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Emergencies

Neuro-ophthalmological
Lid crutches for ptosis.

Immunoglobulin and Cellcept.

Treated with Prednisone, IV.

March 1997 - Thyromectomy.

+ Tenosion test.

and generalized weakness.

May 1996 developed bilateral ptosis.

62 yr. old female.

Case #1
MRI/MRA, spinal tap - negative
August 11, 2006 - paresis LUR
RA +, deceased C3/C4
Ct scan negative.
July 25, 2006 - headache
surgery L eye
June, 2006 - uneventful cataract
May, 2006 - deceased vision left eye
Differential Diagnoses

- Diabetic third nerve palsy
- Tolosa-Hunt syndrome
- Temporal arteritis
- Could this be myasthenia
- Are new signs due...
An aneurysm presenting with 3rd nerve palsy are > 4 mm in diameter.

- Almost 90% of unruptured aneurysms will eventually cause a third nerve palsy eventually.
- 35 - 40% of aneurysms at this size cause 13-30% of oculomotor nerve palsy.
Aneurysms

- 90% of patients develop symptoms when they rupture.
- 70-80% mortality rate.
- 30% of patients do not reach the hospital.
- 33% of patients die within six months.
- 15% of patients die during the next decade.
“Non-visualization of a Large Cerebral Aneurysm despite high resolution MRA”

“Negative MRI vs. Real Disease”
Weinberg, D. Surv Oph 312, Jan-Feb, 1996.

“Third nerve palsies and angiography”
Case #2

67yr. old hypertensive male

Chief complaint - sudden painless visual loss in the right eye.

Flu-like symptoms and headaches 1 week prior to event.

Dr. Tan, 20th December
Eye Exam

- Extraocular movements - Full
- Pupils - R: Affereent, L: Normal
- 20/30 OS
- O.D. CF
- Acuity OS
Eye

One week later lost vision in the left.

Referred for temporal artery biopsy.

Prednisone 60mg daily.

Sed Rate (Westergren) – 90mm/hr

Neuropathy

Diagnosis – Ischemic Optic

Clinical Course
Clinical Course

- Biopsy
- Temporal artery
- Given for 5 days.
- Solu-medrol IV
- Hospitalized PRMC.


• Mean age of onset is 70 years.
• Rare under 50
• Incidence - 0.49 - 23.3/100,000 over 50
• Common in U.S. and Europe.
• Affects primarily cranial branches of the aorta.
• Arteries that originate from the arch.
• Systemic necrotizing vasculitis.
• Arteritis, Cranial Arteritis (Temporal)
Systemic Manifestations

- Cardiovascular symptoms
- Respiratory tract symptoms
- Jaw claudication
- Scalp tenderness
- Alterations mental status
- Constitutional symptoms
- Headache – most common symptom
Neuropsychiatric Manifestations

- Cerebral, cerebellar, brainstem
- Stroke
- Mononeuropathies or polyneuropathies
- Peripheral neuropathies
- Occur in 30% of patients with GCA.
Neuro-Ophthalmological Manifestations

- Permanent
- Transient

10-60% of patients

Visual loss
Syndrome
- Ocular Ischemic
- Hallucinations
- Visual
- Cortical Blindness
- Visual Field Defects
- Homonymous
- Optic Neuropathy
- Posterior Ischemic

Visual Loss in Giant Cell Arteritis
Craneal nerve palsies

Diplopia in Giant Cell Arteritis
Diplopia in Giant Cell Arteritis

Syndrome and a Half — INO, Skew, One

Ischemia

Brainstem
C reactive protein - odds of positive biopsy increase when CRP is above 2.45mg/dl.

High Sed Rate - 90% of patients with biopsy proven GCA.

Thrombocytosis

Normochromic normocytic anemia
Temporal artery biopsy.

CBC, Sed Rate, C-Reactive Protein

Symptoms:

Has no constitutional or systemic diplopia even when the patient has no constitutional or systemic symptoms.

Suspect the condition in any elderly patient with visual loss or diagnosis.
Treatment

- 1 g SoluMedrol IV for 3 days
- 1.5 – 2.0 mg/Kg/day

- Don't wait for biopsy.

- If diagnosis is suspected start steroids.

- Organ prevent ischemic damage in other – prevent visual loss in opposite eye

- Goal
Monitor symptoms, sed rate and CRP before lowering dose.

- Start tapering 10% of total daily dose / 1-2 weeks.
- Symptoms improve (2-4 weeks) until sed rate decrease and maintain on high dose oral steroids.

Treatment
Complications of steroids:

- 58% of patients have mayor
- Prognosis for vision loss is poor.
- Prognosis for life is good
- May remain active for 5 - 14 yrs.
- Lasts 1 - 2 yrs.
- GCA runs a self-limited course that

Prognosis
Demerol
• Saw his general practitioner – RX.

with Tylenol.
with R frontal headaches not relieved
5 days prior to his visit he woke up
duration.

Chief complaint – Diplopia of 4 days
62 yr. old male

Case # 3
A again to E.R. - Decadron 4mg q 6 hrs following day - diplopia home

DX. Migraine Rx. H/D 45 + Nubain IM D/C

Increased density in area of sella.

Ct scan head - normal. Non specific vessels of the eye

Went to ergency room - spasms in

Next day pain recurred.
Motorility – Mild weakness of RSR.

28mm Hg

Intraocular pressure – O.D. 20 O.S.

Cupping

Fundus – Asymmetric Glaucomatous

Pupils 4 mm R.T.L+3 no R.A.P.D

External exam – Mild ptosis R.U.

20/40

Visual acuity – O.D. 20/30 O.S.

Neuro-oph exam
Visuall Fields
Pituitary Apoplexy

- Promoting pituitary surgery, treatment with radiation or anticoagulation, head trauma,
  precipitating factors - preexisting pituitary macroadenoma
  preexisting swelling and infarction within a patient's
  occurs in 5-10% of untreated
Pituitary Apoplexy

Symptoms:
- Headaches, visual
- Loss, aphthalmoplegia
- Frequent misdiagnoses
- Complications
- Migraine, S AH

Hyperpyrexic coma, blindness,
Immediate referral to neurosurgeon.

- IV steroids

Treatment
Intercranial evaluation.

Impotence failed to trigger an

False negative CT finding

Migraine

Missdiagnosils of glaucoma and

neurololgic sympotoms.

Produce no obvious endocrine or

Large suprasellar tumors may

No insurance, no care.


Delayed Diagnosis, Deficient Vision and Death.

David N. Pituitary Apoplexy goes to the Bar: Litigation for
Increased Intracranial Pressure
July 11, 2001 - NLP

Visual loss

June 20, 2001 - Headaches

June 8, 2001 - Visual acuity 0.5, 20/40

May 23, 2001 - Shunted at age 2.

and hydrocephalus.

Congenital cataracts

25 yr. History of

Case # 4
Shunt Complications

- Slit ventricles
- Shunt nephritis
- Embolism
- Pulmonary hypertension and infection: 5-10%

- 50% second year
- Second failure rate 40% first year and twice
- > 70% of patients have been operated

- Shunt failures
Etiology poorly understood.

Placement after shunt one and five years.

Occurs between increased intracranial pressure.

Symptoms of 3-5% develop.

Present in CT scan.

Silt Ventricles.
Symptoms of Shunt Malfunction

- Fever
- Vomiting
- Headaches
- Lethargy
- Poor feeding
- Irritability
Midbrain Parenchyma

- Internuclear Ophtalmoplegia
- Commissure

- Dorsal midbrain syndrome - Post

- Six nerve palsy - Floor 4th Ventricile

- Hemianopsia - Optic Tract

- Cistern

- Chiasmatic Compression - Suprasellar

- Blindness - Optic Canal

Neuro-ophtalmic Complications

Of Shunt Placement

Children Treated for Internal Hydrocephalus

"Neuro-opthalmological Symptoms in

Shunt Malfunction". Chou, S. Neurosurgery
Neuro-opthalmic Complications of Raised
"Neuro-opthalmic Complications of Raised

"Shunt Failure without Ventricular
proclamed by opthalmic findings". Katz, D.


Level of consciousness
- Symptoms - loss of milestones and decreased
- Late failure (≥9 months) - 12%
  - Signs - LOC, papilledema, erythema around
  - Symptoms - irritability, nausea and vomiting
- Early failure (≥5 months) - 26%
- Ruling out malfunction remains problematic


Predicting shunt failure on the basis of clinical symptoms and signs in children. Garon, H.