Understanding Post Traumatic Epilepsy -1166 words

Post-traumatic epilepsy is a seizure disorder that develops following a brain injury. The risk of post-traumatic epilepsy rises with the severity of the injury.

While post traumatic seizures are always a risk following a brain injury, not every person who has a seizure following a head trauma will go on to develop post traumatic epilepsy. Severe head injuries, that is, head injuries serious enough to require hospitalization, result in epilepsy in 15 percent of adults and 30 percent of children. In cases of penetrating trauma, such as gunshot wounds, the incidence is even more frequent: 25 to 50 percent of people with these injuries will go on to develop epilepsy. Furthermore, the risk of developing post traumatic epilepsy also depends on when the seizures start.

Early post traumatic seizures are seizures that occur during the first week following the injury. If a person develops early post traumatic seizures, he may not go on to develop post traumatic epilepsy, or recurrent seizures. While having an early seizure will increase the risk of further seizures later on, it is more common that the person will never have another one. About 25 percent of people who have a seizure in the first week will have another one at a later time.

Late post traumatic seizures are seizures that occur one week or more after the injury. They may take years to develop, sometimes occurring for this first time 20 years later. Unlike with early post-traumatic seizures, people who have late post-traumatic seizures are likely to have more seizures. 80 percent of people who have a seizure later than one week after being injured will have more seizures. They are almost always considered to have post traumatic epilepsy and are started on anti-convulsants to prevent future seizures. Doctors believe that late post-traumatic seizures may be the result of the brain repairing itself and establishing new connections.

There are two types of seizures: focal (partial) and general seizures.

Focal seizures

Also called partial seizures, focal seizures occur due to disruptions in the neural activity in one part of the brain. They are usually described in terms of the portion of the brain from which they come. For example, one might be diagnosed with left parietal lobe seizures. There are two types of focal seizures: simple and complex.

In simple focal seizures, the person is conscious but experiences sudden, uncaused and intense shifts in emotions and mood. They may also experience nausea. Additionally, the person may have hallucinations that affect all five senses.

Complex focal seizures are characterized by states of altered consciousness. The person having a complex focal seizure may engage in odd and repetitious behavior, such as walking in a circle, blinking repeatedly or twitching. These behaviors are called automatisms. Sometimes, the behavior may seem purposeful. The person may continue with the task in which they were engaged before the seizure, such as washing the same dish over and over, without actually cleaning it.

Focal seizures don't last very long- they are over in mere seconds. The person may not even be aware that anything happened. Some people with focal seizures experience an "aura" beforehand – a strange sensation that signifies an impending seizure. These auras are merely seizures during which the person stays aware.

General seizures

Generalized seizures result from abnormal nerve cell activity on both sides of the brain. These seizures often result in a loss of consciousness, falls and muscle spasms. They are what most people picture when they hear the word epilepsy. There are two types of general seizures: absence and tonic-clonic.

Absence seizures

Absence seizures are characterized by the affected person staring off into space. He may also have jerking or twitching muscles. Absence seizures are also called petit mal seizures. They are brief, lasting only a few seconds, and the person isn't usually aware of the episode. They are more common in children between the ages of 4 and 12. They usually go away by age 18 and rarely start after age 20. It is extremely rare for people with post traumatic epilepsy to have this type of seizure.

Tonic-clonic seizures

Tonic-clonic seizures are seizures with two phases: the tonic phase and the clonic phase. Tonic-clonic seizures are also known as grand mal seizures. The tonic phase usually occurs first. The muscles of the body contract during this phase, and the person loses consciousness. The back arches, and due to the fact that the chest muscles have contracted, the person has difficulty breathing. The lips and face may turn blue from the diminished oxygen supply. Following the tonic phase comes the clonic phase where the limbs, including the person's neck, start to jerk rapidly. As the seizure winds down, the jerking slows and eventually stops. The person may emit a deep sigh before beginning to breathe normally again. Following the seizure, the person will fall into a deep sleep.

Risks

People with a seizure disorder, whether acquired through an injury or not, are at an increased risk of premature death. This risk arises from two secondary conditions relative to their epilepsy: status epilepticus and sudden unexplained death.

Status epilecticus

Status epilepticus is a life threatening condition in which a person has a seizure that lasts for longer than five minutes, or has more than one seizure in quick succession, and without a recovery period between episodes. Status epilepticus is a medical emergency. Doctors will use different medications to stop the seizures, including paralytics, sedatives and anti-convulsants.

Sudden unexplained death

For reasons that no one knows, people with epilepsy are at risk of dying from no discernible cause. They just die and medical science can't figure out why. While anyone may die suddenly and for no known cause, the risk in people with epilepsy is twice that of the general population.

What to do in case of a seizure

The main thing to do if you see someone having a seizure is to make sure that the person's airway is clear. Roll them on their side so that they don’t choke on their own spit or vomit, loosen any tight clothing, especially around the neck, and make sure that they won't hurt themselves by hitting something in the throes of the seizure. Do not attempt to pry open the mouth or place anything inside. There is no danger of the person swallowing their tongue; that's a myth.

If this is the person's first seizure, if you don't know whether or not they've had a seizure before, or if the seizure doesn't stop after five minutes, call 911. Note how long the seizure lasts and what it looked like so that you can tell the doctor or emergency staff about it, if needed. Stay with the person until help arrives.

Post-traumatic epilepsy is common following a severe head injury. It results in repeated seizures caused by disruptions in the neural activity of the brain. It is a life-long condition which can be managed medically. Most people with post-traumatic epilepsy are kept seizure free and lead normal lives.

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