Understanding acute ischemic stroke: Causes, symptoms, and treatment.

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Abstract

Treatment of Acute Ischemic Stroke (AIS) consists of a multidisciplinary approach that more than ever requires the involvement of critical care professionals. Prior to the 1990s, treatment options for AIS were limited and focused primarily on symptomatic treatment, secondary prevention, and rehabilitation. Since then, the entire region has been revolutionized by her two big launches. Based on groundbreaking research by the National Institute of Neurological Disorders and Stroke (NINDS), the first breakthrough innovation to dramatically change the treatment of acute stroke was the introduction of IV tissue by the U.S. Federal Drug Administration in 1995. Approval of plasminogen activator (IV-tPA). 1. IV-tPA remained a mainstay of therapy for nearly two decades until 2015, until more advanced clinical trials showed robust results for endovascular therapy (EVT) 2. In the ICU, additional strategies to optimize patient physiology can coordinate triage and/or revascularization with discharge to rehabilitation.

Keywords: Clonidine, Dexmedetomidine.

Introduction

Acute ischemic stroke, also known as a "brain attack," is a sudden loss of brain function due to a blockage or clot in a blood vessel supplying the brain. The blockage deprives the brain of essential oxygen and nutrients, causing the death of brain cells and leading to a wide range of potential symptoms [1].

Causes of Acute Ischemic Stroke

The most common cause of acute ischemic stroke is a clot in an artery leading to the brain, known as an embolism. The clot can form in other parts of the body and travel to the brain, or it can form directly in a blood vessel in the brain. Other causes of acute ischemic stroke include stenosis (narrowing of an artery) and thrombosis (formation of a clot within a blood vessel) [2].

Symptoms of Acute Ischemic Stroke

Symptoms of an acute ischemic stroke may vary depending on the size and location of the affected brain area, but they usually appear suddenly and without warning. Common symptoms include:

Numbness or weakness in the face, arm, or leg, especially on one side of the body

Confusion, difficulty speaking or understanding speech

Problems with vision, such as double vision or temporary loss of vision in one or both eyes

Dizziness or loss of balance or coordination

Severe headache

Difficulty swallowing [3].

Treatment of Acute Ischemic Stroke

The treatment of acute ischemic stroke must be prompt and effective in order to minimize brain damage. The first step is to call 911 or get to the hospital as soon as possible. There, the stroke team will evaluate the patient, determine the type and cause of the stroke, and initiate the appropriate treatment.

Treatment options for acute ischemic stroke may include:

Thrombolytic therapy: This involves using drugs to dissolve the blood clot causing the stroke.

Mechanical thrombectomy: This is a procedure in which a specialized catheter is used to remove the clot from the affected blood vessel.

Antiplatelet and anticoagulant medication: These drugs help prevent the formation of new clots and reduce the risk of recurrent stroke.

Rehabilitation: This may include physical therapy, speech therapy, and other forms of rehabilitation to help patients recover as much function as possible [4].

Acute ischemic stroke is a serious and potentially life-threatening condition that requires prompt recognition and treatment. If you suspect that you or someone you know is having a stroke, don't wait. With proper treatment and rehabilitation, many patients are able to make a good recovery and regain much of their lost function. Acute ischemic stroke

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is a sudden loss of brain function due to a blockage or clot in a blood vessel supplying the brain. The most common cause is an embolism, a clot that forms in another part of the body and travels to the brain. Symptoms may include numbness or weakness on one side of the body, confusion, vision problems, dizziness, severe headache, and difficulty speaking or swallowing. Treatment options include thrombolytic therapy, mechanical thrombectomy, antiplatelet and anticoagulant medication, and rehabilitation. It is crucial to seek prompt medical attention if you suspect a stroke, as timely treatment can minimize brain damage and increase the chances of a good recovery [5].

Conclusion

In conclusion, acute ischemic stroke is a serious and potentially life-threatening condition that requires prompt recognition and treatment. By understanding the causes, symptoms, and treatment options available, individuals can be better prepared to respond in the event of a stroke. It is important to remember that the quicker a person receives treatment, the better their chances of minimizing brain damage and making a full recovery. Therefore, if you suspect a stroke, don't wait and seek medical attention immediately. By working closely with healthcare professionals and following a personalized rehabilitation plan, many patients are able to overcome the challenges posed by an acute ischemic stroke and regain their independence and quality of life.

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