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

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ABSTRACT

Statement of the Problem: 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.

Methodology & Theoretical Orientation: Using the Italian Registry of Endovascular Treatment in Acute Stroke, we reviewed prospectively collected data of CC patients treated with EVT from 2011 to 2017. Outcome measures were modified TICI score, sICH rate, and 3-month mRS. 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.

Findings: Out of 4598 stroke patients treated with EVT, 165 (3.6%) had a CC. Modified TICI 2b-3 was obtained in 73.8% of CC and 74.5% of NCC (P=0.84), whereas the rate of sICH was 8.2% and 6.9%, respectively. Three-month all-cause mortality was 33.3% in CC patients and 18.6% NCC patients (P<0.001), and after propensity score was 35.4% and 22.1%, respectively (P=0.012). In CC patients, the presence of 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 (odds ratio, 3.32; CI, 1.28–8.67; P=0.014) and less death cases at 3-months (odds ratio, 0.44; CI, 0.16–1.21; P=0.114) compared to the other most represented malignancies.

Conclusion & Significance: 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.

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Biography

During her residency, she developed a strong interest in neurovascular diseases and, in addition to pure clinical work, she pursued research. Her main area of interest focuses on the diagnosis, management, and treatment of acute stroke, as well as genetic and rare diseases in neurovascular syndromes. Her goals are to keep patients at the center of her work, to create a constructive network among colleagues, and to have the determination and curiosity to investigate any unknown disease

case. She has learned the value of teamwork and the need to take the proper time to reflect and reason about clinical and neuroimaging data with the goal of improving our clinical practice from one to a multitude of patients.

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