Endovascular Treatment in Patients With Acute Ischemic Stroke and Comorbid Cancer: Analysis of the Italian Registry of Endovascular Treatment in Acute Stroke

F. Letteri[1], G. Pracucci [2], V. Saia [3], L. Malfatto [4], M. Longo [5], A. Zini [6], F. Causin [7], U. Scoditti [8], M. Mancuso [9], F. Pintus [10], S. Bracco [11], M. Assetta[12], M. Bergui [13], C. Comelli [14], S. Mangiafico [15], D. Toni [1]

1 Umberto I Hospital - Sapienza University, Emergency Department Stroke Unit - Department of Human Neurosciences, Rome, Italy; **2** University of Florence, Neurofarba Department of Neuroscience section, Florence, Italy; **3** Santa Corona Hospital, Neurology and Stroke Unit, Pietra Ligure, Italy; **4** San Martino Hospital, Interventional Neuroradiology Unit, Genoa, Italy, **5** G. Martino Hospital - University of Messina, Department of Biomedical Sciences and Morphological and Functional Imaging, Messina, Italy. **6** Maggiore Hospital - Institute of Neurological Sciences of Bologna IRCSS, Department of Neurology and Stroke Center, Bologna, Italy; **7** University Hospital of Padua, Interventional Neuroradiology Unit, Padua, Italy; **8** University Hospital of Parma, Interventional Neuroradiology Unit, Parma, Italy; **9** Cisanello Hospital, Neuroradiology Unit, Pisa, Italy; **10** SS. Annunziata Hospital, Interventional Neuroradiology Unit, Sassari, Italy; **11** S. Maria delle Scotte - University Hospital, Interventional Neuroradiology Unit, Siena, Italy; **12** Civile Mazzini Hospital, Vascular and Interventional Radiology Unit, Teramo, Italy; **13** "Città della Salute e della Scienza – San Giovanni Molinette", Interventional Neuroradiology Unit, Torino, Italy; **14** San Giovanni Bosco Hospital, Interventional Neuroradiology Unit, Torino, Italy; **15** Careggi-University Hospital, Interventional Neuroradiology Unit, Firenze, Italy.

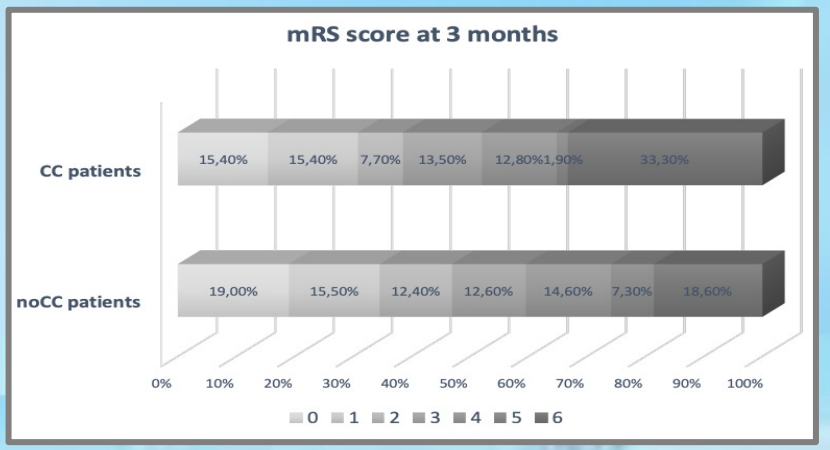
INTRODUCTION AND PURPOSE

Acute stroke patients with comorbid cancer (CC) are more preferably addressed with endovascular treatment (EVT) than thrombolysis, due to the presumed potential risk of bleeding. This study aims to evaluate clinical and procedural outcomes of acute stroke patients with CC receiving EVT (1-5)

METHODS

Using the Italian Registry of Endovascular Treatment in Acute Stroke, we reviewed data of CC patients treated with EVT from 2011 to 2017. Outcome measures were modified TICI score, sICH rate, and 3-month mRS (fig.). We also compared CC patients with a control group without cancer (non-comorbid cancer, NCC) receiving EVT and matched the 2 populations with a 1:1 propensity score

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RESULTS

Out of 4598 patients treated with EVT, 165 (3.6%) had a CC. mTICI 2b-3 was obtained in 73.8% of CC and 74.5% of NCC (P=0.84). 3-month all-cause mortality was 33.3% in CC patients and 18.6% NCC patients (P<0.001). Metastasis and a more recent diagnosis of cancer were significantly associated with a higher 3-month mortality (P=0.018 and 0.021, respectively). Breast cancer showed a significant correlation with mild or no disability (OR 3.32; CI, 1.28–8.67; P=0.01) and less death cases at 3-months (OR 0.44; CI, 0.16–1.21; P=0.114) (tables)

CONCLUSIONS

Although 3-month all-cause mortality was significantly higher in CC patients, successful recanalization and hemorrhagic transformation rate were comparable in both groups. In cancer patients, a metastatic and active disease seem to be associated with a poorer functional outcome, whereas a diagnosis of breast cancer appears to be more frequent in patients with a mild or no disability at long term.

FUNCTIONAL INDEPENDENCY at 90 days

	Univariate analysis		Multivariate analysis	
	OR (95% CI)	P	OR (95% CI)	P
Lung cancer	1.49 (0.54 – 4.11)	0.444	1.41 (0.43 – 4.57)	**0.56**
Breast cancer	2.14 (0.93 – 4.92)	0.073	3.32 (1.28 – 8.67)	**0.01**
Gastrointestinal cancer	**0.54 (0.24 – 1.19)**	**0.126**	**0.74 (0.30 – 1.85)**	**0.52**

MORTALITY at 90 days

	Univariate analysis		Multivariate analysis*	
	OR (95% CI)	P	OR (95% CI)	P
Lung cancer	1.95 (0.70 – 5.42)	0.200	2.39 (0.79 – 7.22)	**0.12**
Breast cancer	0.49 (0.18 – 1.30)	0.150	0.44 (0.16 – 1.21)	**0.11**
Gastrointestinal cancer	**1.86 (0.87 – 3.96)**	**0.108**	**1.45 (0.65 – 3.24)**	**0.36**