BOOK OF SELECTED ABSTRACTS

Contents:

Orthoptics – SESSION 2

Orthoptic Assessment in Homonymous Hemianopia resulting from Posterior Cerebral Artery Ischemic Stroke

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Cerebrovascular accidents, commonly known as strokes, result from reduced blood flow to specific brain regions, leading to neurological injury. Posterior Cerebral Artery (PCA) ischemic strokes are relatively rare, accounting for 5-10% of all cerebral infarctions. Approximately 70% of patients with PCA strokes experience visual impairments, with the most common manifestations being complete or partial homonymous hemianopia (HH), quadrantanopia, and smaller visual field losses. This presentation will explore PCA stroke risk factors and symptoms, with a focus on neurophysiology and the phenomenon of macular sparing. Additionally, it will include a case study of a PCA stroke patient, highlighting orthoptic examination results, particularly in terms of central and peripheral fusion. The discussion will also cover spontaneous recovery following strokes.

Strabismus – SESSION 3

Restrictive strabismus in thyroid orbitopathy: is muscle resection safe and effective?

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Introduction: Restrictive strabismus is diagnosed in 15% of all thyroid eye disease (TED) cases. Strabismus surgery is implemented in absence of disease activity. Retrospective report includes 9 cases of restrictive strabismus in patients treated for TED by steroids, radioisotope therapy and decompression (4 patients).
Methods: Study included nine patients operated for restrictive strabismus, with absence of active TED over 12 months. In all cases presented bilateral esotropia, in 4 – also unilateral hypotropia (all cases after decompression). Staged surgery included from 2 (esotropia cases) to 4 operations (esotropia/ hypotropia cases).
Treatment: Staged surgery - recession of MR (7.0 mm) followed by plication of both LR in 3 patients and by resection of LR in one patient; recession of both medial recti by “relaxed-muscle” technique in five patients. Vertical deviation had been managed 3 months after 1-muscle and 12 months after 2-muscle esotropia surgery, by recession of IR in one eye and recession of SR in other eye. Remaining diplopia was corrected by plication of IR in one and by prisms in 3 cases.
Results: Staged surgery allowed to achieve diplopia-free field of vision without prisms in 5 and with prisms in 4 patients. One patient had local inflammatory reaction after resection of LR. No cases of anterior ischemia and overcorrection reported.
Conclusions: Restrictive strabismus in TED remains a difficult problem and needs staged surgery to restore comfort of patient. Resection of lateral recti seems to be safe in certain cases with possible need of anti-inflammatory local steroid use. Plication would be a safer option in patient with both horizontal and vertical deviation. Prisms remain an unquestionable help for correction of remaining diplopia in patients with TED.

Strabismus – SESSION 3

Contralateral recession of the inferior oblique muscle in Grave's disease patients with Inferior rectus fibrosis with and without prior Inferior rectus recessions

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Introduction: The aim of the study was to evaluate the dose effect on vertical deviation and cyclotorsion and to assess the resulting binocular single vision after inferior oblique recession in patients with Grave's orbitopathy.
Methods and patients: Patients without (group 1; n=52) and with prior inferior rectus recession (group 2, n=10) were evaluated. Inclusion criteria was a small vertical squint angle with excyclotorsion. The median preoperativ vertical squint angle was 4° [8 pdpt] in primary position and 7,3° in adduction [14 pdpt]. Preop. Excyclotorsion was 5° [10 pdpt] in PP. The recession distance was preoperatively determined: 0,5° squint angle reduction in PP per mm recession distance [1]
Results: Inferior oblique recession generated a good field of binocular single vision (BSV) for both groups of patients (group 1 achieved 79 % BSV in PP and group 2 80 % BSV in PP). 60 % of the patients were completely diplopia free in downgaze. Squint angle reduction was in group 1 0,4 °/per mm recession distance and 0,54°/mm in group 2 in primary position. The vertical deviation side difference influenced the dose effect. Excyclotorsion was reduced to ≤2° in 40 % of the patients in group 1 and 50% in group 2.
Conclusion: Inferior oblique muscle recession can be very successfully performed at the contralateral eye in patients with inferior rectus muscle fibrosis either as a primary prodecure or as a second step after inferior rectus recession. The major advantage of this procedure is that overdosage will cause diplopia in upgaze more than in downgaze, which is much less troublesome in daily routine.

1. Eckstein, A., et al., [Contralat. Recession of the Inf. Oblique Muscle in Grave's Disease Patients with Mild M. rectus inferior fibrosis]. Klin Monbl Augenheilkd, 2015

Strabismus – SESSION 3

The impact of simultaneous correction of the V pattern on the results of surgical treatment in children with intermittent exotropia

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Purpose: This study is to investigate the impact of the coexistence of basic intermittent exotropia and vertical incomitance in the form of the V and sub-V pattern on the results of surgical correction of intermittent exotropia.
Methods: The records of 81 pediatric patients who had surgery for intermittent exotropia and a follow-up of more than 1 year were reviewed retrospectively. They were divided into groups: a concomitant group which underwent only horizontal muscle surgery of bilateral lateral rectus recession and a V pattern group which had additional inferior oblique recession, further separated into two subgroups: ≥ 15 prism diopters (classic V pattern group) and ≥ 10 < 15 prism diopters (sub-V pattern group). The surgical outcome, deviation control, stereoacuity, and postoperative drift were assessed after 3 months and 1 year postoperatively.
Results: Patients with sub-V and classic V pattern intermittent exotropia showed significantly better surgical success rate ($p = 0.025$) and less postoperative drift ($p = 0.042$) than patients without vertical incomitance. One year after surgery, successful surgical outcome was achieved in 83.72% of the vertically incomitant group: 80.76% for the classic V pattern and 88.24% for the sub-V pattern group, while only in 60.53% of nonpattern patients.
Conclusions: Patients operated for intermittent exotropia with a coexistent V pattern have consistently better surgical long-term results than those with only horizontal deviation. Additional inferior oblique recessions in the sub V pattern group provided excellent outcomes with no overcorrections; therefore, surgeons should consider addressing vertical incomitance even when the typical criteria for the V pattern are not met.

Ischaemic Optic Neuropathy: An Updated Overview

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Purpose: Diagnosis of Ischaemic Optic Neuropathy (ION) based on the latest evidence, particularly the most recent guidelines, systematic reviews, and meta-analyses.
Methods: The detection of Giant Cell Arteritis (GCA) as the cause of ION involves three diagnostic steps: firstly, clinical signs; secondly, laboratory tests; and thirdly, confirmation tests.
Results: In terms of clinical signs, ocular findings are particularly important, as up to 38% of patients diagnosed with GCA with ocular involvement may not present systemic symptoms (so-called occult GCA). Regarding laboratory tests, it is important to note that in some cases (<5%), both inflammatory parameters may be normal, and the combination of different parameters is significant. Regarding confirmation tests, there has been a paradigm shift in Europe, unlike in the USA, and temporal artery biopsy is no longer considered the only reliable method.
Conclusion: Failure to recognise GCA as the cause of ION can lead to irreversible bilateral blindness in up to 95% of cases within a few days. Therefore, it is crucial to familiarise oneself with the latest evidence.

Optic pathway glioma in NF1 – what can an ophthalmologist find?

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Objective
To analyse ophthalmic findings in neurofibromatosis type 1 (NF1) paediatric patients diagnosed with optic pathway gliomas.
Methods
Retrospective analysis of medical records of 17 patients aged 2-17 admitted to Ophthalmology Department from 2019 to 2023. All of the patients were diagnosed with NF1 and optic pathway glioma in at least one eye prior to the hospitalization. Examination consisted of visual aquity, slit lamp examination, optic coherent tomography (OCT) and visual evoked potentials (VEP).
Results
Most of the patients undergone a complete examination, in 3 cases it was impossible to obtain an OCT scan (2 due to age, 1 had very low aquity), in 1 case VEP could not be aquired (due to lack of cooperation). Visual acuity measured on Snellen charts in 6 cases was 1,0, in 6 cases 0,8-0,9 and in 5 cases lower than 0,8. In 7 patients OCT parameters were normal, in 1 only RNFL were reduced, in 6 cases both RNFL and GCC were reduced. In 2 cases the VEP was normal, in 6 cases only the amplitude of the P100 wave was decreased, in 1 case only latency was increased, in 7 cases both parameters were affected.
Conclusion
Most patients in this group had abnormal adjunct tests (OCT, VEP), even those without marked decrease in visual aquity. Such examinations are non-invasive, can be performed in small children and can give objective results to compare in follow up appointments. Ophthalmic examination should always be conducted as part of multidisciplinary care.

Mechanisms for Positive Bielschowsky Head Tilt Testing in Horizontal Strabismus

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Objective: To elucidate the induced effects of horizontal strabismus on the Bielschowsky Head Tilt. Test (BHTT).
Methods: Prospective analysis of BHTT testing in 85 patients with exotropia and 71 patients with esotropia who were examined in a strabismus clinic.
Results: Eighty-four of 85 patients with exotropia (98.82%) showed a positive BHTT with an induced hyperdeviation on the side of the tilt (to both sides in 67% and to one side in 32%). Fiftyseven of 71 patients with esotropia (80.2%) showed a positive BHTT with an induced hypodeviation on the side of the tilt (to both sides in 57.7% and to one side in 22.5%). These induced vertical deviations were greater in patients with larger horizontal deviations and in those with constant rather than intermittent deviations; however, they were not influenced by the presence or absence of associated primary oblique muscle overaction.
Conclusions: Exotropia and esotropia produce hyperdeviations during BHTT testing, with a hyperdeviation on the side of the tilt observed in patients with exotropia, and hypotropia on the side of the tilt observed in patients with esotropia. These diametrical results are not attributable to any preexistent alteration of neurologic output inherent to these two forms of horizontal strabismus or to associated torsion. Rather, they arise directly from the altered anatomical positions of the two eyes, which cause the eyes to approximate their visual axes more closely to the vertical rectus muscles (in exotropia) and the oblique muscles (in esotropia), enabling the vertical actions of specific cyclovertical muscles to predominate in response to altered utricular output generated by the BHTT.

Adaptive plasticity of the Bielschowsky head-tilt test

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Objective: We previously showed that the amplitude (vertical deviation on left-shoulder head tilt compared with that towards the right-shoulder) of the Bielschowsky head-tilt test (BHT) can be adjusted in the brainstem and cerebellum to enable single vision with the least possible head tilt. This plasticity causes large BHT amplitudes that may reduce to zero after surgery.
Methods: We studied other evidence of plasticity in BHT-positive patients. All patients were examined by orthoptists and strabismologists. Eye movements were recorded with video and search coils, and length and tension of isolated oblique muscles were measured in BHT-positive patients.
Results: Some patients with upshoot in adduction, excyclotropia and positive BHT had considerable contraction of the superior oblique muscle during surgery. Contrarily, in healthy volunteers who had one eye patched for 3 days, up- and downshoot in adduction appeared. Finally, we studied 5 patients with a dynamic BHT, all with trochlear palsy and cerebellar damage. During head-tilt a seesaw nystagmus occurred, driven by the normally occurring torsional VON and OKN.
Conclusion: These findings underline the adaptive plasticity of the BHT and the important role of the cerebellum: (1) The BHT can be positive in nonparetic uphoot in adduction, as confirmed recently by Demer using MRI to determine the existence of superior oblique palsies. (2) As first found by Viirre in monkeys, non-paretic up- and downshoot in adduction may occur in health after blocking cerebellar adaptation by occluding one eye for several days. (3) The dynamic BHT occurring in patients with trochlear palsy and cerebellar damage shows what inevitably occurs in all trochlear palsies but, apparently, is quickly corrected by the cerebellum to avoid oscillopsia.

Amblyopia, strabismus and refractive errors in severe ptosis – own experiences

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Objective
To evaluate the incidence of amblyopia and strabismus and refractive errors in severe ptosis in patients operated on in our department.
Methods
Retrospectively analysed medical records of 97 patients with severe ptosis (MRD1<0 and LF<4) who underwent ptosis surgery using frontalis sling procedure. Especially taken into consideration was the incidence of amblyopia and/or strabismus and/or refractive errors. The group consisted of 63 boys and 34 girls, aged between 15months and 17 years and 7 months (mean age was 6 years and 6 months, median age was 5 years and 6 months). Ptosis was diagnosed in the right eye in 43 cases, left in 34 and in 20 cases both eyes were affected. Ptosis associated with congenital syndromes was present in 39 (40,21%), patients – Marcus Gunn jaw-winking syndrome in 7 of them, 3rd cranial nerve palsy – 3, eye elevation deficit – 11.
Results
Amblyopia was diagnosed in 61 (62,89%) of all patients, compared to 3,6% in general population. Strabismus was present in 31 (31,96%) of all patients, compared to incidence of 1,3%-5,7% found in general population. Amblyopia and strabismus were noted in 18 (18,56%) of all cases. Refractive errors were present in 60 (61,86%) cases.
Conclusion
Patients with ptosis are at higher risk of developing subsequent amblyopia and/or strabismus and/or refractive errors than the healthy population. Early diagnosis and treatment can prevent such complications or help with faster visual rehabilitation.

Guidelines for the inhibition of myopia progression in children and adolescents of the Austrian Ophthalmological Society

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Backround:
In 2019, the Austrian Ophthalmological Society developed guidelines for the prevention of myopia. These are intended to be easy to understand and practical for practicing ophthalmologists. The current status of these guidelines is presented here.
Method:
The current peer-reviewed literature at that time was evaluated as the basis for the guidelines. Particular attention was paid to the objectifiability of potential benefits. In addition, the literature has been repeatedly reviewed since 2019 and the criteria revised.
Results:
The recommendations are shown in a diagram. Measures such as spending at least 10 hours a week outdoors, defocusing spectacle lenses, defocusing contact lenses, atropine eye drops 0.01 - 0.05% are recommended. Furthermore, regular checks of refraction in cycloplegia and determination of eye length are recommended.
Conclusion:
Children and adolescents with proven myopia progression should be treated according to current knowledge in order to inhibit myopia, in particular, to prevent the eye diseases associated with myopia.

Unilateral accommodative spasm- case report

Joanna Karaśkiewicz

Objective: to present the importance of an accurate basic ophthalmological examination
Methods: thirteen years old girl came to the ophthalmology department with blurred vison in the left eye and a headache of a forehead, with a history of fibrous dysplasia of the sphenoid bone, under regular MRI control. A basic eye examination with normal limits of both eyes, except an autorefractometer results of the left eye (without and after two time applied eyedrops paralysing accommodation) revealing a repeatable accommodative spasm
Results: controlled CT od the sphenoid bone revealed a significant narrowowing of the left superior orbital fissure and the diagnosis of SOFS (superior orbital fissure syndrome) was made with further neurochirurgical decisions.
Conclusion: a repeatable accommodative spasm was the only symptom of an impairment of a parasympathetic branch of the oculomotor nerve, caused by narrowing of superior orbital fissure.

Oculocardiac reflex in patients operated on due to strabismus - own observations

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Aim of the study: To present own observations of the occurence of the oculocardiac reflex in patiens operated on due to strabismus.
Method: 180 patients (111 women, 69 men) ages: 18 - 79 (average 48), who underwent oculomotor muscle surgery. All operations were carried out under general anesthesia by the same surgeon.
Results: The ocolocardiac reflex occured in 61 patients (34%). It required reaction from the surgeon and the anesthesiologist.
Conclusions: Surgery on the oculomotor muscles carries the risk of general complications.

Poster Session - POSTERS A

Influence of airway protection by laryngeal mask versus endotracheal intubation on PONV and postoperative delirium in pediatric strabismus surgery

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Objective. Strabismus affects around 3% of all children. In around 80% of cases, an aesthetically satisfactory result can be achieved through surgical intervention. Postoperative nausea and vomiting (PONV) is a common problem in strabismus surgery, which can lead to further postoperative complications. The aim of this study was to assess efficacy and safety of using a laryngeal mask compared to intubation anesthesia in the prevention of PONV in pediatric strabismus surgery
Methods. A total of 180 children aged 4 to 18 years were included in this randomized, controlled, double-blind, parallel-group study. A laryngeal mask airway (LAMA) was used to secure the airway in 90 patients, while an endotracheal tube (ITN) was used in the other 90 patients. Total intravenous anesthesia (TIVA) was used in all patients and prophylaxis against PONV with weight-adapted dexamethasone and ondansetron was administered. The incidence of nausea and vomiting was assessed in the recovery room and 6 and 24 hours after surgery using the POVOC score. The occurrence of postoperative acute delirium was recorded in the recovery room using the Locatelli score
Results. None of the patients developed nausea or vomiting in the recovery room. Fourteen children (9 female, 5 male - 9 ITN, 5 LAMA) showed acute delirium in the recovery room. Only 9 patients (5 female, 4 male - 4 ITN, 5 LAMA) developed nausea and vomiting 6 hours after surgery ($p = 0.25$ Fishers Exact Test). None of the patients reported nausea and vomiting 24 hours after surgery
Conclusion. Multimodal prophylaxis offers safe and effective protection against nausea and vomiting after strabismus surgery. In addition, the use of TIVA can prevent postoperative delirium. Both PONV and delirium occur regardless of the airway securing technique used

Sixth nerve palsy as a complication of treatment of arteriovenous malformation of the upper lip

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Objective: The treatment of arteriovenous malformations (AVM) remains a challenge due to the lack of clear standard treatment protocols. One approach is surgical resection, which can be used to treat AVMs of the lip with or without preoperative embolization.
Methods: The case of a patient with sixth nerve palsy in the course of treatment of a high-flow AVM in the upper lip is described. The AVM was supplied bilaterally by branches of the facial arteries. Embolization of the lesion with 95% ethanol from several percutaneous punctures of the outflow portions of the malformation was performed. Ocular complications that occurred after the procedure are described.
Results: After procedure swelling of the upper lip, cheek and eyelids on the left side was observed. The next day patient reported a diplopia that worsened when trying to look to the left, soreness and sensory disturbances in the first and second branches of V nerve. On ophthalmologic examination, findings included, swelling of the upper eyelid, elevated intraocular pressure, esotropia and limited abduction of the left eye. In the alternate prism cover test, the deviation in primary position was +45 PD L hyper 3 PD, for near +35 PD L hyper 5 PD. An angio-CT scan described heterogeneous contrasting of the left superior ocular vein, which could indicate a perfusion disorder or thrombosis. Anticoagulant, steroid and intraocular pressure-lowering therapy was instituted. After three months, the diplopia had resolved and the mobility of the left eye was determined to be -1 in abduction.
Conclusion: Early diagnosis and imaging tests help determine the cause of complications. Regular visits are important to determine prognosis. It is worth remembering the possible ophthalmic complications of treatment.

Is it always just thyroid eye disease (TED)?

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Objective: Thyroid eye disease (TED), or thyroid-associated orbitopathy, is a common orbital disorder causing characteristic symptoms. Among them are proptosis and restrictive myopathy. The frequency of its occurrence leads to the suspicion of TED in patients with orbital involvement and characteristic symptoms. This paper aims to present cases of patients in whom TED was suspected or diagnosed but who turned out to have different conditions.
Methods: A series of three cases of adult patients of the Ophthalmology Department of Poznan University of Medical Sciences were retrospectively analysed.
Results: A 73-year-old, a 54-year-old female patients and a 47-year-old male patient were consulted with the primary suspicion of TED due to proptosis and/or restrictive myopathy. The first patient was eventually diagnosed with IgG-4 related disease (IgG4-RD), the second with MALT marginal zone lymphoma and the third with myopic strabismus fixus (MSF) also called heavy eye syndrome (HES). Two patients had additional thyroid dysfunction. Two of them required strabismus surgery.
Conclusion: TED needs to be differentiated from other less common conditions, even if a patient presents symptoms typical of thyroid-associated orbitopathy. Additionally, patients may have thyroid dysfunction and other conditions at the same time.

No visibility without visibility

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Objective: The author has developed imaging methods aiming to capture nearly every ophthalmological disease with a slit lamp video console. Which part of photo documentation can be assigned to strabology in an ophthalmological primary care unit without patient selection? How can we strengthen strabology's role in ophthalmological imaging?
Methods: In the years 2006-2023, we stored a total of 151.000 videographic images in my practice's documentation system. Of those, 1.000 images were randomly selected and assigned to one of three fields: the anterior segment, the retina (with fundus lens), or a binocular overview / strabology (with a hand-held minus lens in front of the slit lamp objective).
Results: At least one videographic image was available from 11.334 of the 33.890 patients I examined during this observation period. 38% of the images reveal the anterior segment (median age 69 years), 27% the fundus (median age 69 years) and 25% binocular overviews (among them 9% oculoplastic/16% strabologic – the latter median age 10.5 years). There is a nearly equal quantity of images from the groups: 1) orthotropia (e.g., with pseudostrabismus or a positive family history for squint), 2) manifest squint without and 3) with eye-muscle surgery.
Conclusions: Strabology is extremely underrepresented in ophthalmological imaging, and its potential role in diagnostics is being seriously underestimated. A potential reason for this is that both experience with recording procedures as well as theoretical knowledge about squint are necessary. We also demonstrate that for good imaging results specific orthoptic findings need specific age-adjusted videographic strategies. Strabological imaging has great potential to be a highly rewarding field for orthoptists.

Occurrence of PHOMS (Peripapillary Hyperreflective Ovoid Mass-like Structures) in healthy young children

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Objective
The prospective study analyzes PHOMS in eye-healthy children between the age of 4 and 10 years. Previous studies investigated the occurrence of PHOMS in older children (from around 11 years). The present study aims to contribute to the understanding of the occurrence of PHOMS in young children.
Methods
Participants aged 4-10 years are examined in the study. None of them suffer an organic eye disease. Children with a refractive error and/or amblyopia due to strabismus or refractive errors are included. All patients undergo an ophthalmological examination (including OCTs of the macula and the RNFL). Additionally, an EDI-OCT of the optic disc is performed with 4 to 24 cross-sectional scans, depending on compliance. OCT-images are evaluated in relation to the presence of PHOMS, their extent, and the location around the optic nerve. PHOMS are correlated with the children's age, their refractive error and the scleral canal diameter.
Results
So far, the study has included a total of 51 patients, resp. 96 eyes, with an average age of 6.3 years ±1.8 years. PHOMS are identified in 15.63% of the eyes. Children with PHOMS are 7.0 ±1.5 years, children without PHOMS are 6.1 ±1.8 years. Regarding refraction, the spherical equivalent is determined. Eyes with PHOMS have a mean value of +0.28 ±2.91 D, eyes without PHOMS demonstrate a higher hyperopia with a mean value of +1.44 ±3.25 D. The measurement of the scleral canal diameter in children with PHOMS is 1417.87 ±160.67 µm compared to patients without PHOMS at 1482.28 ±168.20 µm.
Conclusion
PHOMS occur in healthy young children. In our study, they were identified with a prevalence of 15.46% between the age of 4 and 10 years. PHOMS were first identified at the age of 5 years. They seem to occur more often in myopic children.

Poster Session - POSTERS B

PHOMS (Peripapillary Hyper-reflective Ovoid Mass-like Structures) in patients with ODDs (Optic disc drusen)

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Objective
The prospective study aimed to analyze the prevalence of PHOMS in patients with optic disc drusen, and to correlate the appearance with the location (deep or superficial) and dimension of the drusen. Additionally, the study sought to investigate the extent to which the coexistence of drusen and PHOMS leads to clinical functional impairment and if PHOMS have an influence on the functional impairment in ODDs.
Methods
EDI-OCT (radial and horizontal) scans, visual acuity, visual field examinations, and intraocular pressure measurements were conducted on 30 patients (54 eyes) diagnosed with optic disc drusen. Subsequently, the frequency, dimension (large: > 200µm, small: <200µm) and location (superficial: above Bruch's membrane, deep: below Bruch's membrane) of PHOMS and its correlation with functional impairment were determined.
Results
PHOMS were identified in 72% of eyes with optic disc drusen (n=54). Among these, 44% were associated with deep drusen, and 56% with superficial drusen. 72% of the observed PHOMS were correlated with the presence of large drusen. Visual field defect occurred in 54%, reduced visual acuity occurred in 18%.
Conclusion
PHOMS occur in the majority of patients with ODDs. There is no strong correlation between the location of ODDs and the formation of PHOMS. Correlations between PHOMS and visual impairment will be presented.

Clinical picture of Horner syndrome

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Objective
Horner syndrome (HS) manifests by a triad of symptoms - unilateral ptosis, miosis, and anhidrosis. It is provoked by oculosympathetic pathway damage. However, the literature describes multiple cases of isolated anisocoria or ptosis as well as recurring character of symptoms. This complicates the diagnosis. To exclude or confirm HS different pharmacological tests can be used. HS could be caused by trauma, thoracic or cervical surgery, but also by life-threatening diseases like malignancies. The aim of this study was to assess the HS's clinical picture and its variations over time.
Methods
Six patients younger than 18 years old with the suspicion of HS were included to the research. In order to confirm or exclude the diagnosis test with 0.5% apraclonidine was used. Furthermore, other pediatric patients after HS diagnosis remained in follow-up to evaluate the changes of their symptoms in time. The observation time varied from 24 to 95 months.
Results
We performed the test with apraclonidine in 6 children. There were 4 patients with isolated anisocoria, and 2 with coexisting unilateral ptosis and miosis. In one of these cases the apraclonidine test was positive. Further investigation revealed birth injury as a cause of HS. All of the examined children with isolated anisocoria had negative results. There were 6 patients with diagnosed HS who were in a longtime observation. In 2 of them, the ptosis became less evident over time. Heterochromia occurred in 2 children that had HS caused by a surgery of thoracic cavity.
Conclusion
In conclusion, the isolated anisocoria rarely is a symptom of HS. Heterochromia can occur in children with HS acquired in the first year of life. The clinical image of this syndrome can change over time.

Turned upside down

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Introducing a case of a 49-year-old Patient with sudden vertigo, diplopia, anisocoria and ptosis, showing necessary examinations to get the right diagnosis.

Poster Session - POSTERS B

Observation Series: Ophthalmological Recovery after Minimal Invasive Neurosurgical (MIN)-Evacuation of Occipital Intracerebral Hemorrhages (ICH)

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Background
Intracerebral, neurosurgical lesions causing visual impairment need interdisciplinary cooperation. However, in emergency cases and complex cases with fast worsening, the routine workflow is not sufficient enough to safe visual function.
Methods
Minimal invasive neurosurgical (MIN) techniques and strategies were used to treat intracranial lesions supported by ophthalmological examinations. Workflow and cooperation were intensified to compete such problems in a group of intracranial occipital hematomas.
Results
In a series of 60 cases of intracerebral hematoma (ICH) evacuations, there were seven cases with occipital/ parieto-occipital locations causing disturbance of visual functions. We analyzed the ophthalmological findings to proof the efficiency of functional recovery by minimal invasive neurosurgery (MIN). Results and seven illustrative cases are demonstrated. Volume and depth of ICH and type of neurosurgical approaches as well as the causes of bleeding were documented. Visual recovery was able in all seven cases by close coworking of ophthalmology and MIN.
Conclusions
Usual routine of cooperation by ophthalmology and neurosurgery is often not sufficient enough to get such results. Ophthalmology plays the role of an emergency indicator. Neurosurgical-ophthalmology deals, in contrast to neurological-ophthalmology, with lesions or diseases of a good prognosis.

Strabismus 1

Dominika Nowakowska

Purpose:
To present a rare and unusual case of Y-pattern strabismus.
Case Report:
A 50-year-old male patient presented with transient diplopia and ocular misalignment. The prismatic cover test (PCT) revealed a Y-pattern deviation; however, the ocular motility did not correspond to the measurements. The clinical findings included reduced adduction in the right eye, hyperdepression in adduction (more pronounced in the right eye than the left), right ptosis, and an abnormal head posture (AHP) characterized by a chin-up position. A forced duction test was conducted, revealing mechanical restrictions in both upgaze and adduction. A differential diagnosis was proposed based on these findings.
Conclusion:
This case may represent a unique form of congenital cranial dysinnervation disorder (CCDD).

Case presentations – SESSION 9

Strabismus 2

Victor Brantl

A 12-year-old girl presented with an abnormal head posture since birth. Surgical correction was tricky.

Case presentations – SESSION 9

Paediatric 1

TITLE: severe visual impairment as a complication of avoidant restrictive food intake disorder (ARFID).

Julia Dezor-Garus, Marta Pawlak, Anna-Gotz-Więckowska

CASE PRESENTATION: The 13-year-old boy presented with eye pain and deterioration of vision. His medical history was significant for autism spectrum disorder, anxiety-depressive disorders, and eating disorder – neophobia. His visual acuity was 1,2 LogMar and 1,0 LogMar in the right and left eye, respectively. The slit lamp examination revealed: hypertrichosis of the eyelashes, keratinization of the conjunctiva, corneal punctate erosions and peripheral ulcers. Xerophthalmia was suspected and the patient was referred to the Paediatric Gastroenterology Unit for further investigation. Patient was diagnosed with multiple nutrients deficiencies including a severe hypovitaminosis A (<0,07 umol/l). After multidisciplinary treatment his general condition improved but his vision remained poor.

Case presentations – SESSION 9

Neuroophthalmology 1

Unilateral vision loss in a child admitted for strabismus surgery

Marta Pawlak, Anna Gotz-Więckowska, Agata Stodolska-Nowak, Danuta Nikratowicz

A case of 7 years old boy with unilateral vision loss admitted for planned strabismus surgery will be presented. Symptoms, signs and additional examinations will be shown. The final diagnosis of acute retinal necrosis along with differential diagnosis will also be discussed.