



Case Report

Stroke in a 16-Year-Old and the Importance of Early Intervention

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Abstract

This case report discusses the rare occurrence of stroke in a healthy 16-year-old male, highlighting the critical importance of rapid assessment and early intervention. The patient presented with right-sided weakness and expressive dysphasia, leading to timely thrombolytic treatment and significant recovery.

Introduction

Stroke in young individuals is uncommon but can occur, presenting unique challenges in both diagnosis and management. This report outlines the case of a 16-year-old male who experienced a stroke, emphasizing the necessity of recognizing stroke symptoms in this age group and the importance of quick action.

Case Presentation

A previously healthy 16-year-old male was brought to the emergency department after developing sudden right-sided weakness and facial droop while watching a football game with friends. He had no significant past medical history and was not taking any long-term medications. His social history indicated occasional drinking during holidays.

As the symptoms began, the patient became non-verbal but did not experience any collapse, loss of consciousness, or seizures, as confirmed by his friends. Initial assessments showed that he could attempt to lift both his leg and upper body, although with noticeable stiffness. His friends denied any recreational drug use.

The patient was only able to respond to questions with yes or no answers, requiring considerable concentration. He reported having a headache but denied dizziness, sensory changes, chest pain, shortness of breath, abdominal pain, nausea, or vomiting.

On examination, he exhibited severe expressive dysphasia, mild right facial droop, and dense weakness in both the upper and lower

right limbs. Sensation was reduced on the right side, while eye movements were normal. His National Institutes of Health Stroke Scale (NIHSS) score was 16.

A CT scan suggested a possible dense left Middle Cerebral Artery (MCA) occlusion.

Treatment and Management

The timeline for his treatment was crucial: symptoms started at 14:10, he arrived at the hospital by 15:46, the CT scan was done at 16:03, and thrombolysis was initiated at 16:42. CTA confirmed a short occlusion in the left M1 segment. Following informed consent, the consultant proceeded with thrombolysis. After treatment, a repeat NIHSS assessment showed significant improvement, with a score of 5. The case was discussed with the Royal London Hospital, which recommended local management given the patient's improvement.

Further investigations included blood tests for thrombophilia screening and Patent Foramen Ovale (PFO) diagnostics. Cardiac function was monitored with telemetry. The patient received advice on gradually returning to activities, including sports and school, and was instructed to monitor symptoms closely and return if they worsened.

Concerns were raised about pediatric versus adult treatment protocols, and reassurance was provided that thrombolysis is approved for individuals aged 16 and older.

Upon discharge, he was prescribed 300 mg of aspirin, as there were no signs of post-thrombolysis hemorrhage. His symptoms improved significantly, allowing for discharge with a plan for two antiplatelet medications for three weeks, transitioning to long-term clopidogrel. A follow-up appointment was scheduled for four months later.

Discussion

This case highlights the rarity of stroke in young patients and the critical need for early recognition of symptoms. The initial presentation of right-sided weakness and expressive dysphasia required prompt evaluation and intervention. The positive outcome underscores the importance of timely thrombolysis in this age group.

This situation also emphasizes the need for increased awareness among healthcare providers and the public regarding the possibility of stroke in adolescents and young adults. Early recognition and intervention can significantly reduce the long-term impact of strokes in this demographic.

Conclusion

This case report illustrates the importance of rapid assessment and intervention in managing stroke in a young patient. Greater awareness of stroke symptoms among adolescents can facilitate timely treatment and improve outcomes.