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Dry eye syndrome and cataract as ocular manifestations of Crohn's disease

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Streszczenie: Purpose: Crohn's disease is disorder classified under inflammatory bowel disease. Apart from the classic features of the inflamed bowel, patients may develop widespread systemic manifestations, including ocular changes. The authors present a case of ocular complaints in patient with Crohn's disease.

Material and methods: Case report of 11-year-old girl with Crohn's disease. We perform complete ophthalmologic examination and dry eye syndrome tests.

Results: A female patient with symptoms of dry eye syndrome and cataract in the both eyes was reported.

Conclusions: Crohn's disease may be associated with ocular findings, such dry eye syndrome and cataract. Evaluation of the eye should be a routine component in the care of patients with Crohn's disease.

Słowa kluczowe: choroba Crohna, suche oko, zaćma.

Key words: Crohn's disease, dry eye, cataract.

The inflammatory bowel diseases (IBDs) are common causes of chronic gastrointestinal disease in the developed world. Ulcerative colitis and Crohn's disease are two main disorders classified under IBD. The incidence of Crohn's disease appears to have been increasing over recent decades, and affects from 1 in 250 to 1 in 1500 people this disorder peaks in the early and late adulthood, and both sexes are equally affected (1,2,3).

The pathogenesis of CD is complex and both environmental and genetic factors contribute to its etiology. The susceptibility gene for CD was identified in 2001, on chromosome 16 and was named NOD2/CARD15 (4,5). Apart from the classic features of the inflamed bowel, such as abdominal pain, diarrhea, and rectal bleeding, patients may develop widespread systemic manifestations (6). Ophthalmic complications of CD have been recognized since the first description of two patients with conjunctivitis and corneal infiltrates, resembling „xerophthalmia” by Crohn in 1925 (7). Published English literature indicates that uveitis, episcleritis, and scleritis are by far the most common ophthalmic complications of CD (8).

In this study we present a case of ocular findings in patient with Crohn's disease.

Case report

A 11-year-old Polish girl with a 7-year history of chronic Crohn's disease was admitted to the Clinic of the Department of Pediatric Ophthalmology Medical University of Białystok (Poland), with the complaints of blurred vision, mild ocular pain and redness for 4 days in the both eyes. Mild photophobia and tearing were pre-

sent. His last eye exam was 1 year previously, at which time she had conjunctivitis. Visual acuity was 1.0 uncorrected in each eye. Slit lamp examination revealed an overlying bilateral conjunctival erythema and papillary hypertrophy. Posterior cataract in both eyes was present. The vitreous was clear in each eye and dilated fundus examination was normal. The patient was diagnosed with bilateral conjunctivitis and posterior subcapsular cataract. Antibiotic ophthalmic solution was prescribed. After 7 days conjunctival findings were resolved. The complaints such as redness, foreign body sensation, irritation, intense burning, and blurred vision were noted in eyes during 6-week period. Topical corticosteroids were prescribed, without the improvement. The patient had tests for keratoconjunctivitis sicca: Schirmer's test without anesthetics was <5.0 mm in both eyes, fluorescein tear breakup time of 5 seconds, and corneal fluorescein ocular staining score was of 2 or greater. The patient was diagnosed with dry eye syndrome. Eyedrops formulae containing hyaluronan was prescribed. After 3 weeks a chief complaint of dry eye associated symptoms were resolved.

At the time of enrollment, oral corticosteroids were periodically prescribed by the pediatricist. Slit-lamp biomicroscopic examination indicates no progression of the cataract during 1 year of the observation.

Discussion

Crohn's disease is a chronic relapsing inflammatory bowel disease and may affect any part of the gastrointestinal tract. This disorder is associated with a variety of ophthalmic, skin, joints, liver and

vasculature complications, usually of inflammatory nature. The reported incidence of ocular findings has ranged from 3.5% to 11.8% (1,2,6,9). Ocular complaints are often nonspecific and include: conjunctivitis, episcleritis, scleritis, keratitis, keratopathy, anterior uveitis, Sjogren's syndrome, sicca symptoms, nasolacrimal duct obstruction, cataracts in patients, who have been on long-term steroids, retrobulbar neuritis, papillitis, retinitis, pattern dystrophy of the retinal pigment epithelium, retinal artery occlusion, cystoid macular edema, idiopathic central serous chorioretinopathy, pars planitis, neovascular glaucoma as a complication of retinal vasculitis, extraocular muscle paresis, orbital myositis (1,9,10-15).

The progressive, chronic course and sequelae of CD call for a long-term perspective on systemic and local treatment. Ocular complications are secondary to the inflammatory process or to corticosteroid therapy. The standard therapy for ocular inflammation in CD is the use of oral and topical corticosteroids and topical cyclopegics. Oral and topical non-steroidal anti-inflammatory drugs, and tear substitutes may also be beneficial and may reduce the need for corticosteroids (8).

Conclusions

The evaluation of the eyes should be a routine component in the care of patients with Crohn's disease. Ophthalmologists should be aware of the wide spectrum of ocular abnormalities associated with Crohn's disease that may require and respond to anti-inflammatory agents.

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Praca wpłynęła do Redakcji 3.08.2004 r. (623).
Zakwalifikowano do druku 4.05.2005 r.

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