

Terminological Confusion in Learning Disorders

“Come, let us go down, and confuse their language there, so that they will not understand one another’s speech.’ So the Lord scattered them abroad from there over the face of all the earth”: Genesis 11: 7, 8

Specific learning disorders (SLD or LD) as per Diagnostic and Statistical Manual-5th edition (DSM-5) is characterized by persistent and impairing difficulties in academic skills. These are diagnosed after ruling out other underlying causes for scholastic backwardness.

There is terminological confusion in this area due to the use of two terms – ‘learning disorder’ and ‘learning disability’. Nelson’s Textbook of Pediatrics, 20th edition and many textbooks of Psychiatry use the same nomenclature and sub classification as in DSM-5.

Consensus Statement of Indian Academy of Pediatrics (IAP) uses the term learning disability, and states its equivalence to SLD [1]. In the United Kingdom, learning disability is the term used to denote mental retardation (intellectual developmental disability) in ICD-11 and DSM-5 [1]. Few other Indian authors also use the term learning disability instead of SLD [2,3]. LD probably affects around 5-10% of school-going children [1]. But difference in case definition has led to variation in reported rates in India [4,5].

To complicate the situation further, the newly enacted Revised Persons with Disability (RPWD) Act also uses the term ‘Learning disability’ for ‘Learning disorder’ but interventions and disability provisions for two conditions are different.

Due to this confusion, we suggest that medical personnel from all specialties stick to a single term ‘Specific Learning disorder’. The term Specific Learning Disability is best abandoned as its meaning differs in different contexts. Otherwise, we may end up in a confused scenario where we “will not understand one another’s speech.”

VARSHA VIDYADHARAN* AND HARISH M THARAYIL
*Department of Psychiatry,
 Govt Medical College,
 Kozhikode, Kerala, India.
 drvarshavinu@gmail.com

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EXPERT’S REPLY

We appreciate the authors’ effort for highlighting the terminological confusion in Learning Disorders. We have following observations:

1. To summarize the terminology ‘landscape’, the main agencies using the term ‘Specific Learning Disorder’ include: DSM-5, ICD-11, and Nelson’s Textbook of Pediatrics; and the agencies that use the term ‘Learning Disability (LD)’ include: American Academy of Pediatrics, and the Revised Persons with Disabilities (PWD) Act 2016. Thus, both the names are being extensively used by crucial decision-making agencies. Supporting either of the names at this juncture may not be appropriate.
2. It should be noted that LD involves certification processes and the decision on terminology, thus requires a consensus. If any alternate name is formalized without a consensus, it could create more confusion. The decision needs to be taken by organizations in consultation with relevant Government authorities.
3. The term ‘Learning Disorder’ is used interchangeably with ‘Learning Difficulty’ in spite of the technical demarcation. However, a ‘Learning Disability’ must meet the DSM-5 criteria and the diagnosis is based on a combination of the student’s educational history, a

description of classroom observations and standardized psychometric measures, after ruling out the differential diagnoses. This is the critical point in our view, which needs repeated emphasis, perhaps more than the terminological confusion.

SAMIR HASAN DALWAI

Convener, National Consultation Meeting for Developing IAP

*Guidelines on Neuro Developmental Disorders, New Horizons
Child Development Centre, Mumbai, Maharashtra, India.
samyrdalwai@enablemychild.org*

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Genetics-based Risk Stratification of Pediatric Acute Myeloid Leukemia in India

We read with interest a recent paper by Tyagi, *et al.* [1] on cytogenetic profile of Indian children with acute myeloid leukemia (AML). The authors have described outcomes as per ENL classification [2]. They have reported event-free survival (EFS) of <35% in all risk groups [1]. Here we discuss few other Indian studies and our experience focusing on risk stratification and outcomes.

In a study of 51 children, cytogenetics could be done in 21 children (favorable 10, intermediate 4, high-risk 7). EFS was 28.5% (favourable 20%, intermediate 50%, high-risk 20%) [3]. In another study of 65 children with AML, cytogenetics was available in 44 (favourable 18, intermediate 14, high risk 12). EFS was 28% (favourable risk 62%, intermediate risk 30% and high-risk 12.5%). Only two children with high-risk disease underwent matched sibling donor (MSD) hematopoietic stem cell transplant (HSCT) [4]. In another study of 247 patients (favourable 12%, intermediate 70% and high risk 18%), 109 opted for therapy of which 23 were children (4 underwent HSCT for non-favorable AML). Overall survival for children was 70% at median follow up of 7 months [5].

From 2015 to 2018, we diagnosed 24 children with AML, and cytogenetics and molecular genetics could be performed for 21 (favourable 13, intermediate risk 4, high risk 4). Children with acute promyelocytic leukemia (APML) were treated with arsenic and all-trans retinoic acid based therapy. All other children were treated with two courses of 3+7 induction therapy followed by four courses of high-dose cytarabine. Children with intermediate- and high-risk were offered allogeneic HSCT.

In favorable category, all five APML patients are alive and in complete remission (CR) 1; of eight children with *t*(8,21) translocation, five are alive in CR1 (one child with minimal residual disease underwent haploidentical HSCT). Three children relapsed one refused further therapy and remaining 2 underwent MSD HSCT, but both relapsed and died. Ten are alive in CR1 at median follow-up of 26 months. In intermediate risk category, out of four patients, three patients achieved CR1 and one patient died of refractory disease. One patient underwent haploidentical HSCT. One child relapsed and two are alive in CR1. In high-risk category, three patients achieved CR1 and one had refractory disease. One with FLT3-ITD refused HSCT, who relapsed later and died. Remaining three underwent haploidentical HSCT, of whom one with refractory disease relapsed and died. Two are alive in CR1. Overall, 67% children are alive in CR1 at median follow-up of 31 months (favourable 77%, intermediate 50%, high risk 50%). Five underwent HSCT in CR1 based on risk stratification of which four are alive and disease-free.

Our small series highlights that cytogenetic-based risk stratification can help improve outcomes by offering HSCT in non-favorable AML.

ROHIT KAPOOR AND SATYA PRAKASH YADAV*

*Department of Pediatric Hemato-Oncology
and Bone Marrow Transplantation,
Medanta The Medicity, Gurgaon, India.
satya_1026@hotmail.com

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