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# A CASE-BASED ANALYSIS OF INDIVIDUALISED TREATMENT IN ISCHAEMIC STROKE

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**Introduction.** An ischaemic stroke occurs when a blocked cerebral artery limits blood flow, resulting in neurological abnormalities such as paralysis, speech difficulty, and visual alterations. Significant risk factors include hypertension, diabetes, and smoking. The diagnosis is based on imaging, with CT ruling out haemorrhage and MRI evaluating infarcts. Treatment options include thrombolysis within 4.5 hours, mechanical thrombectomy for major occlusions, and long-term prophylaxis using antiplatelets, statins, and lifestyle modifications. However, care frequently necessitates tailored adaptations based on patient comorbidities and resource availability.

**Aim of the study.** This study will investigate the importance of individualised care in ischaemic stroke by examining instances in which conventional treatment guidelines were changed based on patient-specific characteristics such as comorbidities, contraindications, and diagnostic constraints.

**Materials and methods.** This study examined 2023 patient case reports from the Grodno University Clinic, focussing on ischaemic stroke symptoms, comorbidities, and treatment restrictions. It emphasises the importance of individualised care based on patient-specific characteristics.

**Results and discussion.** Patient A suffered a minor cardioembolic stroke (NIHSS 5) with partial sensory aphasia and pyramidal insufficiency. Aspirin, antihypertensives, and physiotherapy were used to manage the condition. Anticoagulation was considered after additional assessment.Patient B suffered a mild

atherothrombotic stroke (NIHSS 8) with left-sided hemiparesis, significant comorbidities (CAD, CHF, diabetes, obesity). Antiplatelet treatment, statins, antihypertensive medications, and neuroprotection were started. Rehabilitation centred on functional rehabilitation.Patient C had mild hemiparesis (NIHSS 5-8) with ICA occlusion, atherothrombotic infarction, and cardiovascular comorbidities. Clopidogrel, statins, heart rate management, and antihypertensive medications were used to manage the condition. Carotid stenting was suggested after additional imaging.Patient D suffered a severe infarction (NIHSS 15), which included hemorrhagic transformation, respiratory distress, and significant ICA stenosis. Treatment included neuroprotection, anticoagulation, blood pressure control, and infection management.Patient E suffered from progressive ischaemia, carotid and iliac artery stenosis, coronary disease, and severe pneumonia. Antithrombotic treatment, respiratory support, and a possible neurosurgical intervention were all scheduled.

**Conclusion.** Management of ischaemic patients, demands a multidisciplinary approach. Key symptoms include neurological abnormalities like hemiparesis and dysarthria, respiratory difficulties like pneumonia, and cardiovascular problems including coronary heart disease and hypertension. Imaging investigations, particularly CT scans, indicate major ischaemic changes, which inform treatment recommendations.The first treatment focusses on pharmaceutical therapies, such as antiplatelet medication, antihypertensives, and lipid-lowering medicines. Supportive care is essential, while monitoring vital signs and neurological condition.Rehabilitation begins early, with physical and occupational therapy.Potential risks include increased intracranial pressure, respiratory failure, and thromboembolic events, which require close monitoring.The ultimate therapeutic aims are to stabilise neurological state, maintain blood pressure, avoid complications, and improve functional recovery through integrated care. Continuous follow-up and multidisciplinary communication are critical to improve patient outcomes and quality of life.

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