Prevention and Management of post Stroke complications

WHY ?

The Stroke is only the start…

Disclosure

- I have no relevant financial interest, arrangements or affiliation with any of the products mentioned during this presentation.
- In relation to this presentation there are no conflicting interests to disclose.

How

- **Prevention**:
  - Pathways, Standard order set, dedicated nursing
- **Diagnosis:** High index of suspicion, raised awareness of common complications
- **Early Treatment:** complication specific and aggressive
- **Care and outcome improve with specialized multidisciplinary Stroke Unit**

Common – to be avoided!

- Hypoperfusion
- Fever
- Hyperglycemia
- Hypoglycemia

Complications post Stroke

- Neurologically:
  - Recurrent Stroke
  - Seizure
- Infection
  - Urir[illegible] trac[illegible]
    cor
  - Pneu[illegible]

  with 25% death[illegible] month
- Complication of immobility :
  - Falls
  - Pressure ulcers
- Thromboembolism

AVOID FOLEY CATHETER

RAISE HEAD OF THE BED

- Psychological:
  - Depression
  - Emotionalism
  - Anxiety
  - Confusion

Mortality

- Week 1: 90 % direct related to Infarct
  - Edema, Extension, Rebleed, Herniation
- Week 2-4: Pulmonary embolism & DVT , Infections
  - Risk remains high for 3 months
- Weeks 8-12: Bronchopneumonia, heart disease

Seizures

- Up to 8.6% of all Stroke patients
- Often partial with potential to secondary generalization
- 7.1 % inhibitory seizure mimics TIA symptoms
- Early seizures in 3.5% most occurring within 24hours
- More common in severe disabling stroke, with cortical involvement, and hemorrhagic stroke

Neurology, Jan31, 2014 Jimming Fan et al

large Multicenter study 10261 patients

Seizures

- Exclude other reasons, determine cause
  - Recurrent stroke, hemorrhagic transformation
  - other underlying brain pathologies
- General causes of seizures to consider:
    - ETOH withdrawal
    - Drugs including, anti-epileptic drug withdrawal
    - Electrolyte imbalance, especially in renal disease
    - Hypocalcemia
    - Hypomagnesemia
- EEG is beneficial in non convulsive seizures for assessment.

Who to treat and How long?

- Early onset seizure recurrence rate 16%
  - But increase in-hospital mortality
- Late onset seizure reoccurrence 50%
  - Promote vascular cognitive impairment
  - Increases disability
- In early onset seizure discontinuation of treatment can be considered after a few months

Treatment:

- Initial: Lorazepam and Dilantin load initially THEN
- Discussion with neurology suggested
- Drugs
  - Classic: Carbamazepine, Ethosuximide, Phenobarbital, Primidone, and Valproic acid
  - newer: Lamotrigine, Levetiracetam(Keppra), Lacosamide (Vimpat), Topiramate (Topamax), Gabapentin, Pregabaline
- No Guidelines! Drug choice guided by medication interaction, patient profile and physician preference

Emotions post Stroke

Psychological complications

- Acute phase:
  - Overt sadness 72%
  - Disinhibition 56%
  - Lack of adaption 44%
  - Environmental withdrawal 40%
  - Crying 27%
  - Anosognosial passitivity 24%

- A third of patient have poor memory or no memory of event

Stroke location and emotional implication

- Strong correlation with aphasia and left insular location: 66% of these develop depression later in chronic stage

- Acute psychosis seen in left PICA Infarct

- Left frontal Stroke, Basal ganglion lesion:
  - Post Stroke depression 40%
  - Anxiety disorder 25%

Summary

- Be proactive!
- Admit to Stroke unit!
- Early recognition and treatment of complications
  - Improve recovery +
  - overall outcome
  - The difference between life and death

Thank you for your attention!

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