

Differentiating Acquired Childhood Aphasia with Developmental Language Disorders

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Abstract

Acquired Childhood Aphasia (ACA) is a condition associated with sudden onset of language disturbances. This language disturbances fare as a consequences of cerebral resulting in regression of previously acquired skills. This makes the condition markedly different from developmental language disorders (DLD). The latter is associated with a delay in acquiring speech milestones, ACA arises post-acquisition of early language skills. ACA is often associated with a specific cause such as brain tumours, traumatic brain injuries, infections, unlike the developmental language disorders which may sometimes be associated with a definite cause and sometimes associated with a condition of idiopathic origin. Symptoms may be similar in both the conditions after a particular point of time. This can lead to more confusions and complications in diagnosis. As the assessment methods for ACA differ fundamentally from those for DLD, as the focus in ACA would be on evaluating lost language functions while the focus is on quantifying and eliciting details about the delay in DLD. The comorbid conditions are also given weightage in both these conditions Intervention typically involves is based on the conditions, traits and comorbid conditions in these two conditions. The prognosis of the two conditions are may vary. Considering all these factors, the current paper differentiates acquired childhood aphasia with that of developmental language disorders.

Keywords: Symptom Manifestation; Cause; Prognosis; Regression; Assessment

Abbreviations

ACA: Acquired Childhood Aphasia; DLD: Developmental Language Disability; TBI: Traumatic Brain Injury; SLPs: Speech Language Pathologists; WAB: Western Aphasia Battery; BDAE: Boston Diagnostic Aphasia Examination; CAAST: Children's Acquired Aphasia Screening Test; AAC: Augmentative and Alternative Communication.

Introduction

Acquired childhood aphasia (ACA) of speech can be defined as a sudden language disturbance as the result of a cerebral insult in a child who had previously developed language skills normally. The term congenital aphasia was first used by Vaisse in 1866 [1]. Previously ACA was also termed developmental aphasia, or dysphasia, these are used not commonly used

today because we realize that the clinical features as well as the neuroanatomical correlates are different for the child with a developmental language disability (DLD) and an ACA. The neuro anatomical correlates are different for the child with DLD and an ACA. Children with DLD are those who had delayed speech and language milestones unlike children with ACA. It is observed [2], “brains which show no pathology in the usual sense of the term may yet deviate from the normal; such deviations, which involve language Processing and output components may account for severe language delay in children. Except for their language delay, majority of the children with DLD do not present clear cut hard sign evidence of CNS pathology like motor disabilities, sensory dysfunction, etc.

Scientifically, ACA is the term given to refer to a cluster language deficit that may consequent to brain lesion sustained after a period of normal language development. The aetiology may be classified as tumour, traumatic brain injury (TBI), abscess, infection or epilepsy. These injuries disrupt the brain’s language centres, leading to difficulties in expressive, receptive and cognitive components of language. The symptom manifestation is dependent on factors like the developmental milestones accomplished before the acquired language disorder starts, the type of language disorder exhibited by the affected children, and loci of lesion and type of the epileptiform activity would decide the clinical manifestation [3].

The prime domains affected in acquired childhood aphasia includes speech production, comprehension reading and writing. In certain conditions, it may selectively affect one domain to a larger extent leaving the other domains intact like Landau-Kleffner Syndrome [3]. The symptoms may resemble some non-fluent aphasia like Broca’s aphasia at times when expression is solely affected [4]. In a nutshell there is a high likelihood that the in ACA could follow the pattern of deficits in adult non-fluent aphasia [5].

The assessment of ACA differs markedly from that of DLD. While both conditions involve language difficulties, ACA assessments focus specifically on the language abilities that have been lost due to an acquired injury. The minimum for diagnosing ACA is assumed to be around 2 years conventionally as the sentence development is considered to be a true milestone and has greater relevance. Though the emphasis is on acquisition of milestones, these factors themselves are not the sole factors for diagnosing ACA unlike the DLD where the delay in developmental milestones are paid more emphasis [6].

Speech Language Pathologists (SLPs) administer a holistic test battery which assesses receptive and expressive language, auditory verbal comprehension, naming, repetition,

Apraxia component, cognitive tasks- in some cases executive functions as well. Many of the tests for adults have been standardized for children like Western Aphasia Battery (WAB), and Boston Diagnostic Aphasia Examination (BDAAE)) and some tests are exclusively developed for children with acquired language disorders such as The Children’s Acquired Aphasia Screening Test (CAAST) 93-7 years range) [7]. These assessments aim to identify the specific deficits and impaired functioning of several domains arising from the injury and inform treatment planning. In contrast, assessments for DLD are typically based on developmental milestones and may not account for the unique challenges presented by an acquired condition.

The pediatric recovery is inconsistent, though factors like neuroplasticity may facilitate recovery, the pattern of recovery is considered to be highly individualistic and depends on the severity of the symptoms [8]. Therapy when accompanied with neuroplasticity might evoke more improvement in children [7]. Speech therapy focuses on upliftment of speech and language deficits like overall fluency, naming, word retrieval, sentence construction, etc. Few techniques commonly used are Semantic feature analysis, Phonological feature analysis, Low and high tech Augmentative and Alternative Communication (AAC) devices, etc. Involving family members in the therapeutic process is essential, as it helps reinforce skills and strategies at home, fostering a supportive communication environment. Age is not a factor that affects the prognosis. The persistence of paraphasias across the course of therapy is a poor prognostic indicator. Children who develop aphasia as a consequence of TBI are assumed to recover fast and completely compared to children who acquire ACA as a consequence of stroke [8]. Yet again, the recovery totally depends on the severity of the aetiology, the neural plasticity and the effectiveness of the intervention.

The long-term implications of ACA can differ widely from child to child. Continuous monitoring, support and progress tracking are crucial to facilitate ongoing language development and academic success. Collaboration among the multidisciplinary professionals and families can create a comprehensive support network that addresses the child’s needs holistically. Ongoing research into the effectiveness of various treatment modalities continues to shed light on best practices for managing ACA, emphasizing the importance of tailored intervention strategies.

Conclusions Acquired Childhood Aphasia of speech imposes a significant challenge while dealing with child language disorders, it is often confused with developmental language disorders due to its convergence in the symptoms, however it is to be noted that it is distinct from developmental language disorders. This accurate differentiation is for deciding the plan of action including assessment and therapy. The impact

of ACA is found to be wider as it is associated with speech deficits, affecting cognitive-communication skills and social interactions, thus the goals addressed in therapy may be strikingly different. Hence the current study becomes important in differentiating the two conditions.

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