P-198 - TEN YEARS EXPERIENCE OF THE NEONATAL SCREENING PROGRAM FOR CONGENITAL HYPOTHYROIDISM IN LA PAZ - BOLIVIA

Jové AL\textsuperscript{1}, Siacar S\textsuperscript{2}, Salvatierra I\textsuperscript{3,4}

(1) Newborn Screening Laboratory (NBSL) - Arco Iris Hospital. (2) Pediatric Endocrinology Unit – Materno Infantil Hospital. (3) Medical Genetics Unit – Arco Iris Hospital. (4) Medical Genetics Unit – Materno Infantil Hospital. La Paz – Bolivia.

INTRODUCTION: Congenital hypothyroidism (CH) is a catastrophic disease when it is not early identified and treated. The untreated CH causes intellectual disability. In La Paz - Bolivia, the Regional Newborn Screening Program (R-NBSP) for urban and rural areas has been leading by Newborn Screening Laboratory (NBSL) of Arco Iris Hospital. OBJECTIVE: To show the experience of R-NBSP and report the prevalence of CH in La Paz. MATERIALS AND METHODS: The primary screening for high TSH levels has been the screening approach for CH used by R-NBSP. The hospital and health centers network increased from 8 to 67 in the 2008-2018 period. The NBSL has processed filter paper blood spots from heel samples obtained from each newborn. For term newborns, the sample was collected 24 to 72 hours after birth and for preterm infants, once they reached 40 corrected weeks. All samples were processed using the time-resolved fluorescence immuno assay technology. TSH values above 10 UI/ml were considered suspicious. The complete thyroid profile was performed in serum to confirm each suspicious sample. The false-positive rate was approximately 0.5%. The Pediatric Endocrinologist evaluated all CH patients and started treatment with oral levothyroxine. The Clinical Geneticist evaluated possible syndromic cases. Periodically, they received a clinical and laboratory follow-up. RESULTS: In total 148853 newborns were screened. Initially, 885 samples were positive. Seventy cases of CH were confirmed. Female cases represent 61%. Newborn screening coverage was 21%. The frequency of CH was 1/2126 live births. CONCLUSIONS: In Bolivia, there is no official National Program for neonatal screening. The experience accumulated over ten years in this R-NBSP contributes to laying the foundations for the development of a National Neonatal Screening Program for CH. The increase in newborn screening coverage for all newborns should be considered one of the greatest goals to be achieved.