

Comparison prevalence of seizure after receiving DTP and DTP-HepB-Hib vaccinations among children less than 1 year of age in Ardabil Bu-Ali hospital

Abstract:

Background and Objective: The prevention of infectious diseases by using the vaccine is one of the great successes of the history of medical science. In the previous vaccination program for children in Iran, a DTP vaccine including diphtheria, tetanus, and pertussis alongside a Hepatitis Type B vaccine were injected, but in the new vaccination program only one vaccine called Pentavalent is being used. The main purpose of this study is to compare the seizure incidence following pentavalent vaccination and DTP vaccination in children who admitted in Buali hospital.

Methods: This study is done as a Health Research Study (HSR) in Ardebil province. For this purpose, referring to the archives of Bu-Ali Ardebil Hospital, the total number of children under 1 year old from September 2015 to September 2017 also from September 2011 to September 2013 were obtained. The required information for each child was obtained by examining hospital records as a questionnaire which includes sex, age of vaccination, seizure frequency in 72 hours, seizure durations, seizure type, febrile convulsion, familial history of seizure and seizure history before vaccination. In some cases information obtained by communicating parents. subsequently obtained data were analyzed by SPSS v24 software using Chi-square and T-test.

Results: Out of 20 cases of seizures following vaccination, 3 cases caused by DTP vaccine and 17 cases caused by pentavalent vaccine. Mean age of Pentavalent group was 3.14 ± 2.1 months and DTP group consisting of 3 persons was 2.0 ± 2.0 months. In the DTP group, there were two boys (66%) and one girl (33%), and in the pentavalent group there were 12 boys (70%) and 5 girls (30%).

Conclusion: Result showed a significant relationship between seizure incidence and pentavalent and DTP vaccinations. Also, there was a significant relationship between duration and age of onset of seizure with vaccine type.

Keywords: Seizure prevalence, DTP vaccination, pentavalent vaccination