

*Strabizem in ostalo, Thursday, May 15 2025, 13:45-14:25*

*Location: dvorana Grandis*

**Session: Strabizem in ostalo / Strabismus and misc**

**Chairs: Nevena Kaše and Silvija Delfin**

OR-003

### **Congenital Brown and Duane syndrome – recognition and treatment**

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**Purpose:** To identify, assess clinical features and monitor patients with congenital Brown and Duane syndrome.

**Methods:** Retrospective analysis of 15 children with congenital Brown's and Duane's syndrome who were referred for diagnosis, management and therapy to the Eye Clinic in Ljubljana under the diagnosis of convergent or vertical squinting, which does not correct.

For each patient we analyzed age, gender, presence of other diseases, best corrected visual acuity (BCVA), presence of vertical and horizontal deviation, motility, angle of deviation, binocular vision and head posture.

**Results:** A total of 15 children with congenital gaze mobility disorder were analysed. The mean age at the first examination was 3.5 years (2-7 years). Brown's syndrome has been diagnosed clinically as limited active or passive elevation in adduction but normal depression in adduction. Duane syndrome was diagnosed as horizontal duction deficits, with narrowing of the palpebral fissure and globe retraction in adduction. All of the children had type 1 Duane syndrome.

The vertical deviation in patients with Brown's syndrome was from 0 to 5 degrees, the horizontal deviation in patients with Duane syndrome was between 5 and 20 degrees.

The position of the head was straight in all children. We didn't notice any tilting or turning of the head.

Visual acuity in all children was 0,8 or more without correction, none of the children had severe visual impairment in the affected eye. In 5 children glasses were prescribed after refraction in cycloplegia.

**Conclusion:** Brown's and Duane's syndromes are mechanical disorders and common forms of nonconcomitant strabismus in children.

The syndromes are not associated with poor visual acuity and are well compensated in most cases. Recognition is therefore more difficult at the beginning due to good compensation and manifests itself only when the situation changes. As long as the position of the head is normal and the child looks with both eyes (not closing the worse), they can only be observed and additional methods of treatment are not required.

### **Prirojeni Brownov in Duanov sindrom – prepoznavanje in obravnava**

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**Namen:** Prepoznavanje, ocena kliničnih značilnosti in obravnava pacientov z prirojenim Brownovim in Duanovim sindromom.

**Metode:** Retrospektivna analiza 15 otrok s prirojenim Brownovim in Duanovim sindromom, ki so bili napoteni za diagnostiko, vodenje in terapijo na Očesno kliniko v Ljubljano pod diagnozo konvergentnega ali vertikalnega škiljenja, ki se ne popravlja.

Za vsakega pacienta smo analizirali starost, spol, prisotnost drugih bolezni, najboljšo korigirano vidno ostrino (BCVA), prisotnost vertikalnega in horizontalnega škiljenja, gibljivost zrkla, škilni kot, binokularni vid in položaj glave.

**Rezultati:** Skupaj smo analizirali 15 otrok s prirojeno motnjo gibljivosti zrkla. Povprečna starost ob prvem pregledu je bila 3,5 let (2-7 let). Brownov sindrom smo diagnosticirali klinično kot omejeno aktivno ali pasivno gibljivost pri pogledu navzgor v addukciji, z normalno addukcijo v depresiji. Duanov sindrom smo diagnosticirali kot motnjo gibljivosti v abdukciji, z zožanjem očesne reže in retrakcijo zrkla pri addukciji. Vsi otroci so imeli tip 1 Duanovega sindroma.

Vertikalni odklon pri pacientih z Brownovim sindromom je bil od 0 do 5 stopinj, horizontalni odklon pri pacientih z Duanovim sindromom je bil med 5 in 20 stopinj.

Položaj glave je bil pri vseh otrocih izravnani. Nismo opazili nagibanja ali obračanja glave.

Vidna ostrina je bila pri vseh otrocih 0,8 ali več brez korekcije, pri nobenem izmed otrok ni bila prisotna težja slabovidnost na prizadetem očesu.

5 otrokom so bila po refrakciji v cikloplegiji predpisana očala.

**Zaključek:** Brownov in Duanov sindrom sta mehanski motnji in pogosti obliki nekonkomitantnega škiljenja pri otrocih.

Sindroma nista povezana s slabo vidno ostrino in sta v večini primerov dobro kompenzirana. Prepoznavanje je zato na začetku zaradi dobre kompenzacije težje in se manifestira šele, ko se stanje spremeni. Dokler je položaj glave normalen in

otrok gleda z obema očesom (ne zapira slabšega), jih lahko samo opazujemo in dodatne metode zdravljenja niso potrebne.