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BOOK OF ABSTRACTS

23rd EAA
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Anthropology in the Anthropocene:
Exploring Human Influences On The Global Ecosystem

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HEALTH OUTCOMES AND THEIR ASSOCIATIONS IN PRETERM SURVIVORS FROM BIRTH TO ADOLESCENCE: A LONGITUDINAL COHORT STUDY

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Background and aim: The study bridges the research gap by investigating health outcomes and disease patterns from birth to adolescence in preterm survivors, highlighting the necessity of integrated over isolated organ system research. Materials and Methods: In a retrospective longitudinal study of 417 preterm children until adolescence (201 boys, 216 girls, born 2000-2015), first-time diagnoses (1,818 total) from medical records were categorized using ICD-10 classification. Sex, birth weight (BW), and gestational age (GA) were analysed using Poisson and negative binomial regression to explore disease associations. Results: Premature children's primary disease burden spans from birth to preschool. Lower BW groups - "Extremely and very low", "Low", and "Sub-optimal" - displayed an increased number of diseases, by 1.77, 1.50, and 1.34 times, respectively, compared to the "Normal" BW group. Main logistic regression results for age [0-3]: perinatal conditions quadrupled the risk of nervous system diseases ($p<0.01$); probability of having mental, behavioural disorder was over five times higher in those with nervous system or musculoskeletal conditions. Results for [4-7] years: endocrine, metabolic diseases more than doubled the odds of infectious diseases (OR=2.44, $p<0.01$); respiratory diseases were twice as likely with prior endocrine disorders (OR=2.04, $p<0.05$); genitourinary conditions were linked to prior infectious diseases (OR=4.02, $p<0.01$). For ages [8-12], endocrine, metabolic disorders were strongly associated with prior musculoskeletal conditions (OR=8.72, $p<0.001$); respiratory diseases exhibited a remarkable association with prior endocrine and metabolic diseases (OR=26.98, $p<0.01$). Conclusions: Logistic regression results advocate for the complex interactions between developing organs and their systems, which begin in prenatal life and continues throughout the growth period. An evolutionary approach will be presented and discussed.

Keywords: Prematurity, multimorbidity, longitudinal study, ICD-10, diseases