

JULY-SEPTEMBER 2024



DPT



DEVELOPMENTAL PEDIATRICS TODAY

Your monthly booster for developmental and behavioural news!

The Official Newsletter of the IAP Chapter of Neurodevelopmental Pediatrics



Aryan Gayan , 6 years. Male ,
Jorhat, Assam

Chief Editor : **Dr Samir Dalwai**

DPT IN A GLIMPSE

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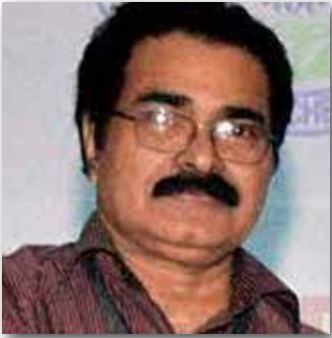


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INTERACTIONS – THE EDITORIAL

DR SAMIR H DALWAI

As all of us continue to deal with the deluge of children and families with neuro developmental and behavioural problems, seeking advice, assurance, and guidance, the role that the IAPian plays in the community has assumed far greater significance. To empower the IAPian to meet this challenge successfully has been the motto of this Chapter of Neurodevelopmental Pediatrics and to this end we all continue to labour.



Human Engagement Powers Learning! And this is achieved on an annual basis at the National Conference of Developmental Pediatrics (NCDP) every year. This year another super successful conference, the 21st was held in Bangalore under the esteemed patronage of our dear National IAP President, Dr. G V Basavaraja supported by Dr. Adarsh, Dr. Sanjay, Dr. Nirmala, Dr Arun and a team of local experts working diligently, ably supported by our Chapter Office Bearers, Dr Leena, Dr Shambhavi, Dr Kawaljit, Dr Narayanan, Dr Zafar, Dr Lata and Dr Somasundaram and others. To them, we owe a debt of gratitude as the event, held at the glorious Indian Institute of Science, hosted over five hundred learners and sharers.

The Indian Journal of Developmental and Behavioral Pediatrics continues to grow under the guidance of Dr. Zafar Meenai and the Board of Advisors. We encourage all of you to publish your work in the journal.

Finally, the entire DPT team deserves a round of applause for bringing out another beautiful edition here. The applause is most resounding when you read and enjoy this!

Developmentally yours,

Dr Samir H Dalwai

Chief Editor

Developmental Pediatrics Today



JOINT ATTENTION - FROM THE OFFICE

Greetings !

In our country the monsoon months make for heavier Pediatric practice than usual with a surge of infections and the planning of the festive season too begins now.

Come October and it is Cerebral Palsy day on the 6th October. The theme 'Uniquely CP' this year embodies what should be our thought while working with children with CP. Inclusion in society without judgement or sympathy and respecting their uniqueness would probably make life easier for children and adults living with CP.

A welcome change over the years has been that Cerebral Palsy is now an oft discussed topic in common man circles compared to the complete lack of awareness even in our own medical circles till a few years ago. Apart from reading about it for a long case in the medical exams most were not equipped to dealing with these children, their problems , co morbidities, prognosis, and most of all counselling the parents about the same. Working with these children and their families closely makes us squirm at our own society's attitude towards them. Many of our patients would bring cakes and celebrate their childrens' birthdays at the centre as they said neighbours and classmates would not participate acceptingly in their birthdays at home. It is indeed a long way to go where we as advocates of these children should strive to accept them ourselves and guide society to accept and include our children with CP by spreading more awareness .

Working in rural Maharashtra on a project for children with CP over the last decade has made me realise that though we may provide facilities to the children there is so much more involved that we as a society need to work towards. We can provide wheelchairs but we need to have accessible roads, we can provide IEPs and inputs for their education but we need to have accessible and tech savvy schools with proper resources and trained educators to facilitate and teach them. We can reach out half way but society and the system needs to make changes to include them and we need to create awareness to bring about this change.

It is encouraging to see institutes like IIT working towards indigenous wheelchairs with useful customised changes in the recent years; hopefully making them more affordable in the future. We need more and more inter disciplinary collaborations to make useful and economical technology available in our country to make the life of children with CP more comfortable offering them more accessibility and making our goals of management practically attainable.

Do write in with your views and hoping to read about lot of varied activities across the country for CP awareness day...Happy learning and enjoy working....

Dr Leena Srivastava

Chairperson

IAP Chapter of Neuro developmental Pediatrics

JOINT ATTENTION

MESSAGE FROM SECRETARY



Dear Members,

I am delighted to present to you the third edition of our DPT Newsletter for the quarter of July, August, and September. As the Chapter Secretary, it brings me great joy to hear the positive feedback we've received about our new format. Many of you have shared how much you appreciate the digital notebook style of the newsletter, making it easier and more engaging to read. Our dynamic team has worked hard to bring this to life, and your support means a lot to us.

This quarter has been particularly eventful, highlighted by the successful 21st National Conference of our Chapter, held in Bangalore. The conference was organized under the esteemed patronage of Dr. Basavraja with great dedication by Dr. Adarsh, Dr. Sanjay, Dr. Nirmala and Dr Arun. The event, held at the prestigious Indian Institute of Science, welcomed over five hundred registrations and was a memorable experience for all attendees.

We are also thrilled to share that our Indian Journal of Developmental and Behavioral Pediatrics is gaining momentum under the leadership of Dr. Zafar Meenai. The journal has recently been indexed in Google Scholar and Index copernicus , a significant milestone in our journey towards greater recognition and reach.

Additionally, our Fellowship Program has made great strides this year, in associating with the Indian College of Pediatrics (ICP), a respected body under the IAP. This year, we conducted the common entrance exam for the fellowship program, which saw an enthusiastic response with nearly all centers filled. The Fellowship in Developmental and Behavioral Pediatrics continues to flourish, reflecting our commitment to high-quality education and training.

I extend my heartfelt best wishes to the entire DPT team for bringing out another succinct and engaging read. Thank you for your continued support, and I hope you enjoy this edition!

Warm regards,

Dr Shambhavi Seth

Secretary

IAP Chapter of Neurodevelopmental pediatrics

2024-25

Dr. Pubali Deka

Social Communication

(From the States and State Coordinators)
Academic and awareness activities done across the country

National Conference of Developmental Pediatrics

21 National Conference of IAP Chapter of Neurodevelopmental Pediatrics, held at Indian Institute of Science, Bengaluru, Theme : Innovate, Inspire, Ignite for Developmental and Behavioral Excellence





RACE module conducted as a Pre Conference Workshop at PCNI 2024 ; Annual Delhi Conference , at Max Super Speciality Hospital Saket on 20th September , 2024



Cerebral Palsy Day celebrated at SGRRIM & HS, Dehradun



CME on “ASD : A Paediatrician’s Perspective” in collaboration with IAP Hazaribau



Workshop at 5 th Central Zone NEOCON held at MGM Medical College , Indore - An Interactive session on Early management of Behavioural Issues



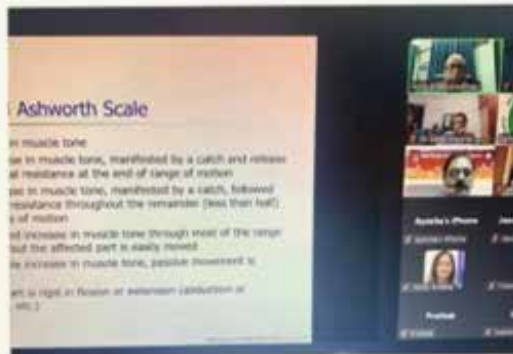
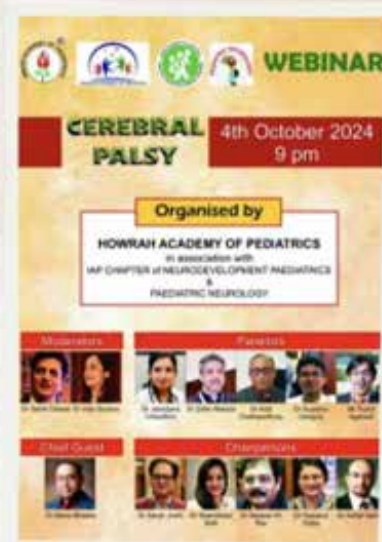
Webinar on the occasion of World Cerebral Palsy Day in collaboration with Manipal Hospital , Bengaluru



CME on ASD - A Case Based Approach in collaboration with IAP Dhanbad



Webinar on Cerebral Palsy organised along with Howrah Academy of Pediatrics



Cerebral Palsy Day celebrated at Gurgaon, New Delhi



Cerebral Palsy Day celebrated at Chennai, Tamil Nadu



PINCER GRASP – JOURNAL SCAN

Dr. Shweta Nair

Consultant Developmental Paediatrician
Khushi Child Development Center
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**1. Title: Early Stimulation and Enhanced Preschool: A Randomized Trial**

Authors: Costas Meghir, PhD; Orazio Attanasio, PhD; Pamela Jarvis, PhD; Monimalika Day, PhD; Prerna Makkar, MPA, Jere Behrman, PhD; Prachi Gupta, MA; Rashim Pal, PhD; Angus Phimister, MSc; Nisha Vernekar, MSc, Sally Grantham-McGregor, FRCP, MD

Journal: Pediatrics**Date of Publication:** May 2023

Citation: Costas Meghir, Orazio Attanasio, Pamela Jarvis, Monimalika Day, Prerna Makkar, Jere Behrman, Prachi Gupta, Rashim Pal, Angus Phimister, Nisha Vernekar, Sally Grantham-McGregor; Early Stimulation and Enhanced Preschool: A Randomized Trial. Pediatrics May 2023; 151 (Supplement 2): e2023060221H. 10.1542/peds.2023-060221H

Introduction:

Millions of children are at risk for developmental deficits in low and middle-income countries (LMICs). Studies on psychosocial interventions and their short and long term benefits are few, especially from India. Interventions have had benefits in math and language. However, a survey of 298 Indian preschools found generally poor

quality. Although short-run impacts of some interventions fade, some rigorous studies with long-term follow-ups found later benefits in educational attainment, reduced crime, and increased income.

Whereas nutritional interventions are most effective in <2 years, best ages for psychosocial interventions are unclear.

Methods:

The study consists of 2 sequential open label cluster randomized controlled trials in Odisha.

Early Trial:

192 villages were initially randomly assigned to 4 groups – control, nutritional education (NE), home-visiting stimulation plus NE (HV – done by trained personnel) and similar stimulation in group sessions (≤ 8 children) with parents plus NE (GS). Inclusion criteria were children aged 7-16 months, with no disabilities, ≤ 8 per village. After 2 years, at age of 31 – 40 months, there were no effects of NE and similar positive benefit for HV and GS in cognitive and language development.

Late Trial:

After the early trial, the intervention children attended the ICDS preschool Anganwadi centers (AWCs). The HV and GS groups were combined into ES (Early stimulation). All

the villages were rerandomized to enhanced preschool (EP) or non enhanced preschool (NEP – the usual practice). This yielded 4 groups: (1) ES and EP, (2) only ES, (3) only EP, and (4) no intervention. In the EP group, the curriculum was modified and updated and the Anganwadi workers extensively trained with additional quarterly training and in service training and regular mentoring. In addition, parenting meetings and community melas were organized to educate parents and community members on techniques and to showcase skills attained. Primary outcomes, measured at baseline and follow-up after ~1 year, were children's IQ (summarizing cognition, language, and executive functioning) and school readiness (SR). Secondary outcomes were home environments, caregivers' child-development knowledge, preschool quality and child behaviours.

Discussion:

First, children assigned to ES, showed small-to-moderate cognition and language benefits at early trial end. At follow-up, 15 months later, they showed sustained IQ and SR benefits, and improvement in Family care indicators (FCI) play activities with adults and home environments which suggest benefits might continue.

Second, children attending EP with or without ES showed improvements in IQ and SR with an average cognitive benefit of 0.15 SD.

Third, the point estimates suggest that receiving both ES and EP confers larger cognitive benefits than receiving just 1 intervention. However, the effect sizes are not statistically distinguishable for receiving ES and EP versus receiving only ES or only EP.

EP had no effects of primary caregiver knowledge, but significantly improved the

quality of teacher-child interactions. FCI activities improved substantially only for those receiving ES or EP+ES.

Strengths:

Well planned study analyzing the effects of early stimulation and preschool on cognition, language and school readiness of rural children. By utilizing the existing ICDS preschool system and creating a modified curriculum with training with mentoring of Anganwadi workers, the study has potential to affect policy nationwide and be sustainable.

Limitations:

There was some delay between the completion of ES and the initiation of EP waiting for governmental approval, possibly reducing interaction effects of the 2 interventions. The intervening pandemic prevented endline data collection, hence midline data had to be used for analysis which may not show the full effect of the intervention.

Follow up data is under collection.

2. Title: Early Determinants of early childhood stimulation: Evidence using panel data from Chile

Authors: Lissette Briones, Dante Contreras, Gabriel Otero, Gustavo Soto

Journal: Early Childhood Research Quarterly

Date of publication: 20 July 2021

Citation: Lissette Briones, Dante Contreras, Gabriel Otero, Gustavo Soto; Determinants of early childhood stimulation: Evidence using panel data from Chile, *Early Childhood Research Quarterly*, Volume 57, 2021, Pages 202-214, ISSN 0885-2006, <https://doi.org/10.1016/j.ecresq.2021.06.006>.

Introduction:

The study is a longitudinal early childhood survey conducted in 2010 and 2012 of infants aged around 30 months and conducted in Chile. This paper examines the determinants of early childhood stimulation provided by caregivers using an ecological approach. Early childhood stimulation was examined using a multidimensional index that comprised of three domains: caregivers' stimulation of cognitive-language, sensorimotor, and socio-emotional development. Certain factors which showed less stimulation included education of the caregiver, low income, large families etc.

Methods:

Survey was conducted in 2010 and 2012 by the Microdata center at Universidad de Chile. A total of 14,161 households were randomly selected to participate in the first wave by means of face-to-face interviews. Almost 80 percent of the households selected in the first wave were successfully re-interviewed in 2012: a total of 11,198 households. For the study, 8,251 households were considered (difference mainly due to missing household income) representative of the national population.

The authors devised an integrated Stimulation Index (SI) to represent the amount of stimulation provided by caregivers was used based on three main dimensions: the cognitive-language, sensorimotor, and socio-emotional domains, all weighted equitably. 13 items comprise the SI which included information obtained from history and from direct observation of the home environment and the interaction between the child and parent during the interview.

Independent variables considered were the following:

Child related - gender, age, physical diseases during eight developmental periods

Caregiver related - educational level, intellectual ability (using digit retention scale and vocabulary scale from the Wechsler Adult Intelligence Scale), personality traits and presence of psychopathology during or after pregnancy.

Household conditions - monthly income per capita, number of siblings and sibling differential

Preschool programs - period in months that the child attended a preschool in any capacity.

Control variables were also used - age, gender, indigenous descendance, work situation (full time, part time, not at all), health (BMI), postpartum consumption of alcohol and tobacco (during first 6 months of child's life), number of adults in the family and living in a rural area.

A dynamic modelling was used in estimates.

Results and Discussion:

1. Child-related factors:

a) Gender: Parental stimulation was found to be higher for girls than boys. Possible hypotheses for the same include mother being primary caregiver, and thus probably better able to understand and engage more with daughters than sons; socio-cultural factors and contrasting rates of aggressive behaviour in boys and prosocial behaviour in girls which impact parental stimulation

b) Age: Parental stimulation decreases as the child grows, and when analyzed according to dimension, it only appears to be relevant to the socio-emotional dimension. This decrease in stimulation with age is probably due to a reduction in the need to provide basic care to older children.

2. Caregiver and family factors:

a) Higher levels of education, along with good linguistic intelligence scores (WAIS vocabulary) positively impacted parental stimulation.

b) Maternal psychopathology (depression or anxiety) negatively affects caregiver-child stimulation probably due to low maternal receptivity.

c) Maternal personality traits were found to be highly relevant. Extraversion, agreeableness, conscientiousness, and openness to experience were significantly associated with early childhood stimulation.

d) Age was positively related to stimulation, showing younger mothers were at a disadvantage

e) The number of siblings was found to have a negative correlation with parental stimulation. Difference in number of siblings between the 2 waves, indicating the arrival of a new sibling, was relevant in the socio-emotional dimension.

f) Poverty significantly affects stimulation, mostly in the physical and cognitive dimension, not in the socio-emotional dimension

3. Preschool: Attending preschool programs was negatively but not significantly related to parental stimulation of children.

The authors concluded that the evidence provided makes it easier to identify those children who are in greater need of intervention due to deficits in parental

stimulation: those from large families, from low-income households, and with caregivers whose education levels are lower. The results also reveal key aspects for consideration in the formulation of public policies to develop training activities and skills in mothers and caregivers in order to increase positive and quality interactions with children. Also, the provision of learning tools, such as age appropriate books and toys for each developmental stage, is necessary for low-income families to properly stimulate children in the cognitive and sensory domains.

Strengths of the study:

Large sample size with good follow up, relevant study, looked at maternal personality traits and psychopathology, dynamic modeling looked at effect of variables in the first assessment to the later assessment.

Limitations

The Stimulation Index measures the frequency of stimulation, not its quality. It looks at the availability of learning tools, not how frequently it's used.

Editor's note: The items in the Stimulation Index look at books, stuffed toys, costumes, etc. It doesn't look at other sources of learning and sensory stimulation like being involved in household chores and other opportunities for parental interaction and stimulation. This is of particular importance in families living in poverty, and looks at other methods of learning apart from traditional learning.

FROM GENERAL TO JOURNAL

ATTENTION DEFECIT HYPERACTIVITY DISORDER (ADHD)

Dr Samir Dalwai, Dr Hilla Sukhadwala

IAP Handbook of Developmental and Behavioural Pediatrics

ADHD is one of the most common Behavioural Disorders of Childhood and Adolescence, and may persist into Adulthood

ADHD can profoundly affect academic achievement, social interactions and well-being of children

ADHD has a genetic and biochemical basis

ADHD is diagnosed if the child meets the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM5) criteria

The clinical subtypes of ADHD are Predominant Hyperactivity- Impulsivity, Predominant Inattention and Combined

There can be comorbid conditions like Oppositional- defiant disorder, Anxiety disorder, Depression, Learning Disability and Conduct disorder

The Objectives of a comprehensive evaluation will be to

- 1) confirm core symptoms,
- 2) exclude other explanations of core symptoms and
- 3) identify coexisting disorders

Management involves collaboration between the developmental team, the child's caregiver and school personnel

The aim of Management will be to

- 1) decrease hyperactivity, aggression,
- 2) improve relationships, academic performance, and also
- 3) address coexisting conditions

Modalities of Management are

- 1) behavioural interventions,
- 2) medication,
- 3) educational interventions, and
- 4) a combination of all the above

RESPONSE TO NAME CALL - AN EPONYMOUS STORY
ANGELMAN SYNDROME
SYN : HAPPY PUPPET SYNDROME

Dr K S Multani



Ritratto di fanciullo con disegno Giovanni Francesco Caroto Wikimedia



Dr Harry Angelman

In 1965, Dr. Harry Angelman, an English physician, first described three children with characteristics now known as the Angelman syndrome (AS). He noted that all had a stiff, jerky gait, absent speech, excessive laughter and seizures. Other cases were eventually published but the condition was considered to be extremely rare at that time, and many physicians doubted its existence. The first reports from North America appeared in the early 1980s.

Dr. Angelman relates the following regarding his discovery of this syndrome. "The history of medicine is full of interesting stories about the discovery of illnesses. The saga of Angelman's syndrome is one such story. It was purely by chance that nearly thirty years ago (e.g., circa 1964) three handicapped children were admitted at various times to my children's ward in England. They had a variety of disabilities and although at

first sight they seemed to be suffering from different conditions. I felt that there was a common cause for their illness. The diagnosis was purely a clinical one because in spite of technical investigations which today are more refined I was unable to establish scientific proof that the three children all had the same handicap. In view of this I hesitated to write about them in the medical journals. However, when on holiday in Italy I happened to see an oil painting in the Castelvecchio museum in Verona called . . . A Boy with a Puppet. The boy's laughing face and the fact that my patients exhibited jerky movements gave me the idea of writing an article about the three children with a title of Puppet Children. It was not a name that pleased all parents but it served as a means of combining the three little patients into a single group. Later the name was changed to Angelman syndrome. This article was published in 1965 and after

some initial interest lay almost forgotten until the early eighties.””

In 1987, Ellen Magenis, a physician at the Oregon Health Science Center, identified children with microdeletions of chromosome 15 who were expected to have the Prader-Willi syndrome. However, these children had seizures and severe developmental delay, features not expected to be found for that syndrome. It was quickly realized that these children had microdeletions on the maternally derived number 15 chromosome whereas in the Prader-Willi syndrome the deletion was always observed on the paternally derived one. This was an important discovery and ultimately paved the way for the delineation of several mechanisms that caused AS, all by disruption of a gene located on chromosome 15. It was learned that the syndrome can be caused by two copies of the paternal chromosome 15 (1991) and that a regulatory region (the Imprinting Center) can be also be disrupted to the syndrome (1993). In 1997,

10 years after the chromosome deletion was identified, the AS gene, UBE3A, was isolated. This discovery quickly led to the development of animal models and to active neuroscience research aimed at discovering how abnormalities of UBE3A cause impairment in neural development. During the last 20 years, there has been increasing awareness of AS throughout the world. The syndrome is well represented by parent based support groups in many countries, on individual family websites and on a host of medical and professional information websites. Angelman syndrome has emerged as one of the important syndromes causing neurological impairment and most pediatricians and neurologists now are aware of it.

References :

1. Angelman, H., "Puppet" Children. A report of three cases. *Dev Med Child Neurol*, 1965. 7: p. 681-688.
2. History of Angelman syndrome. The Angelan syndrome foundation.

INTERESTING CASES

Dr Nirali Lohiya¹, Dr Nikhil Lohiya²

1-Developmental & Behavioral Pediatrician

2- Pediatric Endocrinologist, Silver Lining Superspeciality Center for Growth, Development and Endocrine Care, Nagpur, Maharashtra)

Case Report

We report a child, a 10-month-old boy, who presented with global developmental delay. He was the 2nd born male child, born of a nonconsanguineous married couple, presented with developmental delay. He was delivered at full term with average birth weight without any complications. This child had not achieved neck holding, poor trunk control, and had not acquired palmar grasp. He could not respond to his name. He did not have meaningful communication yet. Hearing and vision were normal by formal evaluation. There was no history of encephalopathy, seizures, regression, diurnal variation of symptoms, or autonomic instability. There was no family history of similar complaints.

The child had facial dysmorphism in the form of an elongated face. On examination, weight, length, and head circumference were 6.8 kg (-0.12SD), 73 cm (+2.76SD), and 43 cm (-2.54SD), respectively. Power was 3/5 in all groups of muscles, and his deep tendon reflexes were preserved.



His Gross Motor Function Measure- GMFM 88 scores revealed

Lying and Rolling 50.9 Percent

Sitting 20 Percent

The grand total estimated of child's gross motor function is 14.18 percent.

Bayley scale of infant development (BSID)-3 was performed to see his developmental age equivalents to tailor interventions accordingly.

Subtest	Developmental Age Equivalent (Months)
Gross Motor	2.2
Cognitive/Visual Reception	5.9
Fine Motor	3.1
Receptive Language	5.1
Expressive Language	3.2

MRI of the brain showed hypomyelination. Given the observed neurodevelopmental delay with significant hypotonia, the crucial step in the assessment was thyroid hormone assay, considering their pivotal role in the nervous system. Thyroid function tests showed low free T4, 0.57 ng/dl (0.89-1.76 ng/dl); low total T4, 3.30 mcg/dl (7.3-15 mcg/dl); and normal TSH, 3.33 mIU/ml (0.34-5.6 mIU/ml)

RESULTS

LIKELY PATHOGENIC VARIANT CAUSATIVE OF THE REPORTED PHENOTYPE WAS DETECTED

SNV(s)/INDELS

Gene [#] (Transcript)	Location	Variant	Zygoty	Disease (OMIM)	Inheritance	Classification ⁵
SLC16A2 (+) (ENST00000587091.6)	Exon 1	c.44G>A (p.Trp15Ter)	Hemizygous	Allan-Herndon-Dudley syndrome (OMIM#300523)	X-linked	Likely Pathogenic (PVS1,PM2)

suggestive of central hypothyroidism but as the child does not have any features suggestive of congenital hypothyroidism the possibility of Allan Herndon Dudley syndrome (AHDS) was kept in mind. Thyroid profile showed low free T4, and normal TSH but high free T3. Hence, AHDS was suspected strongly and confirmed by genetic testing. Whole exome sequencing revealed a missense hemizygous pathogenic variant in the SLC16A2 gene (c.44G>A/p.Trp15Ter) that codes for monocarboxylate transporter 8 (MCT8). It is X linked in inheritance.

Discussion

There are a handful of reports for AHDS available in India and even globally. It is a rare disease with a prevalence of less than 1 per 10,00,000[1]. It is often misdiagnosed as cerebral palsy or central hypothyroidism[2]; hence, we are reporting this child to emphasize the role of an entire thyroid function test (fT3, fT4, TSH) in any case of developmental delay.

Allan Herndon Dudley syndrome (AHDS) is a rare X-linked recessive disorder due to a mutation in the SLC16A2 gene[3], which encodes a thyroid hormone (TH) transporter that helps the movement of the hormone across the neurons in the brain. Mutation in this gene leads to a lack of T3 and T4 entry in the brain which is very crucial during early development. It causes central hypothyroidism and dysthyroidism in the peripheral tissue. Due to the lack of systematic

epidemiologic studies, the current prevalence of AHDS is difficult to say. Although it is believed it affects <1 in 1,000,000 individuals, and predominantly males. AHDS mainly presents with diverse clinical manifestations but is predominantly characterized by neurological and endocrine symptoms.

In early infancy, manifestations often include generalized hypotonia with poor head and neck control. The axial hypotonia persists even into adulthood. The hypotonia in the limb progresses to spasticity and dystonia later which was not observed in the present case because of younger age of presentation and early pick up. As age progresses, cognitive impairments become increasingly apparent and are often noticed by delayed language milestones and deficits in basic functional communication skills[4].

Therapy with Triiodothyroacetic acid is now under trial but seems to be promising with a goal-based intervention plan for rehabilitation for the child. Diagnosis is crucial, as cerebral palsy and central hypothyroidism are often misdiagnosed as the two most common conditions.

To conclude, AHDS should be considered in any male child presenting with global developmental delay with significant tone abnormalities mimicking cerebral palsy without perinatal complications, normal neuroimaging or delayed myelination, and thyroid functions suggestive of central

hypothyroidism with increased FT3. The entire thyroid function test is crucial rather than TSH only as it could have been normal giving a false reassurance of normal thyroid level.

Acknowledgment - The authors thank the patient and his parents for allowing us to publish this case report.

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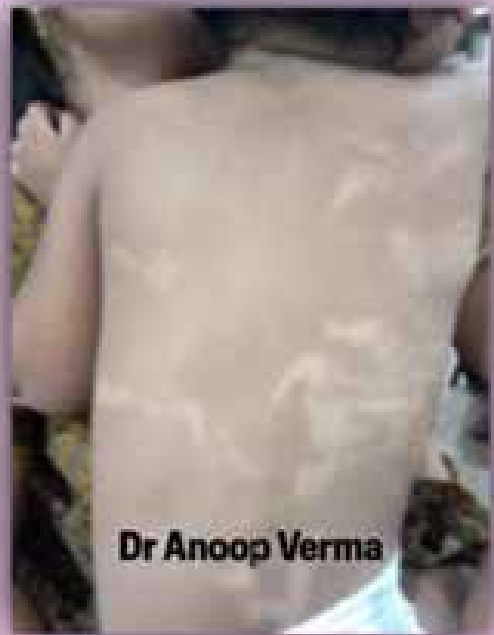
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NON VERBAL COMMUNICATION

SPOTTER**Dr Anoop Verma**

A 2 year old female patient presented with seizure and developmental delay and streaky hypopigmentation.

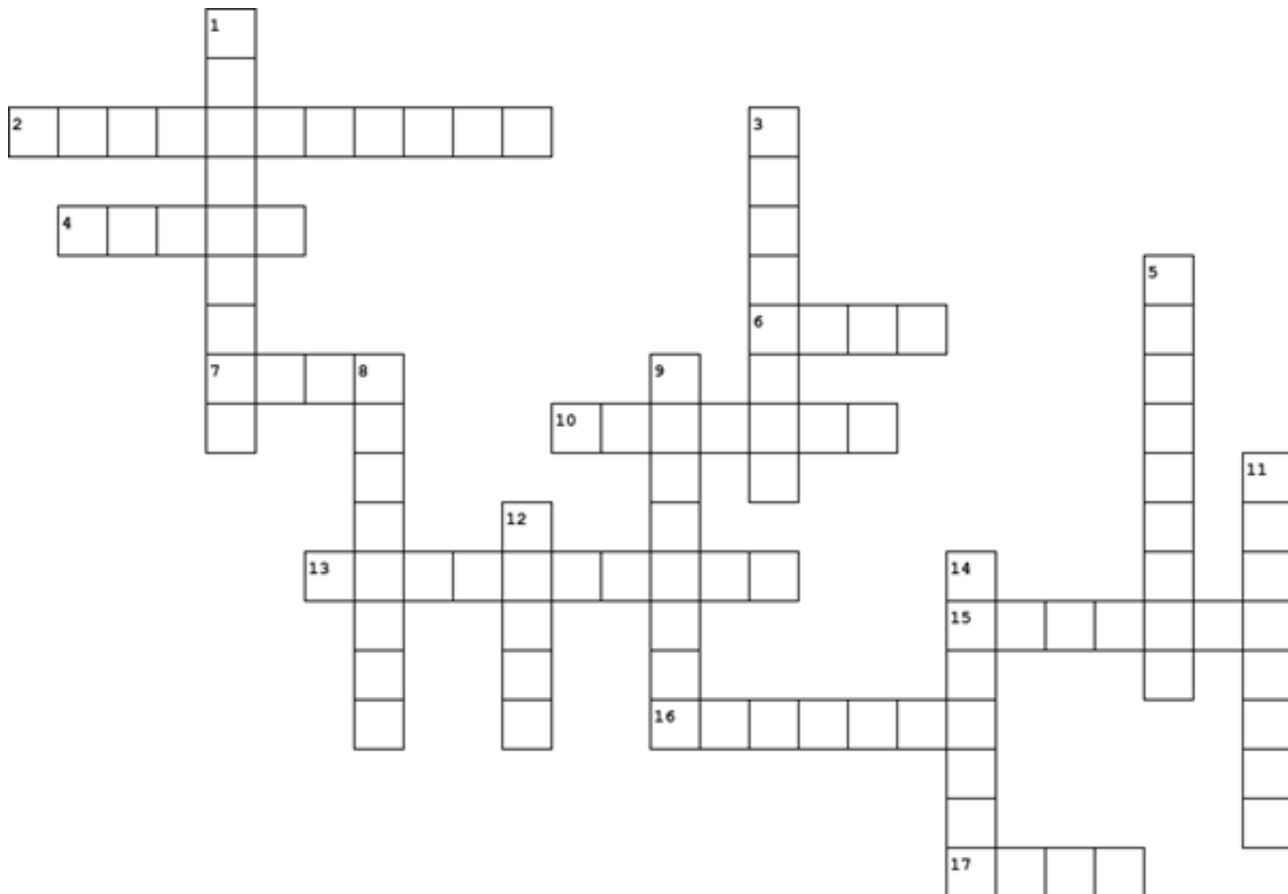
1. What is your probable diagnosis?
2. What are the clinical feature noted in this condition?
3. Comment on diagnosis?

**Dr Anoop Verma**

(See page 26 for answer)

THE MEANINGFUL WORD - QUIZ

DR ANSHUMAN VERMA



Across

- 2. Only FDA approved drug for Rett syndrome
- 4. Theory of psychosexual development
- 6. Office developmental assessment tool
- 7. Developmental disorder in actress Emma Watson
- 10. City with first child guidance clinic
- 13. Behaviour screening tool beyond 6 years
- 15. Dyslexic author of Theory of Everything
- 16. Operant Conditioning theory
- 17. Early onset Alzheimer’s causally related to this syndrome

Down

- 1. Infant with cat like cry
- 3. Coined the term Behavioural Pediatrics
- 5. Neurodevelopmental disorder affecting physical coordination
- 8. Milestones not in typical sequence
- 9. Happy Syndrome
- 11. Second most common genetic cause of intellectual disability
- 12. Gene mutation in Rett syndrome
- 14. Congenital deficiency leads to most common preventable causes of MR

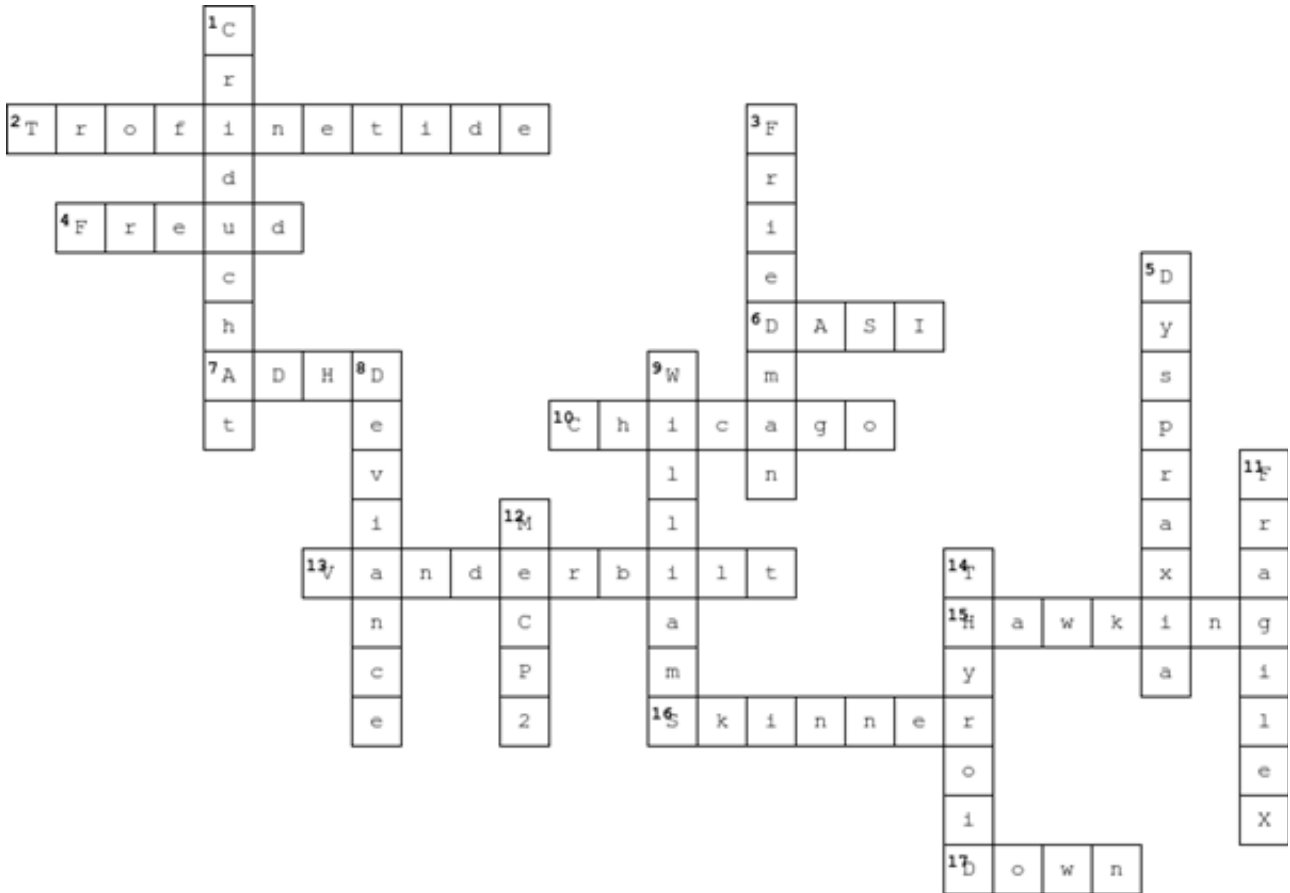
(See page 27 for answers)

ANSWERS TO NON VERBAL COMMUNICATION

Answers -

1. The presence of whorls of streaky hypopigmentation along with history of seizures, developmental delay favours the clinical diagnosis of Hypomelanosis of ITO
2. The **cutaneous features** as describes appears in the first year. The skin pigmentation is classical and all the family members are to be assessed. Other cutaneous features can be seen are cafe au lait spots, angiometous nevi, hetrochromia of iris.
3. The **neurological manifestation** are seizure developmental delay, mental retardation. The Focal seizures are most common, but infantile spasm and LGS can also be seen in this condition. Less than 70% patents have low IQ score. Megaencephaly is seen in 25% cases.
4. **Chromosomal analysis** to be offered to patient and family. 5. **MRI** may reveal cerebral or cerebellar hypoplasia, neuronal migration anomalies and hemimegancephaly.
6. The **treatment** is symptomatic

ANSWERS TO THE MEANINGFUL WORD



SUDDEN BURSTS OF LAUGHTER

Dr Leena Deshpande

Generation GAP?



This was something that was different for me. I did a kidney biopsy yesterday for a 17 year old boy. That all went smoothly. So, at the time of discharge, as is my usual practise, I showed the small plaster/ bandage on the back. It is really a spot plaster of the band aid/ handyplast variety. I told the parents that when he had a bath the next day, it could be taken off and there would be nothing seen beneath that and when the band aid became wet, it would come off easily.

The boy looked at me and threw me off by saying...But tomorrow I won't take a bath! I presumed that he was worried about taking a bath after the biopsy and I told him that there was nothing to worry and he could take a bath without any problem. He looked at me and explained in simple terms...But there is no school tomorrow as it is a holiday. For a moment, I was confused till he elaborated...So I won't take a bath!! I was totally non plussed. Had never imagined that I would face such a situation. Oh, well....it takes all kinda to make the world and I guess youngsters today believe that wasting efforts on a bath when there is no school/ college is so passe!! What do we know??!

Excerpt from 'Kids, Kidney, Kidding ' Book by Dr Pankaj Deshpande, Pediatric Nephrologist

ROLLING OVER – THE OTHER SIDE - NEWS THAT IS PATH BREAKING

Sreetama Chowdhury

EARLY CHILDHOOD SCIENTIFIC COUNCIL ON EQUITY AND THE ENVIRONMENT

Extreme Heat Affects Early Childhood Development and Health

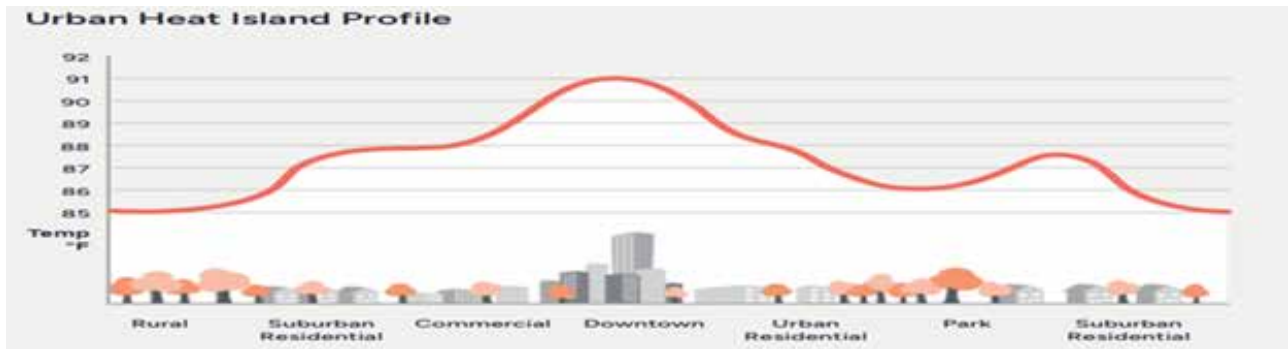
The Centre of Developing Child at Harvard University published a landmark paper in 2023 on the effects of global rise of temperature on child health and development. With increasing temperatures, altering socio-economic environment and dynamic microbial flora over the last decade, it is important for pediatricians to be aware of the effects of extreme heat on the child, both in utero and out.

The pathophysiology hypothesised to cause such changes include: (i) extreme prolonged heat causing degradation of intracellular protective heat shock proteins which exposes other proteins to heat injury (ii) reduced speed of neuronal conduction in an overheated brain, causing altered cognitive functions (iii) immune system attacking degraded heat shock proteins (iv) extreme heat causing a leaky gut facilitating entry of bacteria into systemic circulation.

Development of the child is disrupted through three principle pathways: (i) learning loss which is caused due to the high temperatures reducing attention span and prolonging brain reaction time (ii) poor sleep quality characterised by delayed onset, reduced hours and fragmented sleep (iii) extreme heat acting as toxic stress which disrupts emotional regulation and alters neurohormonal milieu that stabilises mood, resulting in aggression and oppositionality.

The high heat also brings with it poor air quality, reduced safe drinking water and festering of microbes which especially affect children from disadvantaged communities. Lower income schools and households also have limited access to structural cooling options in urban heat islands- an emerging problem which needs to be addressed.

The Centre for Developing child calls for urgent action to control global heat wave



including formation of heat action plans by international bodies like UNICEF. It is essential to identify and control extreme heat in places where children spend their times during the early developmental period to minimise the long term effects of heat stress, as well as include structural cooling options.

Further reading:

Early Childhood Scientific Council on Equity and the Environment. (2023). Extreme Heat Affects Early Childhood Development and Health: Working Paper No. 1. Retrieved from www.developingchild.harvard.edu

Membership Form



Indian Academy of Pediatrics



Chapter of Neuro Developmental Pediatrics

Membership Application Form

(Please fill in capital letters; All Information Mandatory; Pl do not leave any blank spaces)

1. Surname: _____ First Name: _____ Middle Name: _____
2. Date of Birth _____
3. Central IAP Membership Number (For Pediatricians Only) : _____
4. Permanent address:
-
-
5. Office Address.....
-
-
6. Email:..... Landline Telephone:.....
7. Mobile Phone Number (1).....(2).....
8. Present Work Status: Private ___ Govt. ___ Medical College ___ Voluntary Agency ___
- 9.

Qualifications	Name of University	Year of Passing
MBBS		
MD Pediatrics		
DCH		
DNB Pediatrics		
Others		

10. Areas of Interest of Work _____

P.T.O

Membership Form

11. Membership Subscription:

- a) Life Membership for Central IAP Members – Rs 1500
- b) Life Associate Membership for Doctors other than Pediatricians – Rs 1500
- c) Life Affiliate Membership for All Other Professionals – Rs 1500

12. On online transfer please e-mail the scanned form with transfer details to cdgiap@gmail.com with cc to kawaljit000@gmail.com

NAME OF ACCOUNT – IAP CHAPTER OF NEURO DEVELOPMENTAL PEDIATRICS
PAYABLE AT ERNAKULAM
FEDERAL BANK LTD
ERNAKULAM / KATHRUKADAVU
ACCOUNT NUMBER 16860100040046
IFSC CODE – FDRL0001686

Signature of the Applicant with date:

For Office Use Only Membership No.....

..... Particulars of the receipt: Cheque / D.D

No.....Bank.....

Amount.....Date.....

ZONAL AND STATE COORDINATORS

North Zone: Dr Khurshid Ahmed Wani

East Zone: Dr Atanu Bhadra

West Zone : Dr Leena Deshpande

Central Zone :Dr Deepak Dwivedi

South Zone : Dr Deepa Bhaskaran

J&K	Dr Sheikh Mushtaq Ahmed
Punjab	Dr Manmeet Sodhi
Haryana	Dr Himani Khanna
UP	Dr Syed Manazir Ali
Delhi	Dr Praveen Suman
Rajasthan	Dr Megha Mahshwari
Uttarakhand	Dr Shruti Kumar
Jharkhand	Dr Shyamal Verma
Chattisgarh	Dr Kiran Makhija
Bihar	Dr Rahul Thakur
West Bengal	Dr Indu Surana
North East	Dr Pubali Deka
Orissa	Dr Subrata Majhi
Madhya Pradesh	Dr Pradeep Dubey
Gujrat	Dr Swati Vinchurkar
Maharashtra	Dr Dipti Chavan
Goa	Dr Vibha Parsekar
Telangana	Dr Hema Nalini
Andhra Pradesh	Dr Asritha
Karnataka	Dr Chitra Shankar
Tamil Nadu	Dr Lal DV
Kerala	Dr Manju George

PAST OFFICE BEARERS OF THE CHAPTER

YEAR	CHAIRPERSON	SECRETARY
	Dr Pratibha Singhi	Dr Nandini Mundkur
2002-2004	Dr Nandini Mundkur	Dr Abraham K Paul
2004-2006	Dr Hanumantha Rao	Dr Jacob Roy
2006-2010	Dr Abraham K Paul	Dr SS Kamath
2010-2013	Dr SS Kamath	Dr Samir H Dalwai
2013-2015	Dr Samir H Dalwai	Dr Prameela Joji
2015-2017	Dr Samir H Dalwai	Dr Chhaya S Prasad
2017-2019	Dr Jeeson C Unni	Dr Leena Srivastava
2019-2023	Dr Shabina Ahmed	Dr KS Multani
2024	Dr Leena Srivastava	Dr Shambhavi Seth

NATIONAL CONFERENCES OF THE CHAPTER

SI No	Year	Place	Organizing Chairpersons
1	2004	Bhubaneswar	Dr J Sarangi, Dr Arabindo Mohanty
2	2005	Hyderabad	Dr Hanumantha Rao
3	2006	Cochin	Dr Abraham K Paul, Dr S S Kamath
4	2007	Bangalore	Dr Nandini Mundkur
5	2008	Meerut	Dr Priyanka Jain
6	2009	Mumbai	Dr Tanmay Amladi, Dr. Samir Dalwai
7	2010	Delhi	Dr Monica Juneja
8	2011	Chandigarh	Dr Chhaya Prasad
9	2012	Nagpur	Dr Deepti Jain
10	2013	Cochin	Dr Abraham K Paul, Dr SS Kamath
11	2014	Bhopal	Dr Zafar Meenai
12	2015	Madurai	Dr Santhosh Rajagopal
13	2016	Mumbai	Dr Samir Dalwai
14	2017	New Delhi	Dr H Pemde, Dr Shambhavi Seth
15	2018	Hyderabad	Dr Himabindu Singh
16	2019	Pune	Dr Leena Srivastava
17	2020	eNCDP	Dr KS Multani
18	2021	eNCDP 2.0	Dr KS Multani
19	2022	Kolkata	Dr Atanu Bhadra
20	2023	Guwahati	Dr Shabina Ahmed
21	2024	Bangalore	Dr Adarsh E