Communicative Disorders in Autism

An Essay

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Presented by

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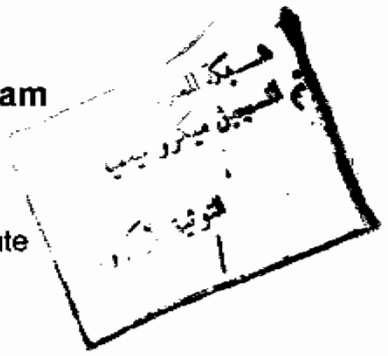

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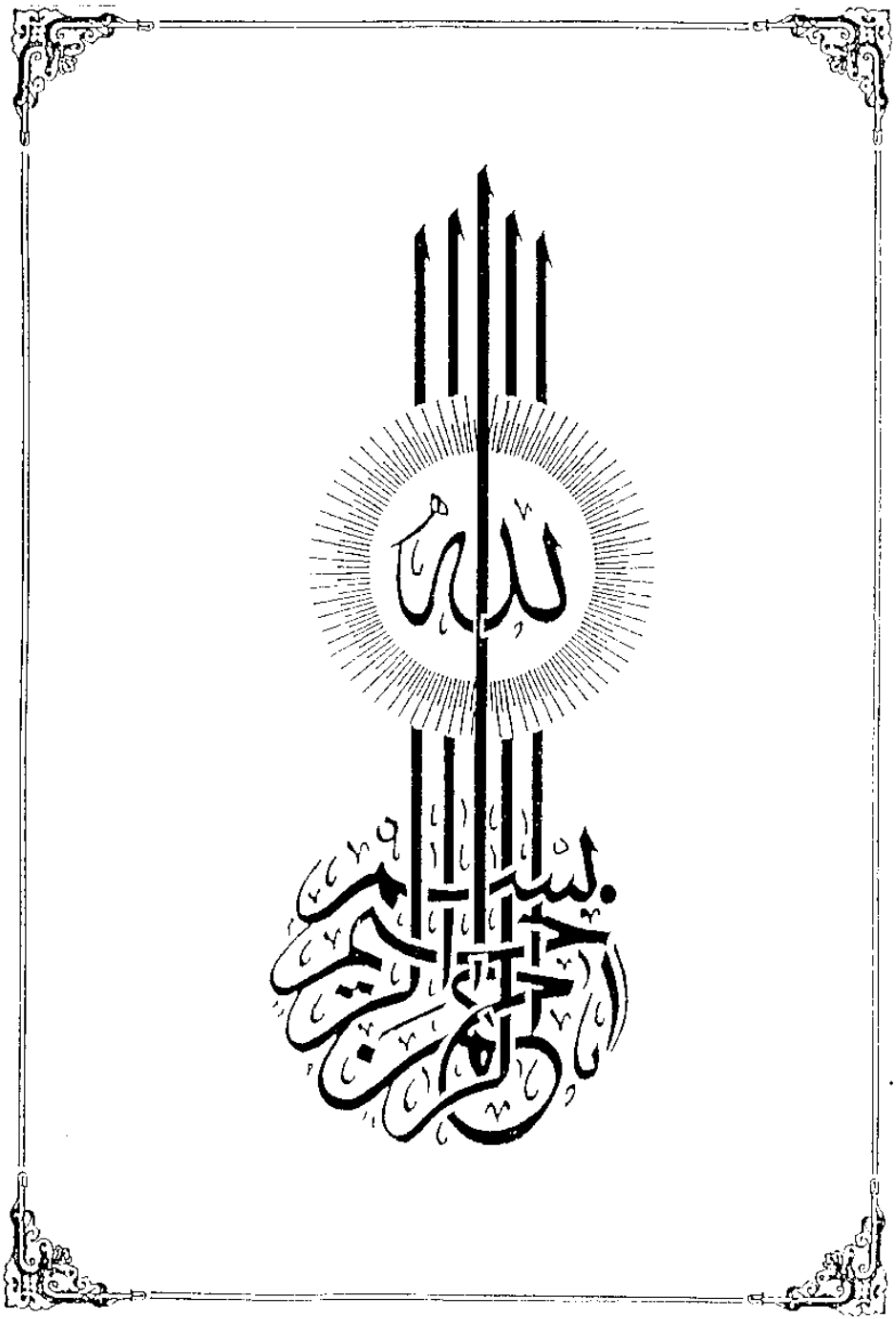
بسم الله الرحمن الرحيم

وما أوتيتم من العلم الا قليلا

صدق الله العظيم

الاسراء آية ٨٥



TO MY PARENTS AND MY WIFE

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Contents

Introduction

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The child constructs an internal map of the surrounding world from a mass of incoming data through the first year of life. Once the child reaches a certain degree of thoughts , he goes to acquire a range of communication skills, of which language is the most important. Cognitive development depends on the evolution of thought processes, which depend on normal brain function . If a damage occur either to neuronal substrate or to the child's environment, it will lead to cognitive deficits that present clinically as a disorder of communication *(Hattori et al., 1991)*. Autism is one of the pervasive developmental disorders of the brain function *(Rapin, 1991)*.

The title pervasive focuses on the wide spread nature of the disorder affecting communication "verbal and nonverbal", socialization and reciprocal social interaction, and a restricted stereotyped repetitive repertoire of interests and activities *(Le-Couteur, 1990)*.

Autism was first described by leo kanner in 1943, when he described 11 psychotic children who were different from children with other psychiatric disorders. The features noted by kanner included**(1)** difference in speech in the form of delay in acquisition, non-communicative use of speech, echolalia and pronominal reversals, **(2)** normal physical appearance, **(3)** poor relationships, **(4)** insistence on sameness, **(5)** good rote memory and **(6)** poor imagination.

Rutter (1978) found three broad groups of symptoms in most children diagnosed as autistic which are**(1)** failure to develop social relationship, **(2)** language retardation and**(3)** ritualistic or insistence on a routine. Rutter pointed that an important criterion for diagnosis of autism is the onset before the age of 30 months.

Autism is not defined by etiology or pathology, but by the presence of a particular pattern of characteristic behavior that follow a particular development course with evidence of delay or deviant development within the first three years of life *(World Health Organization, 1989)*.

The Aim of the Work

The aim of this work

The aim of this work is to review the relevant literature about autism to present an updated report on diagnosis and management of the condition of autism in order to help in better understanding of the problem and hence better intervention.

Etiology

Etiology

During the last decade, considerable advances have been made in clinical epidemiological researches of autism. Although, there are no definitive answers, these advances have provided new and important clues about etiologies and mechanisms of this disorder. Autism does not have a single etiology . Several etiologies are already suspected. It is not accepted that a single pathophysiologic mechanism will account for all cases .

The etiology of autism may lie in : **(1)** prenatal and perinatal events,**(2)** neurological causes or **(3)** genetic causes *(Bauman et al.,1990)*.

(1) Prenatal and perinatal events :

Deykin and*MacMahon (1980)* had indicated that in the prenatal phase, mothers of autistic children showed an excess of complications when compared with normal children, specifically maternal bleeding after the first trimester.

Rubella and toxoplasmosis in pregnancy. Prematurity, cesarean sections as a mode of labour and infantile spasms were more common in the histories of children with autism *(Kolvin et al., 1971)*.

*Labascher et al ., (1970)*said that postmaturity was the most common perinatal factor, also labour complications like the uterine inertia and obstructed second stage are also found in relation to autism. This study also observed that the family

histories of autistic children had cases of alcoholism, psychiatric illness, mental retardation and a variety of other diseases which suggest underlying immune disease such as tuberculosis ,Parkinson's disease and allergies. *Gene et al., (1986)* found that family histories of allergic reactions to inhalants and ingestants were reported in all autistic cases in their study which suggests that an immunological disorder may be one of the etiological factor in autism. *Knoblach and pasamnick (1975)* compared 50 autistic patients with two control groups , the first groups is neurologically abnormal and the second is normal group. They found that low birth weight, toxaemia, bleeding and neonatal complications were high in autistic children than in the normal group. The neonatal complications were similar in autistic children and the neurologically abnormal group. The only prenatal factor found by *Deykin and MacMahon (1980)* in autistic children was the use of medications during pregnancy. On the other hand *Mason-Brothers et al., (1990)* have founded recently in a comparison of prenatal and perinatal factors in autistic and non-autistic subjects , that there is no significant pathogenic factors among autistic group. They compared their results with the results of four previous surveys and found no significant difference except that increased viral illness during pregnancy in some cases (Table, 1,2 and 3).

However, these problems are not consistent , not specific and not useful as predictors of autism , they may not be related to autism and there is no evidence that these problems are indicators of useful strategies for the prevention of autism *(Nelson , 1990)*.

Table 1. Prenatal Factors in Autism *

Prental Factors	Utah Population				UCLA Data			Finegan & Quarrington		Deykin & MacMahon		Gillberg & Gillberg	
	Autistic Probands		Nonautistic Siblings		MI,	SI,	Norm,	A (TN=15),	S (TN=15),	A (TN=118),	S (TN=118),	A (TN=25),	S (TN=2
	N / Tn	%	N / Tn	%	%	%	%	%	%	%	%	%	%
Bleeding	40/225	18	9/61	15	12	43	24	20	7	13	9	44	8
Vaginal infection	7/220	3	2/59	3	5	0	3	7	0	16	15	27	8
Edema	21/221	10	7/59	12						18	18	48	24
Toxaemia	17/225	8	11/60	18	8	9	9			3	4		
Medication	109/221	49	32/55	58	49	82	41	20	0	44	37	40	16
Severe nausea	52/220	24	7/59	12									
Albumin/sugar in urine	21/217	10	7/59	12									
ABO/Rh incompatinility	32/158	20	3/40	8									

MI, Multiple incidence; SI, single incidence; Norm, normative data; A, autistics; S, sibling; C, control subjects; N, number of subjects with data positive; TN, total number of subjects; %, percent positive; NSD, not significant.