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Telestroke modena project: Hub and spoke comparison

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Introduction: rtPA thrombolysis still represents the primary therapy in acute stroke. Telestroke is likely the most promising tool to spread advanced care in stroke and to reduce the onset to needle time (ONT). In the last decade thousands of patients have been “telethrombolysed” in Europe, with good results in safety, efficacy and cost effectiveness (1). Following stroke societies' recommendations (2,3), the Telestroke Modena Project aims to offer rtPA therapy in the remote mountain areas, about as far as 1 h from our Stroke Unit.

Methods: The telemedical support consists of a digital network that included a 2-way video conference system, with high speed data transmission that allows stroke neurologists to see the patient and interact with internal physicians at Pavullo Hospital, Modena's Apennines. Brain CT scan is analyzed by a neuroradiologist on duty at Modena Hospital through an integrated RIS–PAC system. The enrollment is provided directly at a patient's home by a rescue team.

Results: From Jan. 2014 to Jan. 2015, 17 patients were included. After a complete evaluation following the standard “on label” criteria 6 patients were selected for “telethrombolysis” treatment with rtPA (5 m and 1 f; mean age: 73 years). We observed a neurological improvement in 5 patients (mean t0 NIH: 6; mean 24 h NIH: 1). 3 month mRS was 0–2 in 66% of patients. Mean onset to door time was 54', door to needle time 56' and ONT 123'. The hub results was respectively 64%, 78', 67' and 150'.

Conclusion: We found functional outcomes, complication rate and timing results comparable to our Stroke Unit, NINDS and SITS-MOST results.

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The impact of genetic polymorphisms on efficacy of aspirin in ischemic stroke patients in China

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Background & objectives: Little research regarding genotypes and aspirin response related to acute ischemic stroke has been published. This study was conducted to investigate whether the polymorphisms affect aspirin response and prognosis related to acute stroke.

Methods: A total of 752 patients with acute ischemic stroke were enrolled in this study; all received follow-up evaluations 3, 6 and 12 months after aspirin treatment. rs1045642, rs868853, rs1330344, rs20417, rs12041331, and rs2768759 were screened. The arachidonic acid (AA)-induced and adenosine diphosphate-induced (ADP) platelet aggregation test, the National Institutes of Health Stroke Scale (NIHSS), and the modified Rankin Scale (mRS) were used, and blood vascular events were evaluated.

Results: The difference before and after aspirin treatment on AA-induced platelet aggregation was significantly smaller in patients carrying rs12041331G alleles compared with patients carrying none. Patients with none had better outcomes demonstrated by NIHSS and mRS scores after treatment.

Conclusion: rs12041331 genotypes had a significant impact on aspirin response and prognosis of patients with stroke.

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Peripheral regulatory T cells and TH17 cells is associated with pathogenesis of MMD patients

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Background: Accumulating evidence has suggested that immune responses may play a pivotal role in the process of Moyamoya disease (MMD).

Objective: The purpose of this study is to explore whether alterations in Treg and Th17 cells in peripheral blood are associated with MMD.

Patients and methods: MMD patients (n = 26) diagnosed by angiography and volunteers (n = 32) were enrolled in this study. To determine the balance of Treg/Th17 in MMD, we used flow cytometry to measure the percentage of Treg and Th17 among lymphocytes in