

AN AYURVEDIC MANAGEMENT OF MANASA VIKARA WITH RESPECT TO ADHD IN CHILDREN

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Abstract

According to World Health Organization, mental disorders are to increase by 50% in 2020, become on the international level one of the main causes of morbidity in children. Children constitute about 40% of our population and in Indian studies the reported rate of psychopathology among children is 5-15%. The study was conducted in 60 patient of 0 - 16 years clinically diagnosed and confirmed patient of ADHD in children. Patient having the history of difficulty in sustaining attention, not seems to listen, not follow instruction, loses the things, easily destructed, forgetfulness, fidgets, talks excessively and blurt out answers before completion of question etc. were included; patient with convulsion and other metabolic disorder was excluded. The patient were randomly divided into two group A & B. Group A was treated with Takradhara and group B managed by the internal medication. During the course of therapy restriction regarding diet were advised to all patient of both the groups as indicated in Ayurvedic classics. During the trial and follow up studies of all patients were assessed on various scientific parameters. On the basis of above findings results were drawn. It has been observed that there is statistically highly significant (<0.001) improvement in most of the symptoms of the ADHD after the treatment with Takradhara. Significant reduction was recorded in symptoms as excessive talking, loses the things, fidget, easily destructed was found in group A and group B shows that no result which was also shown by statistical non significant.

Key words: ADHD; Takradhara; Takra; Medhyarasayana; DSM.

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INTRODUCTION

According to World Health Organization, mental disorders are to increase by 50% in 2020, become on the international level one of the main causes of morbidity in children. Children constitute about 40% of our population and in Indian studies the reported rate of psychopathology among children is 5 - 15%. A recent analysis estimated that the global cumulative impact of mental disorder in terms of lost economic output will amount to US\$1600 billion over next 20 year.^[1]

The incidence of developmental disabilities in children per thousand (1000) is as given below:

- Mental retardation - 25-30.
- Cerebral palsy - 02-03.
- Attention- Deficit/ Hyperactivity Disorder 75-100.
- Learning disability - 75.
- Communication disorders including hearing loss 02 – 03
- Childhood autism 0.2 - 0.5

These statistics show that ADHD has the highest incidence among all the other developmental disorders. Such a prevalent disease the ADHD is having only limited treatment that too with great side effects.

Basic drugs which are used in ADHD are psycho stimulants, tricyclic antidepressants and tranquilizers its side effect given in Nelson's text book of pediatrics. The psycho stimulant drugs used to treat ADHD may be associated with an increased risk of adverse cardiovascular events, including sudden cardiac death, myocardial infarction, and strokes in young adults, rarely in children. Methylphenidate the psycho stimulant drug widely used in ADHD. Methylphenidate causes mild sleep disturbances, irritability, moderate appetite suppression, transient weight loss, emergence of tics. Tricyclic antidepressants causes nervousness, fatigue,

stomach upset, dizziness, dry mouth, accelerated heart rate, confusion, sometimes severe liver injury or suicidal ideation.^[2]

Today the need came to find out effective treatment without hampering the development of health and psychology of children. Now the actual need of our indigenous medicine and several herbal preparations and procedural based therapies, for example Sirodhara, Takradhara etc. which is with its basic theories developed on ancient Ayurvedic principles. The aim of the study is to evaluate the efficacy of Takradhara in the manasa vikara W.S.R. to ADHD and to find out effective management for the attention deficit hyperactive disease.

MATERIAL AND METHODS

Total 60 children were selected from the OPD and IPD of the department of the Kaumarbhritya of S.V Ayurvedic Hospital Tirupathi after proper screening on the predesigned Proforma and also on the basis of following inclusion and exclusion criteria.

All the patients registered for the present clinical study were screened for Age, Sex, Socio-economic status, water supply, immunization, family history, past history along with General, Physical and systemic examination and all the relevant information were noted.

After registration of 60 patients they are made into 2 groups

Group A of 30 patients treated with Takradhara therapy – nothing orally.

Group B of 30 patients treated with internal administration of Bramhi churnam and Jatamamsi churnam, without Takradhara therapy.

These 2 groups studied separately before treatment and after treatment. Results are recorded.

Inclusion criteria

With the help of DSM – IV CRITERIA the ADHD patients was selected.

Exclusion criteria

Autism spectrum disorder, Temper tantrum, Pica, Anorexia nervosa and bulimia nervosa.

Method

With prior abhyangam with vatahara tailam ask the patient to lay down on the Droni. Fill the droni patra with the takra which already prepared with the medhya rasayanas like bramhi churnam one spoon and jatamansi churnam one spoon. Pour the continuous stream of medicated Takra, in a rhythmic manner. Similar mode of treatment continued for 14 days without break. With the gap of 2 months at least three sittings of treatment given, in each sitting the response in 18 symptoms of DSM - 4 criteria are observed and noted.

While calculating severity and clinical response are graded as 4 steps like never, often, quiet often, very often.

The obtained results were measured according to the grades given below:

$(\text{Total BT} - \text{Total AT}) / \text{Total BT} \times 100$

Complete Remission: 100% relief

Marked Improvement : >75% relief

Moderate Improvement : >50 % to 75 % relief

Mild Improvement: 25 % to 50 % relief

Unchanged : <25 % or No relief

Drug formulation

Brahmi, Jatamansi is the well known drugs of medhya rasayana. According to modern pharmacology it is very useful in insomnia, hyperactive disorders.

The hyper activity mainly due to the Vata and sometime Pitta vitiation these medhya rasayana has good property of pacify the dosa. Takra have the property of Deepana, Laghu and Grahi guna. On adding Brahmi and Jatamansi in milk with addition of some curd and left for tonight. During the transformation of milk into curd the active ingredient of medhya rasayana dissolved into it. During the process of Takradhara these active ingredient easily absorbs through the skin of forehead. The continuous stream of takra on Agya chakra may improve the concentration of mind and helps in normalizing the chittavrittiya.

RESULTS

All the patients were examined thoroughly and findings are recorded before treatment and after treatment separately by considering the each and every symptom at the time of presentation and any relief in that after treatment. Not seems to listen, not follow instruction, difficulty in organizing task, loose the things, easily distracted found to be highly significant with about 70% improvement in Takra Dhara treated group (Table 1) and insignificant in oral medication group. (Table 2)

DISCUSSION

The importance of childhood has been emphasized from the literature right up to the medical science since time indefinite it is indeed a foundation of the adulthood. Every incidence in the childhood has an influence on the adult life. A healthy childhood is therefore mandatory for expecting a healthy adulthood.

The incidence of psychiatric disorders in children is on a rise to the extent that it is to become one of the main causes of morbidity in children. However considering that children constitute 40% of our population, Child mental health becomes an issue of paramount importance.

Table 1: Group A - Takradhara with internal medication

Sl.No.	Symptoms	BT	AT	Mean	%	SD	SE	T	P	significance
1	Fails to give detail	3.86	1.2	2.66	68.9	0.66	0.12	22.1	0.002	HS
2	Difficulty in sustaining attention	3.83	1.16	2.66	69.5	0.54	0.094	26.7	0.005	HS
3	Not seems to listen	3.8	1.66	2.63	69.2	0.49	0.089	29.4	0.000	HS
4	Not follow instruction	3.76	1.13	2.63	69.9	0.668	0.122	21.5	0.003	HS
5	Difficulty in organizing task	3.93	1.1	2.83	72	0.461	0.84	33.6	0.00	HS
6	Often avoid	3.73	1.23	2.5	66.9	0.682	0.124	20.06	0.009	HS
7	Loose the things	3.8	1.3	2.5	65.7	0.082	0.149	16.6	0.00	HS
8	Easily distracted	3.9	1.1	2.8	71.7	0.406	0.074	37.6	0.002	HS
9	Forgetful	3.83	1.13	2.7	70.4	0.596	0.108	24.8	0.003	HS
10	Fidget	3.9	1.1	2.8	70	0.449	0.82	33.2	0.004	HS
11	Leaves seat	3.68	1.13	2.7	70.6	0.69	0.126	21.6	0.005	HS
12	Run and climb excessively	3.8	1.06	2.73	71.9	0.52	0.095	28.7	0.001	HS
13	Difficulty in leisure activity	3.8	1.1	2.76	71.5	0.56	0.103	26.6	0.005	HS
14	On the go or driven by a motor	3.9	1.33	2.56	65.8	0.817	0.014	17.2	0.00	HS
15	Blurt out answer before completion of question	3.83	1.13	0.596	70.4	0.10	1.9	24.8	0.00	HS
16	Difficulty in awaiting turn	3.86	1.66	0.430	71.5	0.078	2.76	35.2	0.006	HS
17	Intrudes on other	3.83	1.0	0.639	71.3	0.116	2.7	23.4	0.009	HS
18	Talk excessively	3.86	1.26	0.606	68	0.11	2.03	24	0.003	HS

BT = Before treatment; AT = After treatment; MD = mean difference; SD = Standard deviation; SE = Standard Error; HS = Highly significant

Table 2: Group B - Oral medication

Sl. No.	Symptoms	BT	AT	Mean	%	SD	SE	t	P	Result
1	Fails to give detail	3.74	3.66	0.66	1.78	0.253	0.046	1.3	0.59	IS
2	Difficulty in sustaining attention	3.70	3.59	0.01	2.7	0.305	0.055	1.79	0.566	IS
3	Not seems to listen	3.85	3.26	0.63	5.23	0.418	0.073	1.69	0.989	IS
4	Not follow instruction	3.81	3.43	0.43	1.20	0.317	0.049	1.023	0.57	IS
5	Difficulty in organizing task	3.43	3.46	0.46	1.86	0.546	0.054	1.47	0.779	IS
6	Often avoid	3.23	3.26	0.56	1.78	0.47	0.041	1.01	0.63	IS
7	Loose the things	3.9	3.52	0.40	1.25	0.31	0.048	1.69	0.52	IS
8	Easily distracted	3.86	3.66	0.80	1.69	0.46	0.021	0.59	0.68	IS
9	Forgetful	3.91	3.2	0.70	1.94	0.53	0.097	2.16	0.81	IS
10	Fidget	3.93	3.26	0.66	2.94	0.47	0.087	1.61	0.55	IS
11	Leaves seat	3.93	3.2	0.70	1.94	0.466	0.085	1.22	0.65	IS
12	Run and climb excessively	3.8	3.53	0.36	3.62	0.85	0.055	2.51	0.60	IS
13	Difficulty in leisure activity	3.93	3.23	0.72	1.79	0.651	0.118	2.88	0.67	IS
14	On the go or driven by a motor	3.22	3.2	0.66	1.24	0.60	0.110	1.02	0.71	IS
15	Blurt out answer before completion of question	3.85	3.33	0.46	1.28	0.68	0.124	1.75	0.58	IS
16	Difficulty in awaiting turn	3.83	3.36	0.46	2.17	0.50	0.092	2.47	0.51	IS
17	Intrudes on other	3.86	3.36	0.20	2.17	0.40	0.074	2.69	0.51	IS
18	Talk excessively	3.73	3.73	0.06	1.75	0.58	0.106	0.626	0.59	IS

BT = Before treatment; AT = After treatment; MD = mean difference; SD = Standard deviation; SE = Standard Error; IS = Insignificant

The psychiatric disorders which affect certain of the mental activities of the Children, which interfere with their development, slow down their education and Compromise their future by repercussions on their day by day quality of life.

Attention-Deficit / Hyperactivity Disorder are the developmental disease with the highest incidence. In India there is very little systematic research documented on ADHD in children, leading to problems in socialization and employment.

The shortcomings of the modern medicine have always placed greater responsibilities on the Ayurveda for providing effective management in such difficult to treat disorders when it comes to mental health the Ayurvedic concept of Medhya Rasayana is a ray of hope for establishing the health of ailing Manas, That is why in the preparation of Takra which is used in the process of Takradhara, along with medhya rasayana.

Sirodhara is one of the allied Panchakarma procedures used to rejuvenate the body and mind and which helps in calms the mind and relaxes the entire physiology thus helping to alleviate stress, strain, anxiety etc.^[3]

In the patho-physiology of Vata Dosha is predominantly affected. The profounder of Ayurveda were probably the first who have detailed description of mind body relationship.

The functions of the Manas are Manas Karma and its objects are Mano arthas are most vital aspects of Manas in determining its normal functioning.^[4] By virtue of which Manas is endowed with the capacity of concentrating, controlling the sense organs, thinking, judgment, argument and conclusion. These are further influenced by the volitional power of the Manas is the Buddhi. Buddhi discriminates between the Karya and Akarya and Shubha and Ashubha. It is because of this

discriminating faculty that the Manas are spoken as Buddhi.^[5]

The modern psychology also agrees about the functions of mind; it is the aggregate of thinking, judgment and conclusion. It directs and controls the senses to control oneself when one is getting away from right thinking imagination and ideation.

The understanding of entire physiology of the process of perception of Knowledge gyanotpatti is thus critical in identifying the levels of impairment of this function of Manas in diseases conditions. The Sharira and Mano dosha in their relative ratios to one another under normal conditions influence the quality of Manas functions and are responsible for abnormality when their homeostasis is lost. Certain influence of these doshas is already present since birth, which has been described in terms of Prakriti. Acharya Charaka has rightly provided a rationale to the description of certain abnormal behaviors under the prakriti. He has opined that all variants of Sharira and Manas Prakriti except the Sama Prakriti are Vikriti abnormalities, due to the clear dominance of any one particular Doshas over the others.

The individuals carrying the traits of these Prakritis will be more susceptible to the psychological disorders. In the ancient Indian classics the term, "Manas" has been used to employ brain The concept of Manas with that of brain can be out lined as follows. The function of Manas is to synthesize the sensory data into percept. This function is performed by the cerebral cortex of brain in our body.

The seat of Manas has been described as "Shirastalwantargat" by Acharya Bhela and this is also the position of brain mainly the cerebral cortex. The normality and abnormality of both the Manas and the brain can be inferred from their functions. The therapies and medications which are said to be acting on the Manas exert their effect on the CNS.

It is well established that all human beings do not respond in the same way to a given stimulus because they have different psychic and bodily constitutions. Manasabhava /emotions is a kind of psycho-physiological phenomenon, which expressed outwardly in the form of smiling, laughing, crying, screaming, running in flight and so as well as internally in the form of visceral and vascular changes through autonomic nervous system.

So with every emotion whole body is affected. During emotional stress through activation of autonomic nervous system and hypothalamus, different neuroendocrine changes Occur which in turn affect the normal homeostasis of body. When the emotion is continued for a longer duration the physical changes may themselves become to some degree modified or permanent.

As the balanced nourishment of root nurtures a tree, the considerate caring of head (Shirah) grows up the whole body. In Ayurveda, Ayu (life) is defined as conjunction of body, soul, mind and senses. Each has been given due importance in the maintenance of health and prevention and cure of disease. In Ayurvedic classics body is divided in to six parts viz. head, two upper extremities, trunk and two lower extremities. Amongst them head or “Shirah” is having paramount importance as the life along with sense faculties resides in it and all the vital psychosomatic functions are regulated by it. In Sushruta Samhita while defining “Swastha” – Prasanna atimendriya Manah is said to be the most important characteristic. So, health is defined as not only the normal functioning of Dosha, Dhatu and Agni along with proper erection of Mala but, it also includes clarity of senses, mind and soul in the child.^[6]

ADHD is commonly identified in the age group 2-7 years that is in preschool aged children. In this study also 21 patients are belongs to age in between 2-6, and 29 patients was in between the 7-11. Socio economic

group not directly related to ADHD, but there will be marked stress in poor and middle socioeconomic groups the financial stress may cause so many psychological stress in pregnant mothers. Based on father’s occupation out of 60 the highest number that is 32 were belongs to business, hence they due to financial tensions their children are neglected.

Out of 60 patients mothers 46 were housewives, hence they can spend the stipulated time with their children, even though the children are developed behavioural problem only because busy with household things. Based on educational status 47 were illiterates so they cannot organize the things properly they cannot help their child in school works like home work and clarifying the doubts.

In this study out of 60 only 7 were with positive psychological family history. It proves that no compulsion in having family history of psychological problems.

During the antenatal period the most of the mothers suffered with some problem in the antenatal period like trauma, hypertension, diabetes mellitus, and hyper emesis gravidarum.

Head controls the all activity, as it is superior organ of the body. The continuous stream of medicated Takra on forehead may help in stimulation of Agyachakra which manifest the control over unorganized thought. Medicated Takra had the property of pacify the vitiated vata which is main cause for manasa vikara (ADHD). The active ingredient of medhya rasayana absorbs through skin and tranquilizing the hyperactive brain.

CONCLUSION

Being a very common psychiatric problem of preschool aged children ADHD widely discussed and treated with psycho stimulant

drugs, even though there is no much significant improvement and addition to that there are lot of side effects. In Ayurveda Takradhara shows good result in treating not psychological but also somatic disorder too. In this context this study has proved its significance with good results. The ADHD is common in the mothers who are under severe psychological stressors during pregnancy. It is more common in boys when compare with girls. There was a significant improvement in clinical manifestations after the Takradhara treatment. Sleep of all patients found to be improved. Parents are also felt happy with the reduction in the hyperactivity, inattention and impulsivity. It was also proved on statistical basis (p value < 0.005). The school performance also improved after therapy which is particularly observed by the teachers and themselves they are encouraged the parents to continue the Takradhara treatment.

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