Features of refractory status epilepticus in children

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Introduction. Status epilepticus (SE) is a life-threatening neurological emergency requiring urgent medical intervention and is associated with high mortality and morbidity.

The aim: of this research was evaluation of clinical and etiological profile of refractory status epilepticus (RSE) among children aged between 1 month and 18 years.

Materials and methods. The study was done between January 1, 2017 and December 24, 2019. All children with the age limits mentioned above, who presented convulsive SE, subsequently with development in RSE, were included in the study. Patients were investigated and evaluated according to a standard protocol. Subsequently, the characteristics of children with RSE and those without an evolution in RSE were compared.

Results. In the study were enrolled 55 children, out of whom 32 boys with SE, of which 20 children (36%) developed RSE. The most common causes of SE and development of RSE were CNS infections (51% in SE and 53% in RSE, $p > 0.05$). As the second cause for evolution in RSE served noncompliance of antiepileptic medication. The overall mortality rate was 10.9%, the chances of death in RSE (20%) being higher than in SE (5.7%). In children with RSE the unfavorable prognosis was seven times higher, compared to children who developed SE (PR = 7.0; 95% CI:1.6–22.3).

Conclusions. Pediatricians should be aware of the high risk of developing RSE in the management of CNS infections. Adherence to the correct administration of antiepileptic medication should also be considered. In addition, the possibility of developing RSE should be considered and promptly managed in an intensive care unit in order to reduce the risk of mortality and morbidity of this severe neurological condition.