Endovascular thrombolytic therapy in acute ischemic stroke patients with current malignancy

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Backgrounds & Purposes: Cancer causes a hypercoagulable state, increasing the risk of thromboembolic events including acute ischemic stroke. The safety of reperfusion treatment for acute ischemic stroke in patients with cancer is not well established. Intravenous thrombolysis appears to be safe in patients with cancer. There are no previous detailed reports of endovascular thrombolytic therapy in this population. We investigated the outcomes of endovascular reperfusion treatment for acute ischemic stroke patients with current malignancy. Methods: We have recruited acute ischemic stroke patients with active cancer who were treated with endovascular therapy between 2011 to 2014 from stroke registry of Chonnam National University Hospital. Baseline characteristics, radiological findings and clinical outcomes were analyzed. Results: Total 10 patients were recruited. Three patients were administered endovascular therapy with intravenous thrombolysis, seven patient underwent only endovascular treatment. Symptomatic intracerebral hemorrhage was observed in 1/10 (10%) and petechial hemorrhage observed in 1/10 (10%). Five patients showed significant improvement in National Institute of Health Stroke Scale score at discharge and modified Rankin scale at 3 months (5/10, 50%). Two patients had no change in National Institute of Health Stroke Scale score and modified Rankin scale at 3 months and 3 patients dead after 3 months. Unfavorable prognosis was observed in patient who received intravenous thrombolysis concomitant with endovascular treatment. Conclusion: In carefully selected patients, endovascular treatment may be considered in the management of acute ischemic stroke patients with current malignancy.