Reports of multiple incidence of Asperger syndrome have suggested links between Asperger syndrome and autism. In this case study, we describe three siblings with Asperger syndrome based on the ICD-10 criteria. There was no family history of mental retardation or of autism. We propose that in some families, Asperger syndrome may occur as a distinct clinical entity and show no overlap with autism.

Asperger syndrome (AS; Asperger, 1944) is a developmental disorder widely regarded as a variant of autism. Opinion is divided about the extent to which it differs from autism. Asperger believed that it was a distinct disorder that was genetically transmitted. He reported that the characteristics tended to occur in families, particularly in fathers (Wing, 1981). In Wing’s series of 34 cases, 5 out of 16 fathers and 2 out of 24 mothers showed behaviour resembling that found in Asperger syndrome.

Although there are many reports of multiple incidence of autism among siblings, similar studies of siblings with AS are few. Burgoine and Wing (1983) described a set of identical triplets with AS. Since some of the features were more typical of autism, the authors presented this as further evidence in support of their view that autism and AS are closely related. Earlier, Van Krevelen (1971) described the presentation of AS and autism in one each of two members of the same family. One of the children in a family of three had the features of AS, while the youngest was diagnosed as suffering from autism. Bowman (1988) described a family in which the father probably had AS. One of the four sons had AS; two had autism; and one was normal. In a series of studies on children diagnosed as suffering from ‘schizoid’ personality, thought to be similar to those described by Asperger, Wolff and colleagues found increased prevalence of ‘schizoid’ traits in the parents (Wolff et al., 1988; Narayan et al., 1990). More recently, Gillberg (1991) described the clinical and neurobiological aspects of Asperger syndrome in six family case studies; many of the families showed a variety of autistic-like disorders ranging from ‘Asperger traits’ to autism. This, again, was presented as evidence in support of the hypothesis that autism and AS share common features and are closely related.

Operational criteria were not used for the diagnosis of AS in most of the above studies. In addition, there are no published reports of AS occurring in all the siblings of a family other than the one reported by Burgoine and Wing (1983). In this paper, the authors describe the presentation of the syndrome in three siblings using the ICD-10 (WHO, 1987) criteria for diagnosis.

Case Histories:

MH

M, aged 15 years, was referred for behavioural problems. He was born after a full term normal delivery. He sat at 7 months and walked at 9 months of age. His speech and language development was normal. He spoke single words well before the age of 2 years and sentences by three years. As he grew up, he was found to lack interest in other children and to prefer solitary activities. In his first grade at school, he was classified as emotionally impaired, and placed in a class-room for...
emotionally impaired children. As his academic performance was in the superior range, he was transferred back to a regular class-room in his fifth grade. He was referred for psychiatric evaluation at the age of six years and was treated with individual psychotherapy. Because of persistent social difficulties and problems of interaction with peers, he was re-evaluated at the age of 10 years and given a diagnosis of autism. Despite his social problems, he continued to be a bright student, achieving A and B grades. However, he had no friends. His main activity outside school consisted of playing with his computer and reading books on science. He had a great interest in numbers, and liked working on the various combinations of the digit 7. At times, he indulged in long monologues on the importance of this digit. He believed that there were seven heavens just as there were, seven levels of energy. His interest in science occasionally led him to perform experiments, some of which were rather difficult to understand. For example, he once tried to collect water from a sink into a small bottle, and believed that it was possible to do so by magnetism. He was frequently teased by his class-mates. For example, he would lick milk off a plate when asked to do so by other children. In addition, he was markedly clumsy. He walked with an awkward gait, and, according to his mother, learned to tie his shoe-laces only when he was 13 years old. His medical history was negative.

The presenting symptoms at the time of this referral consisted of persistent hand-washing and irritability of about six months’ duration. His sleep and appetite were also disturbed. He would wash hands as often as he could, to the extent that the skin had started peeling. He said he was afraid of both catching and giving germs to other people and felt guilty about depriving other people of their share of toilet paper. He tried to stop himself from washing his hands and also worrying about germs, but felt unable to do so.

On psychiatric examination, he looked aloof and withdrawn. He made no eye contact throughout the interview. He spoke in a low monotonous voice with little inflection, but appeared animated while talking about science and numbers. He showed a preoccupation with minute details; for example, when asked how far he lived, he became visibly anxious trying to give the exact distance in miles. He showed a similar preoccupation with other details; for example, when describing a situation where he was cornered by his class-mates, he was unable to describe what had actually happened; instead, he got preoccupied with the number of corners the room had! He denied any persistently depressed mood or any suicidal ideas. He admitted, however, that he washed hands repeatedly and was preoccupied with dirt. There was no evidence of any auditory or visual hallucinations. He was well-oriented in time, place and person. His physical examination was normal.

On the Wechsler Intelligence Scale for Children-Revised (WISC-R, 1974), his Verbal IQ was 105; Performance IQ 91; and Full scale IQ was 91. On the Facial Recognition Test (FR T; Benton et al., 1983), which is a measure of recognition of unfamiliar faces, he was severely impaired. On the Category Test (CT; Reitan & Davison, 1974; Spreen & Strauss, 1991), which reflects such problem solving skills as abstraction, concept formation, and mental flexibility, he was mildly impaired; while on the Continuous Performance Test (CPT; Loong, 1988), which is a sensitive test for assessing sustained attention and mental lapses, he scored within the normal range. On the Autism Behaviour Checklist (Krug et al., 1980), he was given a score of 74 by mother and 43 by father.

Based on the above history and the mental status examination, he was given a DSM-III-R (1987) diagnosis of Obsessive-Compulsive Disorder on Axis I and Pervasive Development Disorder Not Otherwise Specified (PDDNOS) on Axis II. On the autism symptom checklist of the DSM-III-R, he met the following five criteria: markedly abnormal social play; gross impairment in the ability to make peer friendships; abnormal nonverbal communication; impairment in the ability to sustain conversation; and a markedly restricted range of interests. The diagnosis of Asperger syndrome was based on the ICD-10 criteria as follows: lack of any clinically significant general delay in language or cognitive development; qualitative impairment in reciprocal social interaction as in autism; and a restricted pattern of interests and behaviour. The presence of clumsiness, although not an established feature of the syndrome (Ghaziuddin et al., 1992), further supported the diagnosis.

SH

S is the second son. He is 13 years old and is in regular education.

Developmental history revealed an uneventful pregnancy and delivery. His speech and language