

BASILAR ARTERY OCCLUSION: one-year single centre experience

A Bavaro*, M Petruzzellis*, L Chiumarulo°, DM Mezzapesa*, B Tartaglione*, M Savarese*, P Milzi*, N Medicamento°, F Dicuonzo°, F. Federico*

* Department of Neurosciences and Sense Organs; University of Bari

°Department of Neuroradiology

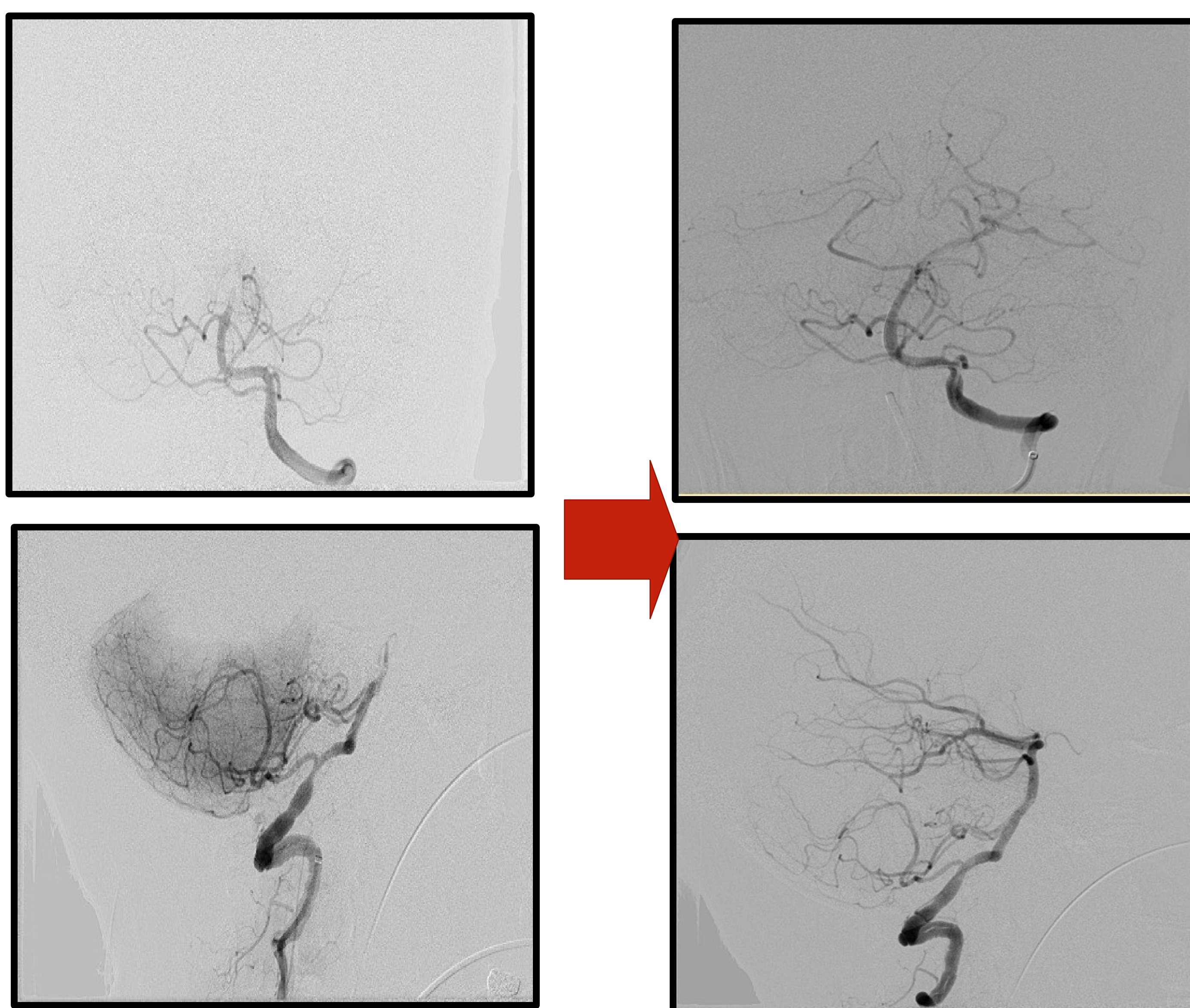
BACKGROUND

Acute basilar artery occlusion (BAO) is a rare stroke syndrome with high rates of death and disability. Acute treatment is decisive because a small infarct can have devastating clinical repercussion but imaging and clinical predictors are not yet fully understood. Literature data suggest an improved natural history with aggressive intervention but evidence is still lacking.

MATERIALS AND METHODS

Seven patients with acute BAO confirmed by digital subtraction angiography (DSA) treated with mechanical thrombectomy within 24 hours from symptom onset between April 2015 and April 2016 were evaluated. Brain nuclear magnetic resonance (NMR) was done in all the cases prior the treatment evidencing posterior circulation infarction.

	A	B	C	D	E	F	G	
Age	67	55	49	47	70	24	73	Mean 55
Sex	M	M	F	F	F	F	M	
NIHSS	16	23	25	7	25	5	11	Median 16
Tracheal intubation	yes	yes	yes	yes	yes	yes	no	
Thrombolysis ev	no	no	yes	no	no	no	no	
Time from symptoms onset to groin puncture (min)	169	350	320	680	376	1380	460	Mean 8.9 h
Successful recanalization	yes	yes	yes	yes	yes	yes	no	
Time from symptoms onset to recanalization (min)	270	390	410	790	423	1440	NA	Mean 10.3 h
Device	Solitaire	thromboaspiration	Solitaire	Solitaire + thromboaspiration	Solitaire	thromboaspiration	Solitaire	
Complications	VA dissection	no	SAH	no	no	no	no	
Rankin at 3 months	5	5	1	6	4	5	5	



DISCUSSION AND CONCLUSION

Our data confirm that endovascular treatment of acute BAO has high morbidity rate, although it reaches good recanalization with low rates of complications. **Low admission NIHSS and NMR patients selection** seem to be associated with better clinical outcomes. There is a strong effect of **time to treatment and to reperfusion** (within 6 hours) on the rate of disability. Meanwhile the timing of procedure has no effect on the rate of successful recanalization. There is no difference between stent retrievers and aspiration thrombectomy but **bridging therapy** (IV-rtPA) improves the clinical outcome. Finally mechanical thrombectomy in acute BAO has good efficacy and safety, but an effort to reduce time to treatment is absolutely necessary to reduce death or dependency.

REFERENCES

- M. Mokin; et al. "Clinical and Procedural Predictors of Outcomes From the Endovascular Treatment of Posterior Circulation Strokes" *Stroke* 2016; 47:782-788 .
- J. T. Yeung, et al. "Endovascular Revascularization for Basilar Artery Occlusion" *Intervent Neurol* 2014;3:31-40.