PSa07-02
The diagnostics of the preclinical stage of secondary glaucoma at patients with Fuchs heterochromic cyclitis

Panchenko M.[1], *Honchar O.*[1]

[1]Kharkiv National Medical University, Kharkiv, Ukraine

Objective. To study the features of the preclinical stage of secondary glaucoma at patients with Fuchs heterochromic cyclitis.
Materials and methods. Were examined 26 patients (26 eyes) with Fuchs heterochromic cyclitis. In the comparison group were 12 patients with unilateral intermediate uveitis. In the control group were 15 healthy individuals. All patients were examined by standard clinical and standard ophthalmology methods of diagnostic including ultrasound biomicroscopy at a sound with a frequency of 50 MHz.
Results. In the active stage of heterochromic cyclitis with increased intraocular pressure, was defined the ciliary body enlargement ($p<0.05$; maximum, and at a distance of 1 mm and 2 mm from the scleral spur), that may be concerned with inflammatory process, and also was defined the decrease on 23.3% of the iridocorneal angle in comparison with the control group and paired eyes. In remission stage of heterochromic cyclitis with normal intraocular pressure, was observed the enlargement of the ciliary body at a distance 2 mm from the scleral spur on 27.8% in comparison with the paired eye [that according Marchini G. et al. (2003) may be evidence of increase in uveoscleral outflow]. This index more than in four times above than at patients with unilateral intermediate uveitis. The magnitude of the iridocorneal angle in these patients was on 17.8% smaller in compared to paired eyes (control – 2.8%; $p<0.05$). We established that constriction of iridocorneal angle combined with the intensification of uveoscleral outflow in patients with heterochromic cyclitis in remission with normal intraocular pressure (and appropriate gonioskopic changes) indicate the preclinical stage of secondary glaucoma in Fuchs heterochromic cyclitis. Based on the data provided a method of diagnosing the second stage of Fuchs' heterochromic cyclitis (patent UA 46490 U).
Conclusions. At unilateral Fuchs heterochromic cyclitis was indicated constriction iridocorneal angle and ciliary body enlargement in comparison with a paired eye in remission cyclitis as at increased or at normal intraocular pressure. Our studies allow to identify preclinical stage of secondary glaucoma in Fuchs heterochromic cyclitis and opened especially its diagnosis.

PSa07-03
Veränderungen der retinalen Nervenfaserschichtdicke bei Papillenödem bei Uveitis im Verlauf

Fischer C.[1], *Kogelboom K.*[1], *Heiligenhaus A.*[1], *Heinz C.*[1]

[1]Augenabteilung am St. Franziskus-Hospital Münster, Münster, Germany

Fragestellung. Ein Papillenödem findet sich häufig bei Uveitis-Patienten und reagiert zum Teil nicht auf eine antientzündliche Therapie. Analysiert werden soll, ob ein Papillenödem die retinale Nervenfaserschichtdicke im Verlauf einer Uveitis beeinflusst und sich daher eine Therapieindikation ergeben würde.
Methodik. Prospektive monozentrische Untersuchung bei Uveitis-Patienten. Durchgeführt wurden Gesichtsfelduntersuchungen (Humphrey 30/2), Heidelberg Retina Tomographie (HRT) und spektrale optische Kohärenztomographie (OCT). Diese Parameter wurden mit einem klinischen und in der Fluoreszenzangiographie (FAG) festgestellten Papillenödem zu Beginn und am Ende der Nachbeobachtungszeit korreliert.
Ergebnisse. Insgesamt wurden 28 Augen von 19 Patienten eingeschlossen. Das Durchschnittsalter lag bei der Erstuntersuchung bei 35,0±17,8 Jahren. Die mittlere Nachbeobachtungszeit betrug 48,8±4,7 Monate. Vorherrschende Uveitislokalisation war eine intermediäre Uveitis (64,3%), gefolgt von einer anterioren (25%) und einer Panuveitis (10,7%). Alle Augen zeigten ein Papillenödem bei Erstuntersuchung und vier Augen (14,3%) auch ein Papillenödem bei der letzten Untersuchung. Der mittlere IOD betrug bei der Erstuntersuchung 13,4±4,9 mmHg und bei der letzten Untersuchung 13,8±3,0 mmHg (p=0,7). Die mittlere Sehschärfe veränderte sich von 0,618±0,26 (Dezimal) auf 0,725±0,27 (p=0,077). Bei Augen mit einem Papillenödem zu beiden Zeitpunkten zeigte sich im Randsaumvolumen (0,645±0,324 mm3 und 0,660±0,093 mm3; p=0,923) und der Randsaumfläche (2,218±0,53 mm2 und 2,213±0,54 mm2; p=0,60) kein Unterschied. In der Analyse der RNFL mit dem HRT betrug die Dicke 0,18±0,057 µm zu Beginn und 0,21±0,076 µm am Ende (p=0,61). Die im OCT gemessene RNFL betrug zu Beginn 177,25±25,58 µm und 153,5±12,61 µm am Ende (p=0,25). In der Gruppe der Augen mit einer Rückbildung des Papillenödems am Ende der Nachbeobachtungszeit war die RNFL im HRT zu Beginn 0,245±0,098 µm dick und am Ende 0,254±0,064 µm (p=1,0). In der Analyse mit dem OCT betrug die RNFL-Dicke zu Beginn 131,45±39,73 µm und am Ende 128,38±52,78 µm (p=0,899).
Schlussfolgerung. Die vorliegende Arbeit zeigt, dass ein Papillenödem über eine mittlere Nachbeobachtungszeit von etwa 4 Jahren die retinale Nervenfaserschicht sowohl mit der OCT oder dem HRT gemessen nicht beeinträchtigt.

PSa07-04
Cataract surgery in juvenile idiopathic associated uveitis

Ali A.[1], *Lightman S.*[1]

[1]University College London, Institute of Ophthalmology, London, United Kingdom

Aim. We wish to examine the difficulties encountered in the cataract surgery in juvenile idiopathic arthritis associated Uveitis.
Introduction. Katarakts are one of the major vision threatening sequelae in Juvenile Idiopathic Arthritis associated uveitis and can result in irreversible amblyopia. Cataract occurrence ranges from 19–81% in Juvenile Idiopathic arthritis associated uveitis (JIA-U). The development of cataracts is affected by the extent of the uveitis, level of inflammatory control, and accompanying corticosteroid utilisation. The surgical intervention for these cataracts and the perioperative care of the patient is crucial to obtain the best potential visual outcome. Many studies have observed that cataract removal in JIA-U is complicated with difficulties such as post-surgical uveitic relapses, pupillary membranes, glaucoma, macular edema and hypotony, which have a high risk of blindness. There is much dispute concerning the placement of an intraocular lens, the benefit of visual improvement and deterrence of amblyopia may outweigh the complications of hypotony, membrane formation macular edema and lens deposits affiliated with intraocular lens.
Methods. This paper looks at the current evidence of visual outcome from the various surgical techniques employed and will evaluate the evidence for current treatment modalities involved in control of ocular inflammation and the management of complications arising from cataract surgery and placement of an intraocular lens.
Conclusion. Cataracts remain a highly controversial and its management in JIA-U remains a plague to ophthalmologists. It is therefore essential that preventative measures be undertaken to reduce the incidence of cataracts. These strategies include early screening guidelines for JIA-U to identify these uveitic cases early and administer treatment to prevent the development of cataracts. Thorne et al established that topical steroids greater than 3 drops/d were affiliated with cataract development. This reinforces the need for alternative immunosuppressive therapy. One must bear in mind even with a successful cataract surgery the outcome of cataract surgery may be affected by the state of the optic nerve and the macula. Cataracts associated with JIA-U are one of the most technically difficult procedures to perform, requiring different approaches with aggressive treatment including control of inflammation, one can expect good visual outcome in most patients even with IOL implantation.