

Intracranial Hypertension (Pseudotumor Cerebri)

Idiopathic intracranial hypertension (IIH) in post-pubescent teenagers and adults is a disorder causing elevated intracranial pressure which occurs typically in young obese women. The etiology of this disorder is unclear, although it may be related to abnormal CSF absorption and abnormal venous drainage.

Clinical symptoms include headaches, transient visual obscurations defined as dimming of vision lasting seconds with standing up and Valsalva maneuvers, pulsatile tinnitus that goes with the heartbeat, diplopia from pseudo-sixth nerve palsy, and vision loss which usually affects the peripheral vision first and infrequently causes loss of acuity.

Triggers for IIH include recent weight gain, use of vitamin A products including isotretinoin, tetracyclines, and withdrawal from chronic corticosteroid use.

Clinical exam shows bilateral optic disc edema which may be asymmetric usually with normal visual acuity and visual fields which can range from normal to severe defects.

Differential diagnosis of optic disc edema includes papilledema from intracranial mass, hydrocephalus, meningitis. Other differential diagnoses include optic disc drusen, anomalous optic disc, anterior ischemic optic neuropathy, and anterior optic neuritis.

The modified Dandy criteria for IIH includes an opening pressure >25 mm H₂O, normal constituents in the spinal fluid without evidence of infection, MRI or CT brain without mass or hydrocephalus, and no other cause elevated intracranial pressure. If the case is atypical, a MR or CT venogram should be performed to exclude venous sinus thrombosis.

Management is based on visual function (visual acuity and Humphrey visual field) and severity of papilledema. Weight loss is recommended for all as a 5% loss has been shown to improve IIH. Patients with normal visual function and mild papilledema may not require any treatment with medications. With moderately decreased visual function, acetazolamide is used with dosing

from 1000-4000 mg daily. For patients with severely decreased or worsening visual function despite medical treatment, interventions such as optic nerve sheath fenestration, lumbar or ventriculoperitoneal shunt, or venous sinus stenting may be required. Repeat lumbar punctures are not helpful for the routine treatment of IIH since the CSF which is drained off is quickly remade.

The prognosis is typically good. Usually IIH resolves with treatment but can be recurrent or chronic. Neuro-ophthalmologists provide an important service to monitor the visual function and prevent irreversible vision loss.

All patients with headache require an initial examination of the optic disc to look for possible papilledema.

By: Thong Pham, MD

To schedule an appointment at the Kentucky Lions Eye Center, please call 502-588-0588.

Providing the Highest Level of Care for your Patients

Eye Specialists of Louisville/University of Louisville Ophthalmology has been a center of excellence for clinical eye care, treating a broad range of eye disorders from pediatric eye diseases to age-related macular degeneration. As the largest multi-specialty team of ophthalmologists in Louisville, we are at the forefront of leading-edge treatments and research in subspecialties including Retina, Uveitis, Glaucoma, Oculoplastics, Pediatrics, Cornea, Neuro-Ophthalmology and Low Vision.

Office Locations:

Kentucky Lions Eye Center
University of Louisville
301 E. Muhammad Ali Blvd.
Louisville, KY 40202
Referring Physician Line
(502) 588-0588

The Springs Medical Center
6400 Dutchmans Parkway, Suite 310
Louisville, KY 40205
Referring Physician Line
(502) 588-0588

**Old Brownsboro Crossing
Medical Plaza II
(Pediatric Only)**
9880 Angies Way, Suite 330
Louisville, KY 40241
Referring Physician Line
(502) 588-0588

Meet the Doctors



HOSSIEN ASGHARI, MD

*Cornea & Refractive
Surgery*



**CHRISTOPHER
COMPTON, MD**

*Oculofacial Plastic
& Orbital Surgery*



THONG PHAM, MD

Neuro-Ophthalmology



**DOUGLAS SIGFERD,
MD**

Retina & Vitreous



CHARLES BARR, MD

Retina & Vitreous



**HENRY KAPLAN,
MD, FACS**

*Retina, Vitreous
and Uveitis*



**APARNA
RAMASUBRAMANIAN,
MD**

*Pediatrics / Ocular
Oncology*



ANDREA SMITH, OD

Low Vision / Optometry



RAHUL BHOLA, MD

*Pediatric Ophthalmology
& Adult Strabismus*



JUDITH MOHAY, MD

Glaucoma/Cataract



HARPAL SANDHU, MD

Retina & Vitreous



JOERN SOLTAU, MD

Glaucoma/Cataract



JEREMY CLARK, MD

*Oculofacial Plastic
& Orbital Surgery*



**WILLIAM NUNERY,
MD, FACS**

*Oculofacial Plastic
& Orbital Surgery*



**PATRICK SCOTT,
OD, PhD**

Optometry



**HARRY
STEPHENSON, MD**

*Comprehensive
Ophthalmology*