Long-term outcome and risk of epilepsy development in patients with acute symptomatic post-stroke seizures

Niccolò Orlandi[1,2], Giada Giovannini[1], Guido Bigliardi[1], Stefania Maffei[1], Matteo Pugnaghi[1], Anna Vaudano[1,2], Leonardo Affronte[1], Laura Madrassi[1,2], Simona Scolastico[1,2], Lisa Taruffi[1,2], Margherita Burani[1,2], Simona Lattanzi[1,2], Stefano Meletti[1,2]

[1] Department of Biomedical, Metabolic and Neural Sciences, University of Modena and Reggio Emilia, Modena

[2] Neurology Unit, Ospedale Civile di Baggiovara, AOU Modena

[2] Neurological and Clinical Medicine, Marche Polytechnic University, Ancona

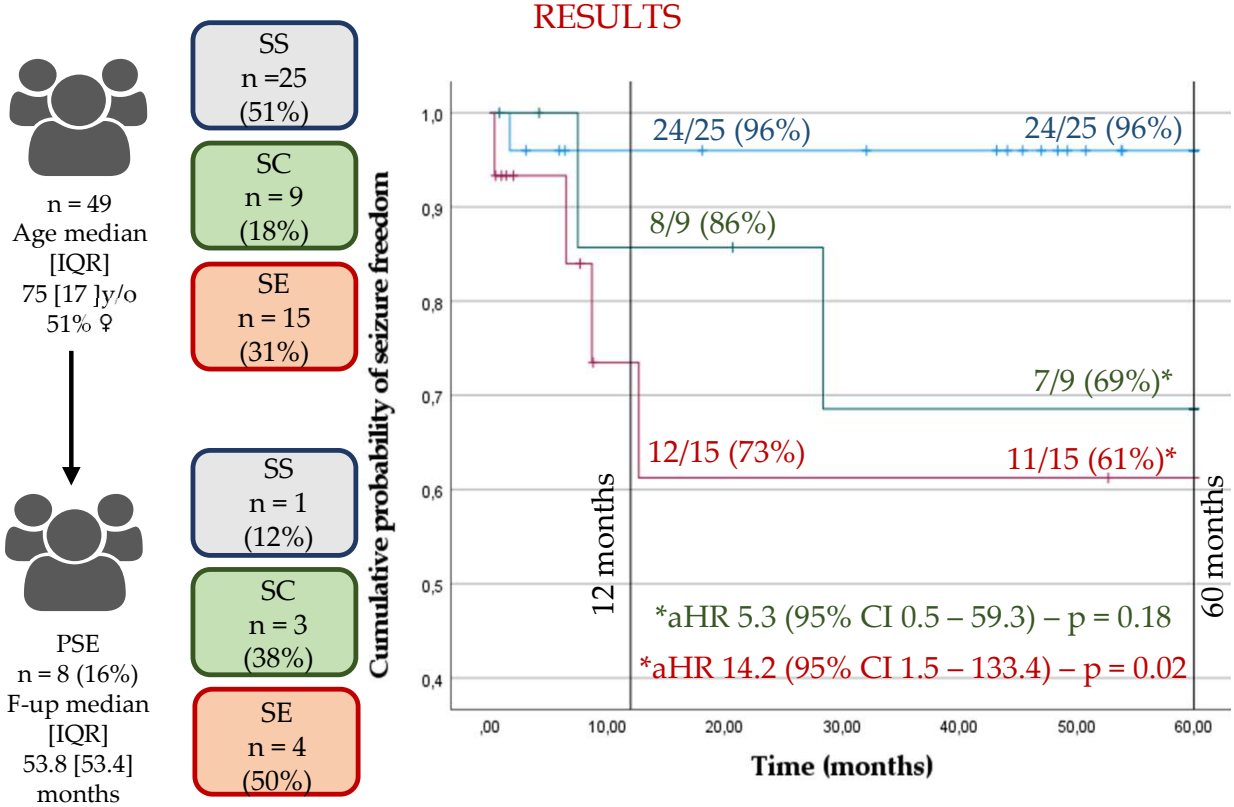
INTRODUCTION

Acute symptomatic seizures (**ASyS**) are considered among the most relevant **risk factors** for the development of **post-stroke epilepsy** (**PSE**) [1]. ASyS timing and type significantly affect either epilepsy and mortality risk after stroke [2,3]. Herein, we explored seizures' outcome in a cohort of adult patients with ASyS after a first-ever ischemic stroke.

METHODS

Observational, single-center, retrospective study of adult patients admitted to the Stroke Unit of Modena Academic Hospital (Italy) for a first ever-ischemic stroke from January 1st 2004 to December 31st 2022. ASyS were defined according to ILAE definition [4]. Patients with ASyS were further divided among those with single seizures (SS), seizure cluster (SC) or status epilepticus (SE). Kaplan-Meier survival analyses and Cox proportional hazard regression models were used to estimate seizure freedom as longterm outcome.

RESULTS



CONCLUSION

In our cohort, the risk of PSE appeared to be influenced by the type and "severity" of seizures' phenomena in the acute phase after stroke

1) Galovic et al. *Lancet Neurology* 2018
2) Sinka et al *Jama Neurology* 2023
3) Schubert et al. *Stroke* 2025
4) Beghi et al. *Neurology* 2011