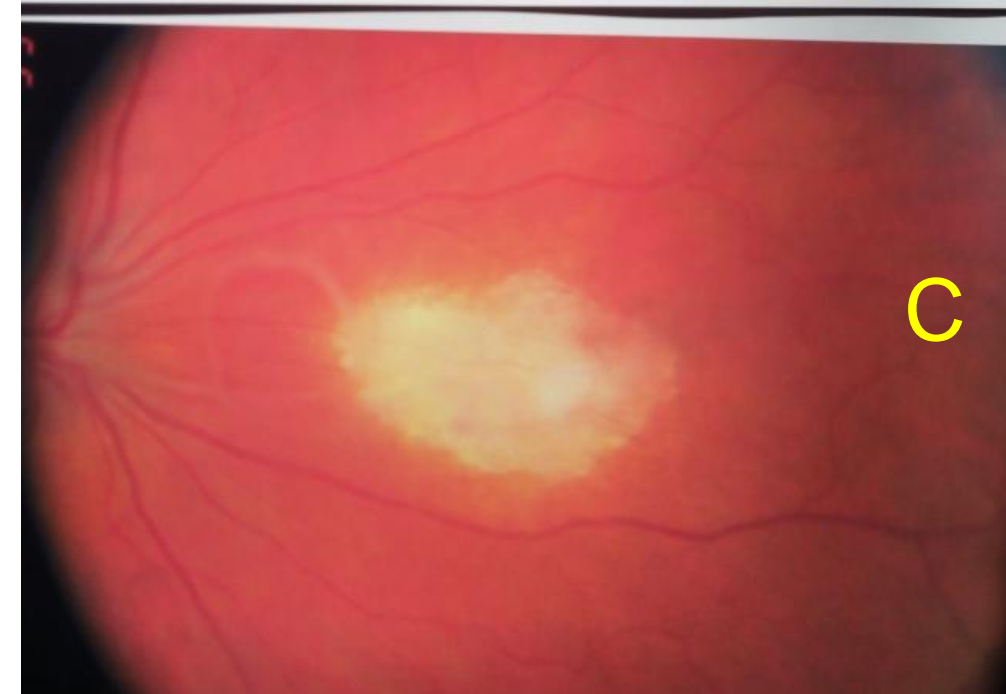
OD
16/12/2015



Case 1 :

A 31 years-old woman. She got antitoxoplasmic therapy for 4 months previously (deterioration in condition) before refer in our clinic. Diagnosis presumed tuberculous chorioretinitis was made. After getting choroidal changes by EDI-OCT we made a decision to start ex-juvantibus anti-TB therapy. In 10 days partly regression was achieved. Then she was assigned for anti-TB therapy for 9 months.

OD
26/12/2015

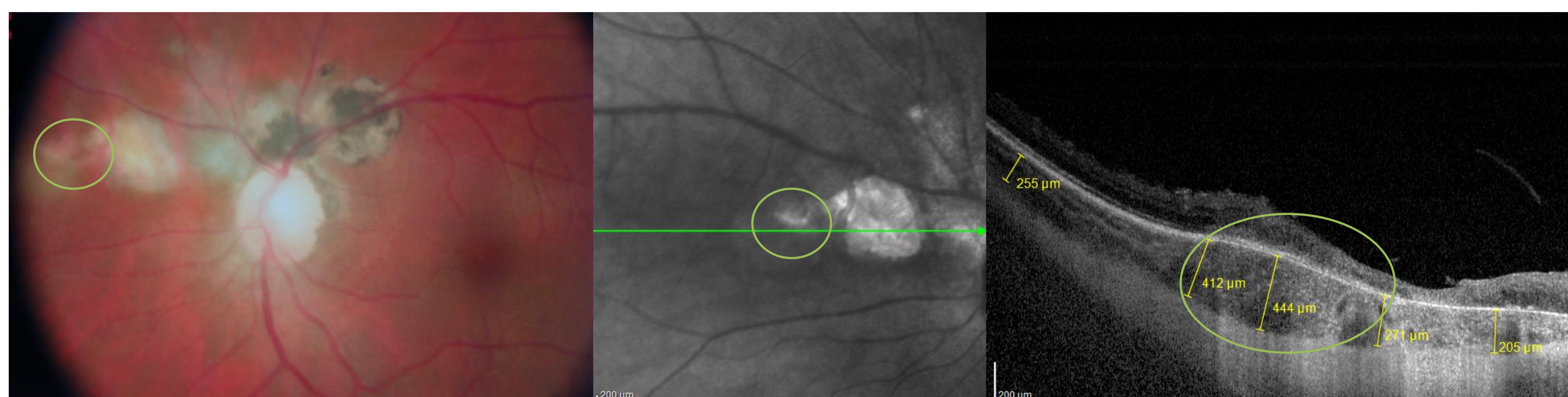


Figures case 1 OD: A+B fundus and OCT before treatment. Fundus in 10 days after beginning ex-juvantibus anti-TB therapy.

Fundus

OCT

OS Feb
2017



Case 2:

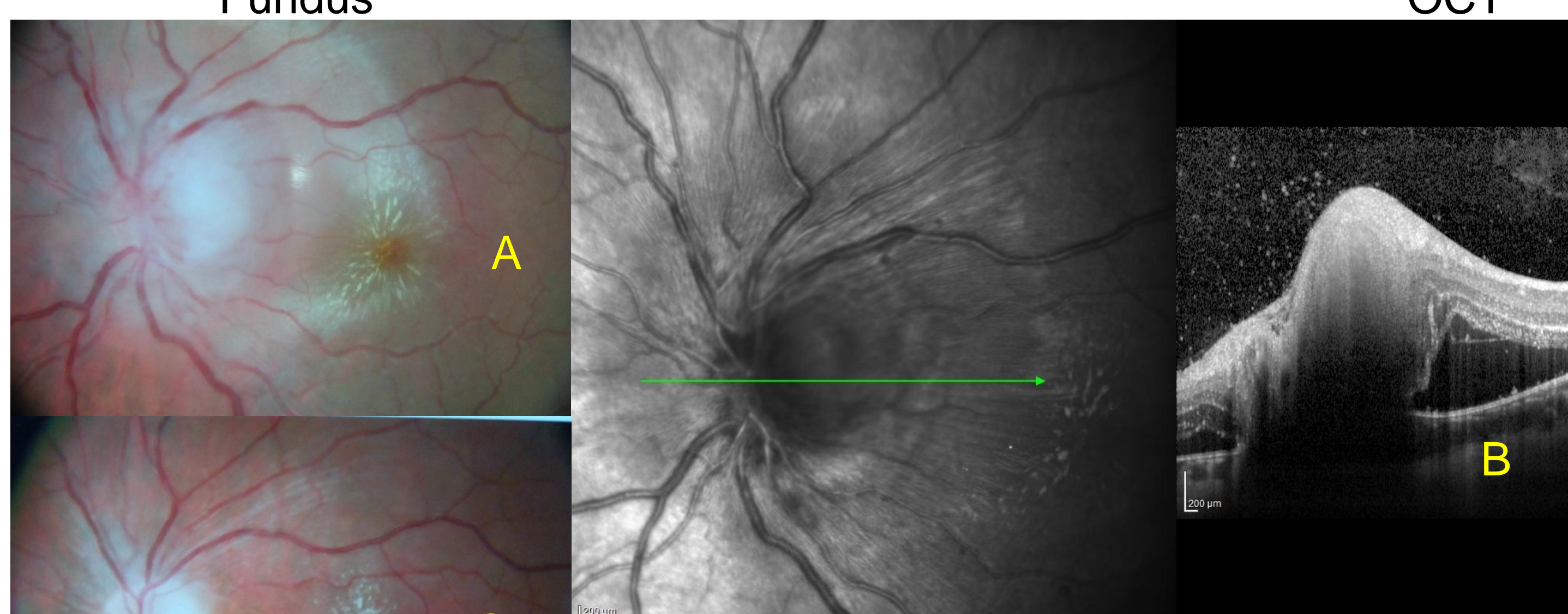
A 26 years-old woman. Has 5 episodes of chorioretinitis within last 2 years. Diagnosis presumed tuberculous chorioretinitis was made. After getting choroidal changes by EDI-OCT we made a decision to start ex-juvantibus anti-TB therapy. Then she was assigned for anti-TB therapy for 4 months.

Figures case 2 OS: A+B fundus and OCT before treatment.

Fundus

OCT

OS Dec
2016



Case 3:

A 12 years-old girl with acute chorioretinitis. She has a history of positive Mantoux test. We suggested tuberculous granuloma. But EDI-OCT showed not choroidal but intraretinal inflammatory mass. Search for a possible etiology of chorioretinitis was continued, resulting in diagnosis ocular bartonellosis. After few weeks of getting specific treatment regression of inflammation and resorption were achieved.

OS Jan
2016



Figures case 3 OS: A+B fundus and OCT before treatment (Vis 0,01). Fundus in 2 weeks after treatment (Vis 0,3).

Conclusions: EDI-OCT can be effectively applied in diagnostics of tuberculous chorioretinitis, or even act as a key method of examination in cases of carrying the Mantoux test impossibility