Article *NIMHANS Journal*

Descriptive Study of Infantile Autism

Volume: 07 Issue: 01 January 1989 Page: 77-81

Shoba Srinath, J Chowdhury, Ajit V Bhide, H S Narayanan &, Shivaprakash, - *Department of Psychiatry, National Institute of Mental Health & Neuro Sciences, Bangalore 560 029, India*

The Child and Adolescent Psychiatry (CAP) unit has its out patients thrice a week and the mental retardation clinic (MRC) once a week. The registrations on whom a detail work up is done number 800 per year in the CAP unit and about 1000 per year in the MRC. Nine per cent cases from the CAP unit are diagnosed as having psychoses. This includes categories 295, 296, 298, 299 of the International Classification Diseases - 9th revision (ICD-9). Chart I shows the sequences of movement of any case coming to the unit.

There were 31 cases diagnosed as infantile autism (IA) in the years 1981-84 as per the ICD-9. Of these only 17 fulfilled the criteria laid by the Diagnostic and Statistical Manual - 3rd edition (DSM-III). Hence the data pertaining to these 17 cases only were considered. In the other 14 cases, information was inadequate and they did not come for subsequent follow-ups.

Table 1 gives the age and sex distribution. When they presented to the clinic, they ranged in age from 2 ½ years to 14 years. Two of the children were 8 and 10 years of age when they came to the clinic and had already developed good eye contact, some verbal skills and socialization. The developmental history in these two children was typically that of infantile autism with the child acquiring eye contact gradually, learning to speak and play with others as he grew older. The male: female ratio of the clinic attendance in the CAP unit is about 2:1, whereas 15 to 17 cases here were males.

Table 1 - Autism, age & sex distribution

Table 1 - Autism, age & sex distribution

It is interesting to note that of the 7 children who presented before 5 years, six of them had parents who were educated and were earning a salary that placed them in the upper middle income group. The 7th child, was the son of a poor farmer who apparently developed normally till 2 years of age and then developed symptoms.

Most of the children were referred to us by doctors who had been caring for them. None of them originally came from Bangalore. Seven of the families shifted their residence wholly to Bangalore city for the sake of treatment.

When the income of the parents of these 17 children are compared with that of parents of other children brought to the clinic, a definite reversal is seen, with the higher income groups being more represented in the IA group.

It is worthwhile recalling here that Kanner [1] believed that autistic children came primarily from upper middle class professional families. Subsequent studies by Wing [2], however have shown that this distribution is a function of the abilities of these families to seek help, rather than being truly so in the population. As is evidenced even in this small sample, only families in the upper income bracket were able to move to Bangalore solely for their child's sake.

Three of the children were products of consanguineous union. There was one each of first cousin, uncle-niece and 2nd cousin marriages. There was a family history of mental retardation in two and seizures in once. There were two children in the sample who had seizure disorders, one with temporal lobe epilepsy and the other with febrile convulsions.

In 2 of the cases there had been antenatal complications like preeclamptic toxaemia and pregnancy assisted by hormones. In one case there was prolonged labour with breech presentation and the other delivery required instrumentation.

Flow diagram showing the sequence of movement of a case coming to the unit

Freeman and Ritvo [3] feel that studies which show antenatal and perinatal problems being more in autists, must be interpreted with caution, as the primary defect might be responsible for both disturbed antenatal period and for autism in the child. In summary they state that no specific pregnancy or delivery events have been definitely associated with autism.

Table 2 - Birth order of the 17 cases

Table 2 - Birth order of the 17 cases

It was interesting to note (Table 2) that 9 autists were the eldest child in the family, 2 were the only children and three were the youngest. I am not certain about the significance of the high number of elder children being autistic.

We follow Rutters multiaxial classification here, the fifth axis of which is meant for abnormal psychosocial situation. Compared to conditions like conduct disorders, there are practically no observations on axis five in infantile autism. When conditions like marital disharmony or anomolous family situations are noted, they are clearly seen as the consequence of having an austistic child. At one time even parentectomy was considered the treatment of choice, when it was widely believed that rearing patterns, attitudes and parental personality were the main causes of the problem, which we now know is not true.

Sixteen of the 17 children developed symptoms by 30 months. In one child the record says that symptoms developed first, after 2 ½ years. In 12, only motor milestones developed normally, in 4 all the milestones were delayed and in one the child developed all milestones normally till 2 years and then gradually developed symptoms. No event or illness occurred around the time the child had this set back. Most parents who had children with normal motor milestones believed that their child had just a speech delay and would soon get over it.

The symptomatology are divided into the following headings derived by Rutter from criteria of both Kanner and Creak,

(1) Impaired social development.
(2) Delayed and deviant language development
(3) Stereotyped behaviour

The different manifestation of social development seen in our 17 cases in the decreasing order of frequency were poor eye contact, as if deaf, exclude people around them and behave as if they are not there, solitary play, no descrimination of strangers and lack of anticipatory reaching. This apparent self absorption, appears as if they have 'tuned out', but Schopler and Dalldorf [4] talk of the child never 'tuning in' really.

Speech deviance took the form of echolalia mostly; limited vocabulary, no speech at all; odd sounds only, and sing-song speech. The stereotyped behaviour look the form of motor stereotypes - insistance on sameness, setting objects in motion, laugh in a particular way.

We had 3 children who would pick up a 6-10 inch twig, or stick, bend it into 2 unequal halves and then shake it in front of their face for long lengths of time.

Other features noted were, hyperactivity and preference for music, often one particular tune. One child simply wanted any music, not of any particular kind. Two children had unusual sensitivity to auditory and visual stimuli. Two other children both under 10 could light up a stove and chop vegetables. Following Kanner's original description for over 4 decades ago it was widely believed that autistics had some peak abilities. Studies in literature have shown fewer than 17% function at this peak levels. None of our autists had any outstanding abilities.

In one child who was seen just a couple of months ago, the parent reported that the child becomes very quiet for about a week -15 days, was found crying for no reason and was generally dull and very easy to manage compared to other times when he is restless. This quiet period comes on once in 1 ½ months. We have asked the mother to maintain a detailed diary and come regularly for follow-up. This periodic appearance of a quiet and weepy picture might be worth following -

as one possibility is that of an affective illness. Mood swings are known in autists.

By and large the clinical picture presented here is as described every where. Physical examination of these children did not reveal any abnormality. All these children had no stigma and appeared perfectly healthy.

Management

Of the 17 cases 6 were admitted into the inpatient unit. Generally for those autistic children who come from outside Bangalore admission is advised for continued evaluation and for charting of intervention. Investigations like Hb%, urine for abnormal amino acids was done routinely.

As regards a formal psychometric assesment, in most children only a Vineland Social Maturity Scale administration was possible. This shows deficit, social and communication scores with near adequate scores on locomotion. Except 4 cases all the others were referred to speech therapy, and 6 children were referred to behaviour therapy. Two cases were taken up for individual therapy sessions in the unit itself. Operant conditioning techniques was used in all cases for behavioural management. Parents were counselled routinely on these lines, actively show how to implement them and asked to do the same at home.

In 6 cases medication had to be prescribed for over activity and stereotypic behaviour. The medication used varied a good deal. Most children had an initial trail of haloperidol amphetamine or thioridazine. In 2 children who had been on medication for hyperactivity for over 6 months and 1 ½ years, a gradual reduction of the dosage found the child able to maintain the improvement and hence the medication was stopped.

Of the 17 cases 8 are in regular follow-up, the longest period being 3 years. The other 9 cases who did not come for follow-up, come from families who live outside Bangalore and letters to most of them enquiring after their well being and asking them to come for follow-up has been to no avail.

Of the 8 cases on regular follow-up, 6 cases are regularly attending speech therapy, and 2 of them are attending a special school for the retarded. Though there is no separate section for the autistic in these schools which cater to only the mentally retarded, the staff have agreed to take these 2 children and give them special attention.

As far as the parents of the 8 children are concerned 4 children have parents or atleast one parent who has reached the stage of acceptance and is not looking for a magic cure. Two sets of parents are still at the stages of denial and projection. One child's parents are actively looking for a home to send him to.

The improvements seen in the children are definite but at a very slow pace. Hyperactivity, socialisation, self help skills and vocabulary are the areas in which improvements are seen.

Parents of these children, though a small group, are actively going about to see if some kind of a special school can be set up in Bangalore.

In conclusion I add that this syndrome though uncommon is a phenomenon that occurs across cultures, and this paper is a summary of our clinical experience. What we have been trying to do is, given the constraints of time, personal geographical distribution of our patients and their social economic status. We are looking for ways of providing practical training programmes after assessments.

1.Kanner L, Autistic disturbances of affective contact
Nervous Child Page: 2: 217-250, 1943

2.Wing, Childhood autism and social class A question of selection
British Journal of Psychiatry Page: 137: 410-417, 1980
3.Freeman & Ritvo, The syndrome of autism Establishing the diagnosis and principles of management
Paediatric Annals Page: 284-341, 1984
4.Schopler E & Dalldrof J, Autism: Definition, diagnosis and management
Hospital Practice Page: 15: 64-73, 1980