Childhood Apraxia of Speech

WHAT IS CHILDHOOD APRAXIA OF SPEECH?

Childhood Apraxia of Speech (CAS) is a neurological motor speech disorder that affects a child’s ability to make accurate movements for speech. Children with CAS know what they want to say but have difficulty planning and coordinating the muscle movements of the lip, jaw, and tongue in order to produce words clearly.

POSSIBLE CAUSES OF CAS:

CAS can occur in the following conditions:

- Neurological impairment (i.e., stroke and brain injury)
- Genetic disorders or syndromes (i.e., Autism, Fragile X, and Epilepsy)
- Idiopathic (i.e., in many CAS cases, the cause is unknown)

TERMINOLOGY

‘Childhood Apraxia of Speech’ (CAS) has since been the preferred term over the other terms that were originally used in paediatric literatures such as ‘Developmental Verbal Dyspraxia’ (DVD) and ‘Developmental Apraxia of Speech’ (DAS).

The term ‘developmental’ is replaced by ‘childhood’ to differentiate the disorder from the adult form and also to denote that it does not get better or cure with age, without treatment.

HOW COMMON IS CAS?

Data on the number of children with CAS is limited. Over the years, there is an increase in the number of children diagnosed with CAS. Some factors that may contribute to the rise include:

- Increased awareness of CAS
- Increased research on CAS
- Early evaluation and identification of CAS in younger children

SIGNS AND SYMPTOMS OF CAS?

Some signs or symptoms associated with CAS might include:

- Difficulty sequencing and stringing syllables to make words
- Minimal babbling
- Difficulty with multisyllabic words
- Inconsistencies in speech (e.g., saying a word differently each time)
- Impaired prosody (e.g., excessive or equal stress on the sounds in words)
- Consonants and vowels distortions
- Omissions (e.g., omitting sounds at the beginning of words)
- Articulatory groping or effortful attempts make words
HOW IS CAS TREATED?

Research shows that frequent and intensive one-on-one speech therapy sessions of 3 to 5 sessions per week are the most effective for children with CAS. Treatment focuses on improving the planning and coordination of the muscle movements to produce speech. Oral motor exercises that strengthen the muscles will not help children with CAS as their difficulty is in coordination, not strength.

Speech therapists may use multi-sensory feedback such as verbal, tactile or visual cues (e.g. mirror) to support the child’s learning. Some may be taught to use sign language or an augmentative and alternative communication system (AAC) such as Picture Exchange Communication System (PECS) or devices that produces speech.

Children with CAS require a lot of practice opportunities in the clinic setting as well as at home to maximise their learning in training their brain to produce accurate speech.

REFERENCES