Outline

1. Autism
2. Bell’s Palsy
3. First unprovoked seizure in children
4. Migraine headache
Objectives

1. To recognize the most common presenting signs in autism
2. To review current therapies available for the treatment of Bell’s Palsy
3. To understand the approach and management of first childhood seizure
4. To recognize red flags in the diagnosis of headaches
Autism

- Developmental evaluation should be performed at all well child visits.
- Red flags are social inacceptance, learning difficulties, peculiar behaviors.
AUTISM: Accepted screening tools

- Ages and Stages Questionnaire
- Brigance screens
- Child Development Inventories
- Parents’ Evaluations of Developmental status
AUTISM: Not recommended tools

- Denver II
- Revised Denver Pre-Screening Questionnaire
AUTISM: Red flags

- Babbling by 12 months
- Gesturing by 12 months
- Single words by 16 months
- Two-word spontaneous phrases by 24 months
- Loss of any language or social skills
AUTISM

- Siblings of affected children:
  1. Acquisition of social communication
  2. Play skills
  3. Maladapted behaviors
  4. Language delays
  5. Learning difficulties
  6. Anxiety, depression
  7. Social problems
AUTISM: Validated instruments

- CHAT
- Autism Screening Questionnaire
AUTISM: Evaluation

1. Audiological assessment: behavioral audiometric measures, assessment of middle ear function, electrophysiological procedures.

2. Lead screening, children with developmental delay and pica
AUTISM: Evaluation

- Karyotype and DNA analysis for Fragile X syndrome if:
  1. There is history of mental retardation,
  2. Family history of FraX,
  3. Dysmorphic features (enlarged ears, enlarged testicles, tall stature)
AUTISM: Evaluation

- Metabolic testing if:
  1. Lethargy
  2. Cyclic vomiting
  3. Early onset seizures
  4. Dysmorphic or coarse features
  5. Mental retardation
  6. Lack of newborn screening
AUTISM: Evaluation

- There is inadequate evidence to recommend EEG in autism.
AUTISM: Evaluation

- Indications for EEG:
  1. Clinical seizures
  2. Suspicion of subclinical seizures
  3. History of regression: significant loss of social and communicative function
AUTISM: Evaluation

- No clinical evidence to support the role of magneto-encephalography, routine neuro-imaging even in the presence of megalencephaly.
- Inadequate supporting evidence for hair analysis, celiac antibodies, allergy testing, immunologic, neurochemical abnormalities, vitamin levels, intestinal permeability studies, stool analysis,
AUTISM: Evaluation

Urinary peptides, mitochondrial disorders, thyroid function test or erythrocyte glutathione peroxidase studies.
AUTISM: Evaluation

- Early identification of children with autism and intensive early intervention during toddler and preschool years improve outcome for most children with autism
BELL’S PALSY

- Acute peripheral facial paresis of unknown cause.
- Unexplained unilateral isolated facial weakness
- 71 % achieve complete recovery
- 84 % achieve near normal function
- Incidence: 20 per 100,000
- 8,000 patients/year permanent facial weakness
BELL’S PALSY: steroids

- Early treatment with oral steroids is recommended as probably effective to improve facial outcome.
BELL’S PALSY: Acyclovir

- Early treatment with acyclovir in combination with prednisone is recommended as possibly effective to improve facial outcome.
BELL’S PALSY: surgery

- There is insufficient evidence to make recommendations regarding the use of facial nerve decompression.
BELL’S PALSY

- A benefit from acyclovir, steroids, or facial nerve decompression has not been definitively established. Available evidence suggests that steroids are probably effective and acyclovir (combined with prednisone) is possibly effective in improving functional outcome. There is insufficient evidence to make recommendations regarding surgical decompression.
First unprovoked seizure: FUS

- EEG is recommended for evaluation of FUS
- MRI is the preferred imaging modality
- Emergent imaging in a child with postictal focal deficit or who has not returned to baseline
Non urgent neuroimaging

- Cognitive or motor deficit of unknown etiology
- Unexplained abnormal exam
- Seizure of partial onset
- EEG that does not represent a benign epilepsy of childhood or primary generalized epilepsy
- Children under 1 year of age
Laboratory testing

- Vomiting
- Diarrhea
- Dehydration
- Failure to return to baseline
- Consider toxicology screening if there is any question of drug exposure
Lumbar tap of limited value in first nonfebrile seizure and should be considered when there is a clinical concern for meningitis or encephalitis.
Treating first seizure

- Based on risk benefit assessment
- Risk of another seizure
- Statistical risk of recurrence
- Potential consequences of a recurrence
- Consider medical issues, patient and family preference
Risk of chronic anti-epileptic therapy
Cognitive
Behavioral
Physical
Psychosocial
The majority of children with first unprovoked seizure will have few or no recurrences.

Only 10% will go on to have 10 or more seizures.

Treatment with AED after first seizure as opposed after second seizure has not shown to improve prognosis for long term remission.
However, treatment has been shown to reduce the risk of seizure recurrence.

There is no evidence about treatment with AED after the first seizure alters the risk of SUDEP in children.
Treatment with AED is not indicated for the prevention or the development of epilepsy.

Treatment with AED may be considered in circumstances where the benefit of reducing the risk of a second seizure outweighs the risk of a side effect.
Neuroimaging in the ER

- The likelihood of confirming a clinical entity or excluding an alternate cause
- The natural history of the suspected disorder and alternate differential diagnosis
- Patient follow up
- Knowledge of past history may favor performance or militate against the study
Typical febrile seizure is not an indication for neuro-imaging.

Chronic lesion found in the ER will not usually lead to acute changes.

Most life threatening conditions associated with seizures are related to hemorrhage, brain swelling or mass effect, an unenhanced CT may be all that is needed on an emergent basis.
Patients with typical febrile seizures or typical recurrent seizures related to previously treated epilepsy are unlikely to have life-threatening structural lesions. These patients do not require emergent or urgent neuro-imaging.
Migraine diagnosis

- Severe
- Unilateral
- Throbbing
- Activity worsens headaches
- Nausea
- Sensitivity to light/sound
Red flags

- Systemic symptoms
- Neurological symptoms or signs
- Onset: sudden, abrupt
- Older: new onset of progressive
- Previous headache history
- Secondary risk factors
Screen for depression

- During the past month have you felt down or bothered by little interest?
- Sleep disturbance
- Anhedonia
- Low self-esteem
- Appetite change
Headaches > 4 wk, normal PE

- Headaches > 4 weeks
- Unexplained abnormal findings
- Tension type headache
- Migraine type headache
- Any atypical feature
- Worsen with Valsalva
- Wakes patient from sleep
- New headache in older patient
- Headache progressively worsening
Red flags

- Exertion induced
- Neurological symptoms
- Maximum severity at onset
- Seizures
- Systemic illness
- Worst headache ever
- Strong family concerns
- Family history of brain tumors or aneurysm
Treatment

- Treat attacks effectively, rapidly and consistently
- Restore the patient’s ability to function
- Minimize the use of rescue medicine
- Optimize self care
- Be cost effective
- Have minimal or no adverse effects
Treatment

- Act quickly
- Use acetaminophen or NSAIDS are options for mild to moderate migraine attacks
- Use Triptans in moderate/severe cases
- Select a non oral route of administration for patients with migraine associated with early or severe nausea or vomiting
Treatment

- Do not restrict anti-emetics just to patients who are vomiting or likely to vomit.
- Use a self administer rescue medication for patients whose migraine does not respond to treatment.
- Guard against medication overuse headache (rebound headache).
- Attempt to limit acute therapy to two days per week.
Preventive medication

- Frequent headaches
- Interfering with daily routines
- Contraindication, failure, adverse effect or overuse
- Patient preference
- Hemiplegics, basilar migraine, migranous infarction
Goals

- Reduce attack frequency, severity and duration
- Improve responsiveness to treatment
- Reduce disability
- Use medication with best efficacy and less side effects
- Take coexisting conditions into account
- Start low and increase dose slowly
- Give the drug an adequate trial at an adequate dose (2-3 months)
- Avoid interfering medications
- Consider a long consider acting formulation
- Monitor the patient’s headaches by having them keep diaries
- Reevaluate therapy after 6-9 months. If headache is controlled considering tapering or discontinuing treatment