Loss of consciousness

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DEFINITION:

1. coma
2. lethary
3. delirium
4. persistent vegetative state

coma:

a state of unarousable unrespansiveness is the most profound degree to which arousal and consciousness are impaired.

LETHARGY:

Lethargy;obtundation and stupor refer to status in which arousal is somewhat lessimpaired.difficulty maintaining attention during an examination tend to fall a sleep when not stimulated and respond poorly to questions and commands.

DELIRIUM:

is a disturbance of consciousness with reduced ability to focus sustain or shift attention.

PERSISTENT VEGETATIVE:

completely unconscious but have spontaneous eye opening during cyclical periods of arousal

ETIOLOGY

Trumatic cause

Nontrumatic cause:

1-infections(meningitis,encephalitis,sevevr sepsis)

2-poisoniing and overdose

3-metabolic disorder(hypoglycemia,dka,inborn errors of metabolism)

4-seizures

5-drowning

6-ICH (due to vascular malformation or mass lesion)

7-HIE(due to cardiopulmonary arrest;arrhythmia;chd;foreign body aspiration;acute respiratory falure)

Evaluation:

coma of abrupt and unexplained onset:

ich;seizure;trauma or intoxication

gragual deterioration of mental status:infectious process;metabolic abnormality or slowly expanding intracranial mass lesion.

history of preceding headache;double vision or nausea:increase icp

slowly evolving or recurrent episodic coma:inborn errors of metabolism

a history from the caregiver inconsistant with examination :noneaccidental truma

General examination:

assessing vcital sigins and the abcs

Tempreture:

Hyperthermia:infection;inflammatory disorder;envirumental or exertional heat ;stroke;nms;status epilepticus;hyperthyroidism;

Anticholinergic poisoning

Hypothermia:

Infection in infant;drug intoxication;envirmental;exposure or

hypothyroidism

Heart rate:

tachycardia:

Fever;pain;hypovolemia;cmp;tachyarrhythmia;status epilepticus

Bradycardia:

Hypoxemia;hypothermia;increased ICP

Cushing triad:bradycardia and hypertension and irregular respiration

Respiration:

TACHYPNEA:

Pain;hypoxia;metabolic acidosis;pontine ingery

Slow irregular or periodic respiration:

Metabolic alkalosis;DKA;sedative intoxication;injury to extra pontine or Brain stem

Blood pressure:

HYPOTENSION:

Hypovolemic;septic;cardiogenic shock;intoxication or adrenal insufficiency

Hypertensien:

Pain;agitation;certain toxins(sympathomimetics;stimulants);increased ICP

Skin:

mOTTILING AND DELAYED CAPILLARY REFILL:

Shock state

Bruising:traumatic injury

Petechial and purpuric rash:

Meningococal infection

Jaundice:

Hepatic encephalopathy

Cherry red appearance:

CO poisening

Funduscopy:

Papilledema:

increased ICP

Retinal hemorrhages:

Shaken baby syndrome

NEUROLOGICAL EXAM:

1-GCS

2-pupil

3-brain stem reflex(pupillary reflex to light,extraocular movement,corneal reflex)

4-motor response

Puoil:

Anisocoria:

Brain stem insult or supratentorial lrsion

Small reactive pupil:

Metabolic disorers or intoxication

Bilaterally fixed pupil;either midposition or dilated:

Sever afferent defects but most often seen with brain stem insults;sympathomimetic and anticholinergic drgs

DIAGNOSTIC STUDY:

LAB TEST:

All pationts presenting with altered consciousness should undergo a rapid

Bedside test for blood glucose and basic laboratory testing including:

Serum electrolytes;ca;mg;bs

ABG or VBG

Liver function test;ammonia

CBCdiff

bun/cr

Urine and serum toxicology screening

Blood and urine cultures

NEUROIMAGING:

CT SCAN:

Best initial neuroimaging test for rvaluating a child in unexplained COMA

MRI:

If normal ct scan;lab data MRI can be helpful

Lp:

When there is suspected infection of cns:

Urgent LP

EEG:

Should be performed in children with coma of unknown etiology

emergent evaluation and manaeg ment in children:

Evaluation:

1-vltal signs and general and trauma examination

2-Neurologic examination and GCS

3-Finger stick blood glucose

4-ABG OR VBG

5-Screening lab data(cbcdiff;glucose;electrolytes;bun/cr;BC;UC;LFTS;UA; Urine screen)

6-Head CT scan

7-LP if fever or elevated WBC

EEG possible NCSE 9-Brain Mri with DWI

MANAGEMENT:

- ABCS
- GCS<8 or respiratory falure:intubation
- Stabilize cervical spine
- Supplement O2
- IV access
- BP support
- Treat hypoglycemia:Dextrose .25 GR/KG(2.5 CC/KG of 10%DEXTROSE)
- Treat seizure
- Empric antibiotic for suspected infection(ceftriaxon100 MG/KG max dose single dose2 gram and vancomysin and acyclovir)

For suspected ingestion:

naloxane .1mg/kg iv

For suspected increased ICP:

MannitoL .5 TO 1 GR /KG IV or

Hypertonic salin 3% 5CC/KG

Elevate head and keep midline

for susoected ncse:

Lorazepam .1MG/KG MAX 4 MG

Fosphenytoin 10-20 PE/KG

TREATMENT POISENING

TREATMENT INCREAD ICP:MANITOL,HYPPERTONIV SALIN,ELEVATE HEAD

SUSPECTED NCSE:

LORAZEPAM

FOSPHENYTOIN

Thank you for attention

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