ACUTE TOP OF THE BASILAR OCCLUSION: A SUCCESSFUL TREATMENT WITH IV THROMBOLYSIS AND THROMBECTOMY

G. PERROTTA[1-2], G. PELLICCIARI[1-2], F. DE SANTIS[2], P. FILAURI[3], A. CAROLEI[1-2], B. ORLANDI[1-2]

1 Department of Neurology and Stroke Unit, AZH - University of L' Aquila - 67100, L'Aquila
2 Department of Neurology and Stroke Unit, AZH - ASL1 AZ-SU-AQ - 67051, Avezzano
3 Department of Radiology. AZH - ASL1 AZ-SU-AQ - 67051, Avezzano

Introduction

Posterior circulation strokes account for approximately one-fifth of all ischemic strokes (IS). Top of the Basilar syndrome (TOB) is an uncommon cause of IS, associated with a high mortality rate (80-90%).

Methods

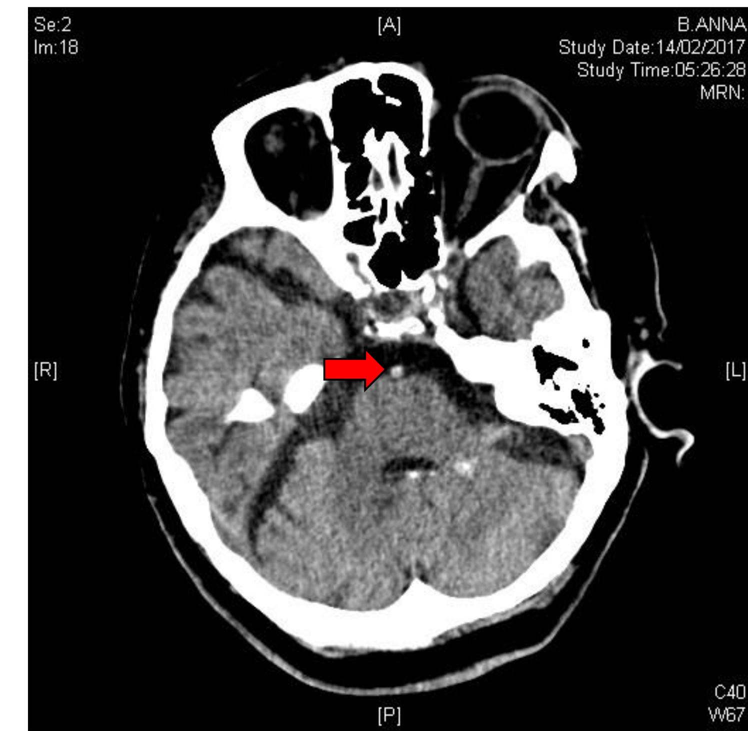
We report the first case of acute BAO, that was successfully treated in our Stroke unit bridging IV thrombolysis with mechanical thrombectomy.

Results

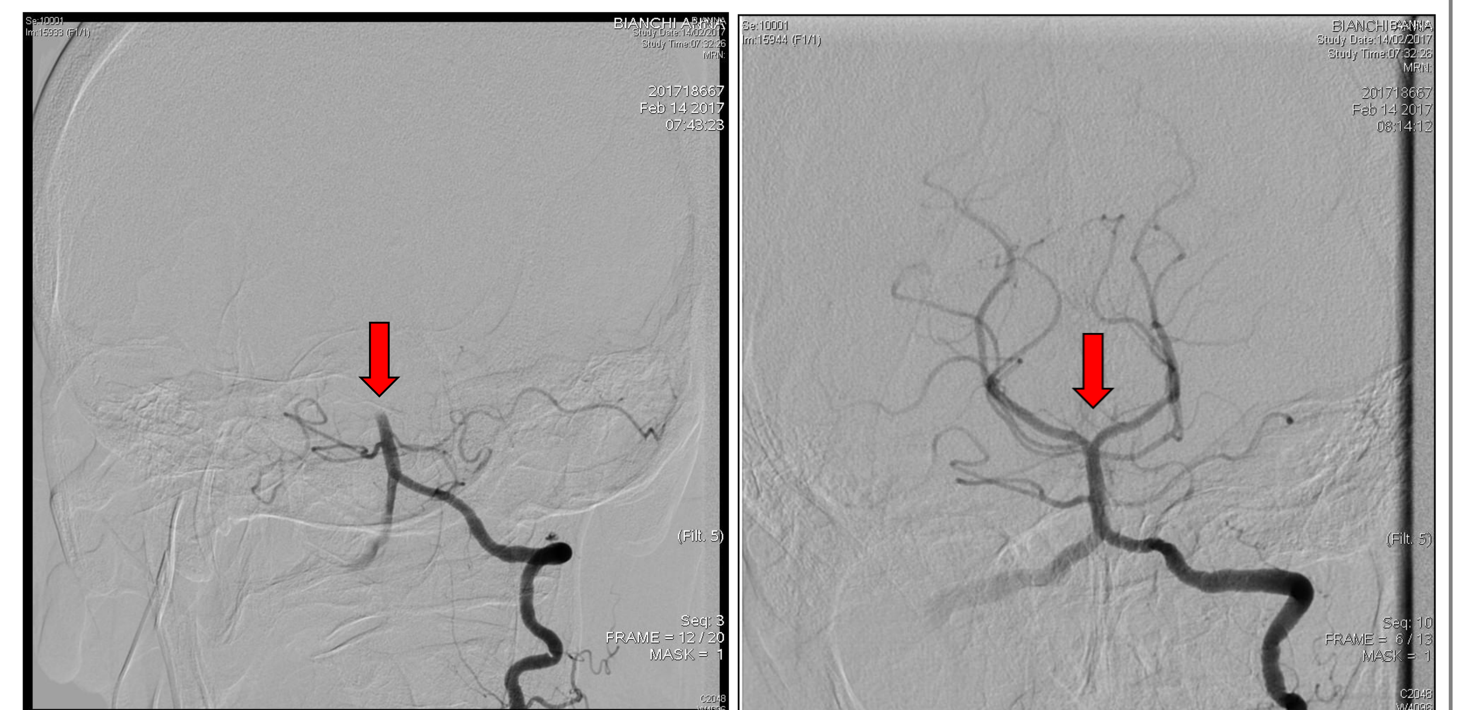
A 79-year-old female patient was referred to the Emergency Room (ER) of our Hospital because of abrupt loss of consciousness at 03:30 am.
Past medical history was remarkable for a transient ischemic attack, previous arterial hypertension, diabetes mellitus, permanent atrial fibrillation on treatment with warfarin. Her CHA_2DS_2-VASC score was 7 and the HAS-BLED score was 4. Arterial blood pressure was 90/50 mmHg, heart rate was 120 bpm and the International Normalized Ratio (INR) 1.40. On arrival to the ER the Glasgow Coma Scale was 6 and the NIHSS score was 35. Brain CT showed hyperdense basilar artery sign, suggestive of acute occlusion. Brain CT angiography confirmed the arterial occlusion with a 9 mm-extended distal obstruction. IV thrombolysis with alteplase 0.9 mg/kg was started in the ER 3.30 hours after last seen normal. Cerebral angiography confirmed the intermediate-distal occlusion of the BA, with poor collateral circulation. In the angiographic suite mechanical thrombectomy was started 15 min later. Only one passage of Trevo 4-20 Stent Retriever was needed to extract the thrombus, with complete reperfusion (TICI 3). Time to reperfusion was 4.30 hours after symptoms onset. At the repeat neurologic examination 24 hours later, the NIHSS score was 6. Brain neuroimaging follow-up evaluation showed a left paramedian mesencephalic infarction. The NIHSS score at discharge was 3, due to a residual internuclear ophthalmoplegia and mild left limbs ataxia.

Conclusions

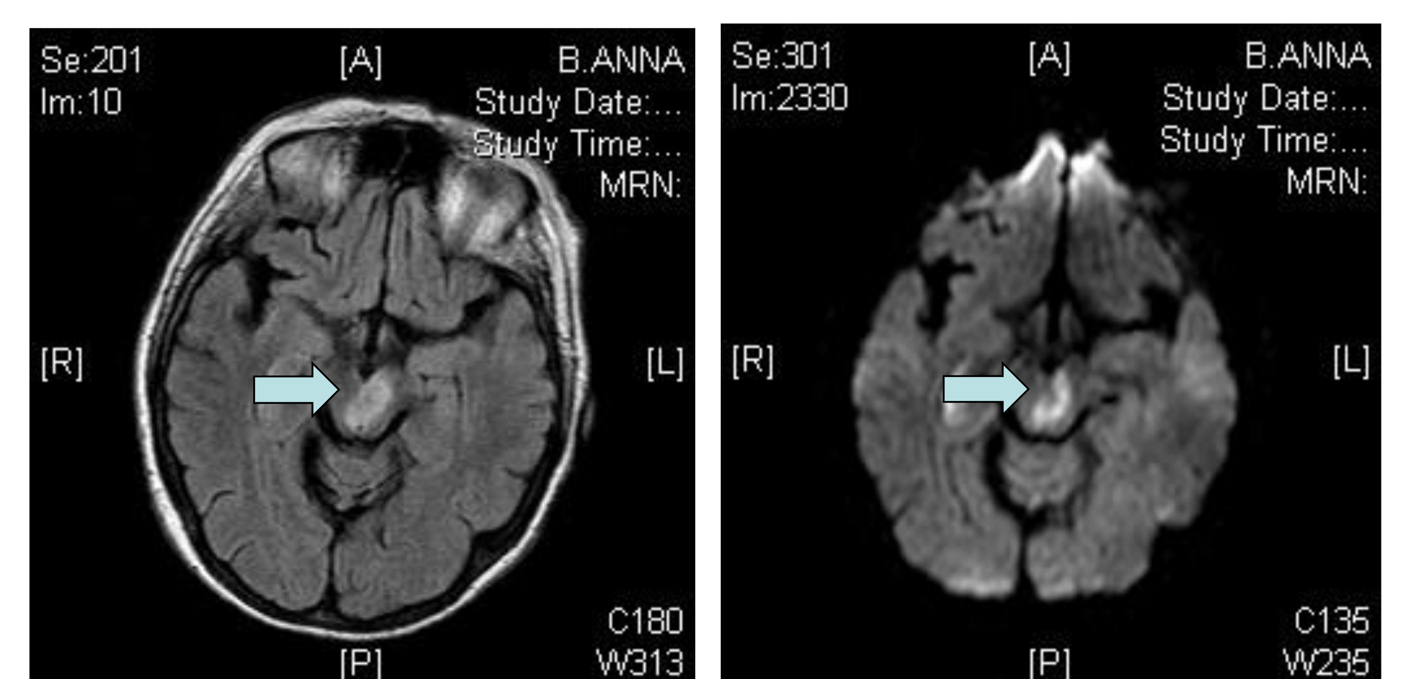
We report the first case of acute top of the basilar occlusion treated with IV thrombolysis and mechanical thrombectomy in our Stroke Unit, within the appropriate time window that successfully contributed to dramatically improve prognosis and quality of life in our patient.



Brain TC showing hyperdense basilar artery sign (dot sign), suggesting acute vascular occlusion.



Brain CT angiography confirmed the distal arterial occlusion (left) and the subsequent complete reperfusion (TICI3) (right).



Brain MR FLAIR and DWI imaging showing a left paramedian mesencephalic infarction.

Bibliografia

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