P-023 - INFANT MORTALITY ATTRIBUTABLE TO INBORN ERRORS OF METABOLISM ASSOCIATED WITH SUDDEN DEATH IN INFANCY: A BRAZILIAN EPIDEMIOLOGICAL STUDY

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INTRODUCTION: Sudden unexpected death in infancy (SUDI) is one of the most frequent causes of death during the first year of life. From 0.9% to 6% of children with SUDI may have some inborn error of metabolism (IEM), and SUDI may be the main manifestation of these diseases. To date, there is no data on the frequency of IEM associated with SUDI associated in Brazil. OBJECTIVES: To estimate and characterize, by region of Brazil, deaths related to IEM associated with SUDI in neonates and infants <1yo from 2002 to 2014. METHODOLOGY: a descriptive, cross-sectional, population-based study of data obtained from the Brazilian Ministry of Health Mortality Information System (SIM). Death records were obtained for all infants (age <1yo) who died in Brazil in 2002–2014 in whom the underlying cause of death was listed as ICD-10 codes E70 (Disorders of aromatic amino-acid metabolism), E71 (Disorders of branched-chain amino-acid metabolism and fatty-acid metabolism), E72 (Other disorders of amino-acid metabolism), or E74 (Other disorders of carbohydrate metabolism), which are known to be associated with SUDI. RESULTS: 199 deaths of children <1year old in Brazil were recorded from 2002 to 2014 due to IEM associated with SUDI, with an estimated mortality rate of deaths of 0.67: 10,000 live births (CI95% 0.58-0.77). Of these 199 deaths, 18 (9.0%) occurred in the North, 43 (21.6%) in the Northeast, 80 (40.2%) in the Southeast, 46 (23.1%) and 12 (6.0%) in the Central-West region of Brazil. In all regions, ICD10-E74 was the most frequent. CONCLUSIONS: This 13-year time-series study provides the first analysis of the number of infant deaths in Brazil attributable to IEMs known to be associated with sudden death. According to our data, fatty acid metabolism disorders are not the most prevalent group of IEM associated to SUDI, probably due to the underdiagnosis.