

Seizures

Paramedic case studies #8

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Past history

You are attending a 17 year old man who has a past history congenital brain injury. His parents provide home care for him for which in particular he has regular seizures. This includes sometimes multiple seizures in one day and occasionally continuous seizures. His parents can administer buccal midazolam.

Today

He has had two seizures already today but both self terminated. Now his parents have administered midazolam for a continuous seizure but it has not had any effect.

On examination

CNS GCS=3 nil eyes open to pain (1) nil verbal (1) and nil response to pain L=R (1) generalised seizure activity still in progress, eyes twitching
CVS flushed warm clammy P=100 BP=110/70
Resp 10min stridor audible with shallow effort, on ausc chest clear L=R.
ECG sinus rhythm
Pulse oximetry unable to get a reliable reading
BSL 4.8mmol/L

Working assessment

Continuous seizure

Management

Discuss criteria for tonic (short lasting, stiffening) versus clonic (generalised convulsion). Discuss other elements including difference between seizure (brain) and convulsion (muscle shaking).
Discuss other criteria including aura and post-ictal
Discuss history taking to understand past seizure episodes and how they are terminated to help predict this episode. Discuss difficulty assessing patient including vital signs – still must be done
What position to place patient? –likely lateral, protect head/limbs
Airway – what options if needed. Discuss lateral position, OPA difficulties and NPA benefits if needed
Oxygen – is it needed? Likely yes given increased brain and muscle activity
Body temperature – patient may be hot from seizure. In some cases fever might be the cause of seizure activity
Hypoglycaemia – rule out as possible cause of seizure
Anticonvulsant – IM midazolam, dose? Any complications – resp depression, hypotension, sedated and delayed return to consciousness. What role is there for IV midazolam? What dose?
What to do if seizure stops? If it does not? If it stops but patient does not wake up again – could be sedated, could be still seizing but with no visible convulsion activity

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