

Tackling brain injuries at ETU

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Emergency Departments of hospitals across Sri Lanka receive a large number of patients with brain injury daily and the manner in which these crucial cases are tackled vary depending on the scenario.



“Any injury to the skull bone and its contents is considered as brain injury and can result in death, permanent weakness, disability or paralysis. The main causes of brain injury include motor vehicle accidents, falls, assaults and sports related injuries. As far as the relative frequency is considered, head injury from motor vehicles are far less in developed countries due to vehicle and road safety measures where falls of elderly people are more common. In Asian countries, including ours, we see a vast number of head injuries due to road traffic accidents often related to alcohol,” explains Dr Nilaksha Kumarasinghe MBBS, MS, MRCS(ENG), FCSS, Consultant Neurosurgeon, Teaching Hospital Kurunegala.

Presentations following brain injury, vary

“Most of the patients with possible head-injury present to us following trauma; falls, accidents, impaired level of consciousness, limb weakness etc. In certain cases, there might not be any physical signs suggestive of head trauma, but following an extensive history taking and examination, doctors will find out the possibility of a brain injury and likely causes.

At emergency departments our main motive is to identify immediate life threatening injuries like obstruction to the airway affecting breathing, blood loss etc in order to attend to them quickly and initiate treatment without a delay”

Depending on the conscious level, head injuries are categorised into mild, moderate and severe.

Treatment modalities

“Depending on the CT scan findings, neurosurgeon will decide if the patient needs surgery.

In fact, bleeding inside or outside the brain within the skull will need surgical removal of the blood clot and termination of further bleeding. Brain is very sensitive to slightest injury and will start swelling if it’s disturbed, resulting in increased pressure inside the skull. This can be fatal if left untreated. In such situations doctors will decide to remove a part of the skull bone and open the coverings surrounding the brain to accommodate swelling,” highlights Dr Kumarasinghe.

If the damage is only to the skull it will be surgically repaired and if there is no indication for immediate surgery, patient can be observed for any deterioration of the condition or development of neurological signs and addressed accordingly. Additionally, medications to prevent brain from swelling, seizures, bloodclot formation in legs (DVT), painrelieving drugs, antibiotics, gastric ulcer prophylaxis are used as indicated.

Complications

Complications of brain injury depends on the severity and the area affected. Patients with reduced conscious level can experience problems including,

Chest infections, bedsores, nutritional deficiencies

- Seizures , confusion, impaired memory and intellectual ability.
- Difficulties in speech, understanding spoken and written language, hearing impairment, weakness of one side of the body, unsteadiness.
- Increased risk of clot formation in legs
- Electrolyte imbalance
- Generalized body stiffness

All these can be addressed effectively through early diagnosis and right medical and surgical interventions.