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Estimation of Lead Level among Children with Pervasive		
Developmental Disorders		عنوان الرسالة

Abstract

Lead poisoning in children is known to negatively affect brain systems implicated in cognitive, communication, and social functioning. The present study aimed to compute lead concentration in children with pervasive developmental disorders, and to signify the relationship between the blood lead level and some of sociodemographic characteristics of study subject such as (age , gender, parent's education, parent's occupation, housing conditions, socioeconomic status and intelligent quotient). A case-controlled study has been designed for a sample of subjects consists of (50) children, aged between (3-12) years divided into two groups, (25) in each group. The first group has represented the children with PDDs, who used to visit the Psychiatric Research Unit/ Mosul University/ College of Medicine, while the second group has represented the control group which included volunteered healthy children. The study has been conducted in Mosul city during a period of seven months extending from 1st December 2009 to the end of 30th June 2010. Data were collected from using questionnaire through out interview technique for all parents of children. Blood lead level was measured by means of Atomic Absorption Spectrophotometer. The data were analyzed through the application of descriptive statistical analysis that included (Frequency, Percentage, Mean and SD) and the application of inferential statistical analysis that included(Alpha correlation coefficient, t-test and ANOVA). The findings revealed that the higher percentage of children with PDDs (56%) had blood lead level (15-19 μ g/dl) with a mean of (16.9 μ g/dl), (4%) of them had level lower than (9 μ g/dl) with a mean of (8.6 μ g/dl), and no one had a level above (45 μ g/dl), most children have moderate PDDs (52%) according DSM-IV, also the results revealed that there is a significant difference between the Mean of blood lead levels and age, gender, socioeconomic status, house condition and IQ of children with PDDs. The study demonstrated variation in levels of lead in children with pervasive developmental disorders as compared to healthy children. The study recommended that pediatricians and nurses should provide anticipatory guidance to parents of all children; this includes information on potential risk factors for lead exposure and specific prevention strategies that should be tailored for the family and for the community in which care is provided, Supporting legislation to reduce the entry of lead into the environment and into consumer products with which children may come in contact, Establishing special center for autism and a special laboratory to estimate blood lead level for those children.