Aarti, a 2 yrs 10 month old child a known case of Down syndrome presented with speech delay and after consultation with the family doctor was put on speech therapy with a senior therapist. The response to therapy was poor. The mother noticed some abnormal and repetitive behaviors. **Diagnosis : Down syndrome with Autism spectrum disorder**

Aakash was enrolled for speech therapy at 3 years of age, on detailed evaluation he was found to have fine motor and sensory perceptual deficits and started OT sessions. Medical evaluation showed subtle dysmorphism with mild frontal bossing, high arched palate, mild pectus excavatum, long and slender fingers, joint hypermobility and flat feet. He had a high myopic refractive error and bilateral lens subluxation. At 8 yrs, he has severe anxiety & inattention. **Diagnosis : Homocysteinuria**

Shree was diagnosed as West syndrome at 2 yrs 9 mths, his milestones were delayed with independent walking at 26 months and few monosyllables with meaning by 24 months. His convulsions decreased in frequency by 5 yrs, subsequent follow up showed emergence of motor stereotypies, echolalia, aggression, hyperactivity, inability to follow instructions. Now he is 9 yrs old with severe behavioural problems. **Diagnosis : West syndrome with GDD & ASD**

Children with current reported epilepsy/seizure disorder had depression (8%), anxiety (17%), ADHD (23%), conduct problems (16%), developmental delay (51%), ASD (16%), and headaches (14%) Children with seizures were at increased risk for mental health, developmental, and physical co-morbidities, increasing needs for care coordination and specialized services. (A National Profile of Childhood Epilepsy & Seizure Disorder, Shirley A. Russ, Kandyce Larson, Neal Halfon)

An important observation in all the above cases is the presence of behavioural disorders in multiple medical, metabolic, neurological and genetic conditions and the behavioral interventions in them have been completely missed.

Abnormal behavior in a child is usually considered as actions harmful to the physical, emotional or social well being of the child, family members or others. It also constitutes the behavior interfering with the child’s general and intellectual development and this behavior could be destructive to the society in general, defying the laws of the land. **Abnormal behavior is defined as atypical behavior which is outside the range of normal human behavior as defined by the culture or community.** It also constitutes maladaptive thoughts or behavior and is usually unjustifiable.

Behavioral problems in children are increasingly prevalent among all sections of society and behaviours in children are becoming alarmingly dysfunctional. Among them, aggression with or without hyperactivity is a significant disciplining concern for parents and frequently needs to be addressed. In mild cases it could be just a behavioural issue and a temporary symptom in the normal developmental course, however needs evaluation if it persists and progressively increases in severity.
Many disorders could be associated with aggression and poor impulse control, but the common conditions in children include attention deficit hyperactivity disorder, oppositional defiant disorder, conduct disorder, Tourette's disorder, mental retardation, autism spectrum disorder and children with disabilities or other chronic medical conditions. The causes in Adolescents and young adults are more related to psychiatric disorders and substance abuse and may not be part of regular paediatric practice. Organic brain damage and personality disorders could also present with disruptive behaviours as well as conflict with authority in all social settings.

**CLINICAL PRESENTATION**

Children with behavior problems are referred for hyperactivity, stubbornness, aggression, poor school performance, school phobia and peer problems. It is important to note that many psychiatric conditions like depression, generalized anxiety disorder, oppositional defiant disorder may present early during childhood and may be missed completely. The abnormal behaviours need to be followed with proper history taking to understand the duration and severity of the problem. History taking involves the family history of any psychiatric disorder, environment around the child, parenting pattern, school, academic history, friends, any recent event etc. Habit disorders and adolescent problems usually will present differently than children.

Before we call a behavior abnormal the following points should be considered:
- Is it a consistent pattern or an isolated episode?
- Is it the only problem or a part of the whole spectrum, say for example Downs syndrome?
- Is it a part of a developmental abnormality?
- Is it present since infancy or has recently evolved?
- Is it a temperament or a personality trait?

At this point it would be helpful to be sure if the clinician is dealing with a transitory behavioral problem or a psychiatric condition as the management of the same would vary significantly.

**WHAT CAUSES BEHAVIORAL PROBLEMS?**

The causative factors for Behavioural problems can be broadly categorised as follows:

- Hereditary & Constitutional factors
- Physical or Organic factors
- Cognitive factors
- Emotional factors
- Environmental factors

**ASSESSMENT**

- Diagnostic criteria for ODD or CD of the Diagnostic and statistical manual of mental disorders (fifth edition) DSM V or ICD – 10 classification is applied for the diagnosis through meticulous interviews with parents or caregivers.
- Psychological evaluation to assess cognitive ability and general comprehension done using structured tests for IQ i.e WISC, WAPIS, KBI etc.
- Behavioral assessment using of structured and semi-structured questionnaires and rating scales for assessment of symptoms and tracking progress (Connors Rating Scale, Child Behavior Checklist, Personality Questionnaires etc).
- Psychiatric evaluation to rule out depression, generalised anxiety, bipolar disorders, drug abuse etc
INTERVENTION

Prevention seems the most important early intervention in children at risk for developing Behavioural problems, the risk stratification can be done based of multitude of risk factors like genetic influences, presence of parental psychopathology, adverse environment, temperamental issues seen in early childhood and presence of comorbidity. These at risk children need to be monitored closely and parents should be made aware of early signs of aggression and disruptive behaviours. The focus for preventive approach is based on behavioural modification strategies for parents and proactive classroom management of ADHD, Learning problems and behavioural concerns at school.

Psychopharmacological Treatment

Methylphenidate and Atomoxetine can be used and helps in most of the cases when disruptive behavior is associated with ADHD. Severe aggressive behaviors improve with Risperidone and need to be continued over a period of time. Mood stabilizers such as Carbamazepine also helps in some cases and can be use for long periods. Clonidine, Lithium and typical & atypical antipsychotics have been found to be helpful in multiple studies in adolescents and adults, however they need to be administered with the help of a psychiatrist. Side effects, including sedation with the secondary cognitive effects, hypotension, extrapyramidal symptoms, tardive dyskinesias, and obesity, should be weighed against the possible benefits of the pharmacological treatment. Anti-depressants and anti-anxiety medications can be used in children if needed under supervision. Given the high risk for substance abuse in youths, caution should be exercised when prescribing stimulants and anxiolytics to this population. Regular followup and compliance is difficult in most of the cases and drop out and relapse rates are much higher in these children.

Non-pharmacological interventions : Behavioral

Individual counseling for adolescents and young adults using various techniques to enhance coping skills, anger management, stress management, assertiveness training, social skills etc. Cognitive therapies can be used effectively in this age group which aim at changing the way an individual interprets stressful situations in life and resetting the various distortions in self and social perception. Counselling needs to be done by professionals and need to be followed up over 3 to 6 months. Acceptance of self, understanding of situations and people and getting rid of unrealistic expectation help the adolescents develop healthy coping and problem solving skills.

Parental Counseling is the mainstay of the treatment plan and usually is done alongside individual counselling of the child. In case of younger children, behavioural modification methods are taught to the parents which aim at gradual shaping up of the disruptive behaviours and aggression. These methods have to be taught and monitoring with realistic goal setting and regular followup for showing effective results. Family sessions may be useful in cases of multiple caregivers or extended families as commonly seen in our society. Long term follow up and regular sessions show some improvement in all age ranges and all levels of severity. It is important to have highly structured specific goals at the beginning of the sessions and a regular review during the course of the counselling.

School Based Intervention with the support of counsellors and teachers. Early detection of academic problems, hyperactivity, aggression and social isolation could reduce the negative experience and intervened. Bullying, aggression, defiance, stubbornness and rejection of authority could be
picked up and notified with focus on positive strategies to be carried involving parents, teachers, principal and counselor. Regular followup is needed for at risk children over a period of time.

Multidisciplinary Team: Role of other professionals like play therapist, occupational therapist, special educator if needed should be sought and the Physician or Paediatrician plays a pivotal role in monitoring the intervention. In severe cases residential facilities are available where a structured program involving multimodal approach is applied and follow up is done periodically. These facilities are available in few urban cities only and exist as a part of de-addiction programs and are quite expensive. Children and adolescents with severe Conduct problems and antisocial behaviours are found to be resistant to treatment and have a high failure rate. Early parental intervention at pre-schooler levels is found to be more effective in few studies. The key to the effective management is early treatment with parental intervention programs and support groups.

TAKE HOME MESSAGES

• Behavioral problems could be part of various medical conditions and can be identified by a detailed behavioural history.
• Behavioral problems are on rise due to changes in family dynamics, loss of support system, broken families, competitive environment etc
• Childhood aggression, hyperactivity, anxiety, depression are quite common and in mild cases counselling is of immense help if started early.
• Parental counselling and acceptance is the mainstay of behavioural intervention and need to be done simultaneously.
• Medications can be used under supervision, however compliance could be poor as parents usually refuse to give medications, hence the role of counselling and behavioural intervention becomes even more important.