



Ayurvedic Approach to Intellectual Disability - A Case Report

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Abstract

Intelligence has been defined as the ability to perceive or infer information, and to retain it as knowledge to be applied towards adaptive behaviours within an environment or context. Intellectual disability, also known as general learning disability, was formerly denoted with the terminology mental retardation. It is defined by an intelligence quotient under 70, in addition to deficits in two or more adaptive behaviours that affect every day, general living. Intellectual disability affects about 2 to 3% of the general population. 75 to 90% of the affected people have mild intellectual disability. Children with intellectual disabilities may have the symptoms like difficulty in speaking, remember things, understanding social rules, solving problems and thinking logically. In Ayurveda this can be understood under the concept of *Buddhi* and *Medha*. Ayurveda explains *Medhyarasayanas* which are beneficial for improving *Medha*. It is specific to brain tissue are claimed to promote the cognitive functions of the brain. A six-year-old boy was presented with the history of inability to recollect and delayed in expressing things since childhood. Malin's Intelligence Scale for Indian Children was used to screen the IQ. The IQ assessment score was 69. This condition was diagnosed as *Buddhimandya*/ Intellectual disability. After a thorough clinical examination and evaluation, a single course of treatment which comprises of *Udvarthana*, *Abhyanga*, *Shirodhara* and *Matrabasti* was given. There were significant improvements in the condition of the patient.

Keywords: Intellectual disability, Intelligence, *Medhyarasayana*, *Buddhimandya*, Malin's Intelligence Scale for Indian Children

Introduction

Intellectual disability, also known as general learning disability. Formerly it was denoted with the terminology mental retardation. Mental retardation is a generalized neurodevelopmental disorder characterized by significantly impaired intellectual and adaptive functioning. It is defined by an intelligence quotient under 70, in addition to deficits in two or more adaptive behaviours that affect every day, general living.

Intelligence has been defined as the capacity for abstraction, logic, understanding, self-awareness, learning, emotional knowledge, reasoning, planning, creativity, critical thinking, and problem-solving. More generally, it can be described as the ability to perceive or infer information, and to retain it as knowledge to be applied towards adaptive behaviours within an environment or context. Adaptive behaviour is defined in terms of conceptual, social, and practical skills involving tasks performed by people in their day to day lives.

Intellectual disability affects about 2 to 3% of the general population. 75 to 90% of the affected people have mild intellectual disability. Intellectual disability is subdivided into syndromic intellectual disability

and non-syndromic intellectual disability. In syndromic intellectual disability, the intellectual deficits are associated with other medical and behavioural signs and symptoms. In non-syndromic intellectual disability, the intellectual deficits are appearing without any other abnormalities.

There are many screening tests used for measuring intelligence and the score was converted into intelligent quotient. Based on the scores of these tests, Intellectual disability is divided into mild, moderate, severe, and profound categories. The intelligence quotient score 50-70 is considered as mild Intellectual disability, 35-49 as moderate Intellectual disability, 20-34 as severe Intellectual disability and <20 as profound Intellectual disability.

Children with intellectual disabilities may have the symptoms like difficulty in speaking, remember things, understanding social rules, solving problems and thinking logically. In early childhood, mild Intellectual disability may not be obvious or identified until children begin school.

In Ayurveda this can be understood under the concept of *Buddhi*. Saankhya Shaastra has narrated four functions of *Buddhi*, they are- *Aalochana* (Perception), *Manana* (Contemplation), *Abhimaana* (Pride) and *Avadhaarana* (Determination).

When analysed *Buddhi* can be understood to be having the following functions also, *Decision making*- The primary definition of *Buddhi* given in the classics indicates this meaning of decisive capacity. *Logical reasoning*- Man is such a creature who makes logical reasoning for every perception. In Indian thought it is termed as *Viveka Buddhi*. This is carried out in two steps. Primary *Vivechana* at the level of *Mana* and final *Vivechana* and *Grahana* at the level of *Buddhi*. *Buddhi helps in perception* (The mental process of becoming aware of, or recognizing an object or idea) and *Cognition* (Any process whereby one acquires knowledge). Hence decisive knowledge on acceptance or condemn on a subject with all considerations on usefulness or not (*Adhyavasaya*), accomplished at *Manas* is the sole function of *Buddhi*.

Acharya Dalhana defines *Medha* as a variety of *Buddhi*, which acquires the knowledge which is complete, uninterrupted, minute and deep and collect from different sources. In Ayurveda there is a concept of *Medhyarasayana* which is beneficial for *Medha*. *Medhyarasayanans* specific to brain tissue are claimed to promote the cognitive functions of the brain.

Case Report

History of presenting complaints

A six-year-old boy was presented with the history of inability to recollect and delayed in expressing things since childhood.

Past history of the patient

He was the second child of non-consanguineous marriage. During second months of pregnancy the patient's mother had bleeding and got arrested after taking medications. Patient was born at full-term baby through caesarean section weighing 2200gms. Child did not cry immediately after the delivery. For that the child was shifted to NICU and was managed. All the developments were said to be normal expect language and social development. He was on breast milk exclusively for 3months. Weaning was started at the age of 4months. He was on family food by the age of 1year. Mother had noticed the child is inability to recollect and delay in expressing things for that they have underwent IQ assessment and reported with IQ of 69.

Examination

On examination the child was moderately built and nourished. He was sitting quietly. Anthropometric measurements included the height was 124cm and the weight was 25kg. The child was afebrile. The pulse rate was 83/min and the respiratory rate was 20/min. there was no pallor, no clubbing, no cyanosis, no lymphadenopathy and no oedema. All the systemic examinations were normal.

Investigations

Hemoglobin	: 12g/dl
TSH	: 1.15 IU/dl
MRI Brain	: Normal
IQ Assessments	: Score 69

Treatment Given: This condition was diagnosed as *Buddhimandya*/ Intellectual disability. After a thorough clinical examination and evaluation, a single course of treatment which comprises of *Udvarthana*, *Abhyanga*, *Shirodhara* and *Matrabasti* was given.

Treatment given:

SI No	Procedure	Medicine	Days
1	<i>Udvarthana</i>	<i>Kolakulathadi Choorna</i>	First 3 days
2	<i>Sarvanga Abhayanga</i>	<i>Dhanwantharam Taila</i>	Next 5 days
3	<i>Shirodhara</i>	<i>Ksheerabala Taila</i>	Next 7 days
4	<i>Matrabasti</i>	<i>Kalyanakam Ghrita</i>	Next 7 days

Advise at the time of discharge:

SI No	Days	Medicine	Dose	Time
1	30	<i>Saraswatharistam</i>	10ml BD	After food
2	30	<i>Shankapushpi Choorna</i>	3gms BD	With milk after food
3	30	<i>Kalyanakam Ghrita</i>	5ml night	Before food
4	30	<i>Chandanaadi Tailam</i>	Head application	Before bath

Discharge medicines were given for a period of 1 month and again proper evaluation was done. It was advised to continue the same medicine for a period of 6 months.

Outcome of the Treatments: As per the mother's statement, appetite has improved considerably well and in general health status of the child has improved. He is able to recollect and reproduce the studies portions. There was marked improvement in the skills of communication and replying to the questions. There was improvement in social development noted. The child starts wishing 'Good Morning' during OPD visits.

Scale	Grading BT	Grading AT
Malin's Intelligence Scale for Indian Children	69	77

Discussion

In this case study the patient presented with the history of inability to recollect and delayed in expressing things since childhood. This condition was diagnosed as *Buddhimandya*/ Intellectual disability. There is no direct reference of Intellectual disability in Ayurvedic classics, so looking into the presentations the condition was understood as *Buddhimandya* and the drugs which are having *Medya* properties were adopted for the management. Initially the patient was given *Rookshana* with the help of *Udvarthana* with *Kolakulathadi Choorna* for a period of 3 days, followed by *Bhahya Snehana* with *Sarvangaabhyanga* for 5days. It was followed with *Shirodhara* for 7 days and *Matrabasti* with *Kalyanakam Ghrita* for next 7 days. On discharge medicines like *Saraswatharistam*, *Shankapushpi Choorna*, *Kalyanakam Ghrita*, internally and *Chandanaadi Tailam* for head application were given for a period of 1 month and again proper evaluation was done. It was advised to continue the same medicine for a period of 6 months. The treatment procedures and the oral medications improved the overall language and social developments in this patient. He is able to recollect and reproduce the studies portions. There was marked improvement in the skills of communication and replying to the questions. There was improvement in social development noted. The child starts wishing 'Good Morning' during OPD visits. Malin's Intelligence Scale for Indian Children was used to screen the IQ. The child was having IQ assessment score of 69 before treatment was improved to 77, with said treatments and internal medications.

Conclusion

Present case by the end of 6 months of treatment, there were marked improvement in the IQ, language and social development of the child. The drugs mentioned under *Medhyarasayan*s specific to brain tissue are claimed to promote the cognitive functions of the brain. *Panchakarma* compounded with *Medhyarasayan*s are very effective in treating children's with *Buddhimandya*/ Intellectual disability.

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