Objectives

1. Define key terms introduced in this chapter.
2. Describe the various ways that seizures can present (slides 11-13).
3. Discuss the pathophysiology of seizures (slides 14-15).
4. Explain the concerns associated with prolonged or successive seizures (slides 14-15).
5. Describe the assessment and emergency medical care of patients with tonic-clonic, simple partial, complex partial, absence, and febrile seizures (slides 16-28).
6. Anticipate bystander reactions to patients having seizures and take measures to stop unnecessary or inappropriate interventions (slide 32).

Objectives

7. Describe the assessment and emergency medical care of patients in a postictal state (slide 30-37).
8. Describe the assessment and emergency medical care of patients who are unresponsive, actively seizing, or in status epilepticus (slides 30-37).
9. Recognize situations in which the patient who is having or has had a seizure must be a higher priority for transport (slide 37).
10. Discuss the role of blood glucose determination in patients who have had a seizure (slide 34).
11. Discuss relevant questions to ask while gathering a history of the seizure activity (slide 34).
Objectives

12. Describe common causes of syncope.
13. Describe the scene size-up, assessment, and emergency medical care of patients with syncope, including differentiating syncope from seizure.

Multimedia Directory

Slide 13  Seizures and Epilepsy Video
Slide 18  Tonic-Clonic Seizures Video
Slide 23  Partial Seizures Video
Slide 26  Absence Seizures Video

Topics

- Seizure
- Syncope
CASE STUDY

Dispatch

EMS Unit 106

Respond to Southern Park Mall, main concourse, for a 23-year-old female who is seizing.

Time out 1717

Upon Arrival

• First Responders indicate it is safe to enter
• Crowded mall due to craft fair
• Find patient supine and actively seizing
• First Responder protecting the patient's head
How would you proceed to assess and care for this patient?

Seizure

- Seizure
- Convulsion
- Epilepsy
- Generalized tonic-clonic seizure
- Postictal state
Seizures and Epilepsy

Click here to view a video on the topic of seizures and epilepsy.

Back to Objectives

Pathophysiology of Seizures

Back to Objectives

• Primary seizures
  – Generalized
  – Partial
• Secondary seizures
• Status epilepticus
Types of Seizures

Generalized Tonic-Clonic (Grand Mal) Seizure

- Aura
- LOC
- Tonic phase
- Hypertonic phase
- Clonic phase
- Postictal state
- Emergency care

Tonic-Clonic Seizures

Click here to view a video on the topic of tonic-clonic seizures.

Return to Directory
Types of Seizures

Simple Partial Seizure

• Simple partial seizure
• Presentation
• Emergency care

Types of Seizures

Complex Partial Seizure
Partial Seizures

Absence (Petit Mal) Seizure
Absence or petit mal
- Presentation

Absence Seizures

Click here to view a video on the topic of absence seizures.

Return to Directory

Types of Seizures

Febrile Seizure
• Cause
• Ages
• Emergency care

Assessment-Based Approach to Seizure Activity

Scene Size-Up

• Signs of injury
• Protect from further injury
• Do NOT restrain a seizing patient
• Patient may refuse transport

Back to Objectives
Assessment-Based Approach to Seizure Activity

Primary Assessment

• Assessing in the postictal state
• Assessing unresponsive patient
• Transport priority circumstances

Secondary Assessment
Secondary Assessment

- Head-to-toe assessment
- Vital signs
- BGL
- History
- Medications

Signs and Symptoms

- Convulsions
- Rigid muscular contraction
- Excessive saliva
- Urinary/bowel incontinence
- Chewing movement

Assessment-Based Approach to Seizure Activity

Emergency Medical Care and Reassessment
Primary Assessment
- Patient's sister is on scene
- Patient is still seizing
- Patient has history of seizures; sister assisted patient to ground
- First Responder opening the airway
- RR: 18, irregular and shallow; P: 110

Primary Assessment
- Seizure abruptly stops
- RR: now 20 and regular; P: 110; skin warm and moist

Follow-Up
CASE STUDY
Secondary Assessment
- Patient becoming more oriented
- States seizure was not unusual for her
- A: none
- M: Tegretol
- P: none other than seizures
- L: one hour ago
- E: walking in the mall when she sensed the aura

CASE STUDY
Treatment and Reassessment
- Patient refuses transport
- Contact medical direction
- Document history and physical exam
- Patient and sister sign refusal form

CASE STUDY
Treatment and Reassessment
- Reassess vital signs
- Advise patient to contact 911 if she experiences another seizure
Critical Thinking Scenario

• 34-year-old male struck in the head by a falling brick at a construction site
• As you arrive, the patient is having convulsive-type movement
• You note obvious trauma to the head
• Blood and vomitus are coming from his mouth

Critical Thinking Scenario

• Radial pulse is 142 bpm
• Skin is moist and warm
• Cyanosis is noted to the nail beds
• No other injuries are noted

Critical Thinking Questions

1. How would you manage the airway in this patient?
2. Would spine injury management be a consideration?
3. What type of seizure do you suspect the patient is experiencing?
4. What do you suspect is the cause of the seizure?
5. What emergency care would you provide for the patient?
Reinforce and Review

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