Risk factors of autism: A saudi study

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Abstract

This study has been conducted to determine the possible risk factors of autism in KSA. It is a case control study conducted at Mental health clinic integrated in Pediatric clinic of Prince Mansour Military hospital, Taif KSA on 60 autistic patients who were subjected to the followings tools: Confirmation of diagnosis using DSM-IV-TR criteria, IQ assessment using Stanford–Binrent intelligence scale, and assessment of severity of autistic symptoms using childhood autism rating scale (CARS). Full clinical examination, and neurological examination, were also done.

There was no statistically significant difference between cases and controls as regards their age, weight, height, birth order, age of mother at time of delivery, While father's age at the time of delivery was higher in cases (median 38y) than in controls (median 33y) and this was statistically significant (z=2.143, p=0.016). According to CARS scores showing severity of autism, 15 of patients (25%) mild, 25 of patients (41.6%) moderate, while 20 of patients(33.3%) severe. While 33 autistic patients (55%) had mild to severe retardation, and 22 patients (35.7%) had below average mentality, only5 autistic patients (8.3%) had normal mentality Our study Shows that 55% of parents of autistic children were first degree consanguineous versus only 36.7% of controls, this was statistically significant (X2=5.492, p=0.019). Moreover, 39% of autistic children had positive family history of psychiatric disease compared to only 18.3% of controls and this was statistically significant (X2= 8.96, p=.003), 36.9% versus only 11.7% of families of cases of autistic patients and controls respectively had a positive family history of autism and this difference was statistically significant (X2 = 15.62, p=.0001). It also revealed that 30% of mothers of autistic children compared to only 12.5% of mothers of control group were diabetics, this difference was statistically significant (X2= 8.182, p=0.004), it is worth mentioning that 48.3% of mothers of autistic patients versus only 11.7% of controls were exposed to psychic trauma during pregnancy, this difference was also significant (X2=29.57, p=0.0001).

Logestic regression showed that high paternal and not maternal age, positive family history of psychiatric disorder and autism among family members, maternal diabetes mellitus, exposure of mothers to stress were associated with high risk of autism. Other risk factors male children, high maternal education consanguinity, abnormal presentation, low birth weight due to small for gestational age, nursery admission and repeated gastrointestinal disorders although not proven as independent risk factors for autism , these variables should be examined in future studies that use large population based birth cohorts with precise assessments of exposures and potential confounders.

Biography

Farihan Farouk Helmy is a pediatrician and a Consultant Child Mental Health. He is working as Assistant Professor of Pediatrics in Taif University, Saudi Arabia .He attended many International Conferences and published many articles in Pediatrics journals.