

## **A CLINICAL STUDY ON THE EFFECT OF MONETA WELLNESS NONI IN HYPER ACTIVE CHILDREN**

### **ABSTRACT:**

Kaumarbhritya or Bala Chikitsa is one of the eight branches of Ayurveda. Kashyapacharya has placed it above all the others. The incidence of child psychiatric disorders is on a rise and the treatment options available are not satisfactory.

Hyperactivity is one of the most common psychoneurobehavioral problem of childhood. The concept of Medhya Rasayana which has is a special category of Rasayana for the management of mental disorders is thus applicable in this context.

In the present study the drug MONETA WELLNESS NONI (containing tonics like Bacopa moneire, Withania somnifera and Rajat Bhasma) was selected for evaluation of its effect on hyperactive children. Total 20 patients were registered in the study out of which 19 completed the treatment. The patients were randomly divided in 2 groups. Group A - MONETA WELLNESS NONI, Group B Placebo syrup.

The drug showed highly significant results in improving criteria of Inattention. The overall results showed that the drug had better results over the placebo.

### **INTRODUCTION**

As the term, KAUMARBHRITYA suggests; Ayurvedic Pediatrics highlights the child rearing i.e. Kumara Bharana as the main aspect of this field.. The concept of health in Ayurveda not only means physical health but also the mental well being of a person.

The recent demographic studies report that 1/3<sup>rd</sup> of the world's population is of children below 15 years of age. These statistics definitely increase the responsibility of pediatric community from both Ayurveda well as the modern contemporary sciences towards the society.

The incidence of childhood psychiatric disorders is on a rise. Hyper activity in children is the most common psychoneuro behavioral problem of childhood, which has the highest incidence among the developmental disorders in India.

It is characterized by inattention, including increased distractibility and difficulty sustaining attention, poor impulse control and decreased self inhibitory capacity, and motor over activity and motor restlessness. The disease may persist in to adulthood, compromising the child on various fronts of life.

The treatment options provided by the contemporary medicine in Hyperactive children like the stimulant medications are becoming notorious for their side effects. A need was thus felt for exploring the Ayurvedic lines of management for this disease.

**AIMS AND OBJECTIVES:**

The research work was planned with the following aims and objectives.

- (1) To study the effect of Moneta wellness noni in the management of hyper activity in Children.
- (2) To see the adverse effects of the same if any.

**MATERIALS AND METHODS**

Patients- For the clinical study, patients and students fulfilling the DSM-IV criteria for diagnosis of "hyper activity" were selected.

**Drugs:**

Moneta wellness Noni and Placebo syrup (Plain sugar syrup)

**CRITERIA FOR INCLUSION**

School going children aged between 7-12 years of age with poor academic achievements, poor concentration, increased distractibility, motor restlessness were included in the study.

**CRITERIA FOR EXCLUSION:**

1. Children not fulfilling the DSM-IV criteria.
2. Children with mild to severe mental retardation were included.
3. Children with chronic ailments like tuberculosis, malignancy etc. were excluded.
4. Children with Thalassemia, leukemia, oppositional defiant disorders, conduct disorders were excluded.

**TREATMENT PROTOCOL:****Grouping:**

The patients identified as suffering from ADHD were randomly divided into two groups irrespective of their sex, religion and socio-economic status;

1. Group-A Moneta wellness noni
2. Group-B Placebo syrup.

**Posology :**

1. Group-A Moneta wellness noni :  
Dose : 10 ml / day in divided dose i.e. 5 ml / 2 times a day.  
Duration : 6 weeks - 12 months
2. Group-B Placebo syrup  
Dose : 10 ml / day in divided doses i.e. 5 ml / 2 times per day

Duration : 6 weeks - 12 months

**Criteria for Assessment of Patients:**

For the diagnosis of ADHD and for assessment of ADHD children, following tests were adopted.

**Subjective Criteria:**

DSM-IV criteria for diagnosis of children with ADHD

The diagnostic criteria for DSM-IV were used for the subjective scoring of the symptoms of the disease. Inattention, hyperactivity and impulsivity were measured by obtaining a four point rating of the DSM-IV items. The scoring was done ranging from 'never' to 'very often' as given below.

Never	0
Often	1
Quite often	2
Very often	3

**Objective Criteria:**

Gujarati Adaptation of Wechsler Intelligence Scale for Children by Dr. Mahendrika C. Bhatt was used to assess the I.Q.

The children diagnosed as ADHD by DSM-IV, were further assessed for their I.Q. for this purpose Gujarati Adaptation. of Wechsler Intelligence Scale (GAWISC) for Children was used. The test was done before and after the treatment regimen. The GAWISC comprises the following twelve tests - six Verbal and six Performances.

**Verbal tests :**

General information  
General comprehension  
Arithmetic  
Similarities  
Vocabulary  
Digit span

**Performance tests :**

Picture completion  
Picture arrangement  
Block design  
Object assembly  
Coding  
Mazes

**OBSERVATIONS OF CLINICAL STUDY**

1. Out of the 200 students surveyed 32 students were fulfilling DSM - IV criteria for diagnosis of ADHD, 20 out of which were included in this study 19 patients completed the course of treatment while 1 patient from Group 1 withdrew from the treatment against medical advice.
2. Majority of the patients i.e. 95% belonged to the age group of 7-9 years while only 1 patient i.e. 5% belonged to age group of 10-12 years.
3. Majority of the patients were male i.e. 80% while 20% were female patients.
4. Majority i.e. 85% of the patients were poor academic achievers. While performance of 15% patients was inconsistent
5. Maximum i.e. 60% of the patients included in the study had predominantly inattentive type of ADHD. While 40% had a combined type of ADHD. None of the patients were found to be having a predominantly hyperactive impulsive types.

## RESULTS

### Effect of the therapy on core symptoms of ADHD in group A

#### 1. Inattention

Moneta wellness noni showed highly significant ( $P < 0.001$ ) and 36% results in controlling (a) inattention in school work and daily activities.

Highly significant ( $P < 0.001$ ) and 35.06% results were also seen in lowering (b) difficulty in sustaining attention in task and play activities.

Highly significant results ( $P < 0.01$ ) were seen in (d) inability to follow on instructions and failure to finish school work.

Results were highly significant ( $P < 0.01$ ) in controlling (e) dislike and avoidance of engaging in activities or tasks that required sustained mental effort.

The results of the test drug were highly significant  $P < 0.01$  and  $P < 0.001$  respectively in (g) distraction with extraneous stimuli and (h) forgetfulness in daily activities.

#### 2. Hyperactivity :

In the Group A none of the symptoms of hyperactivity were reduced to statistically significant level by the drug. 30% relief was observed in (e) "driven by a motor" like activity of the child, the changes however were statistically non significant.

#### 3. Impulsivity :

The drug showed statistically significant ( $P < 0.02$ ) results in reducing (h) difficulty in awaiting turn and (i) interrupting other ( $P < 0.05$ ). While insignificant 25% relief was also observed in (g) blurting out of answers before completion of question.

### Group B

#### 1. Inattention :

The Group B Placebo syrup treated group showed significant ( $P < 0.05$ ) relief in (a) failure to give close attention to details, (d) not following on instructions and (i) difficulty in organizing tasks and activities. The relief was highly significant ( $P < 0.02$ ) in (b) difficulty in sustaining attention and (g) easy distraction. The relief was 30.73% respectively in (b) and (g). Highly significant relief ( $P < 0.01$ ) were also seen in (h) forgetfulness in daily activities. The relief was 26.00% in (h). A 34% relief was also seen in (e) Dislike, avoidance in engaging in activities requiring sustained attention, the relief however was statistically insignificant.

#### 2. Hyperactivity :

No changes were seen the criteria of hyperactivity after treatment with placebo syrup. A negative effect was seen in (d) difficulty in playing or engaging in leisure activities quietly as it was worsening.

#### 3. Impulsivity :

The criteria for impulsivity remained unchanged after the treatment

### Total effect of therapy in subjective criteria.

None of the groups showed marked improvement in improving core symptoms of ADHD. In moderate improvement was seen in total of 10.53% patients which was 10% in Group A and 11.11% in Group B. Mild improvement was seen in 70% of Group A and 11.11% of Group B i.e. total 42.11% patients in both the groups. The symptoms of ADHD remained

unchanged after the therapy in 20% patients of Group A and 77.78% patients of Group B i.e. a total of 47.37% patients in both the groups. The results of the therapy on relieving symptoms of ADHD shows that the Group A i.e. Moneta wellness noni showed better results than Group B i.e. placebo syrup.

## **OBJECTIVE CRITERIA**

### **EFFECT OF THERAPY OF ON GAWISC IN GROUP A**

The results of Group A patients showed highly significant improvement ( $P < 0.001$ ) in General information 14.28%, General comprehension 34.92%, Digit span and Mazes ( $P < 0.02$ ), 21.13%. A statistically significant improvement ( $P < 0.05$ ) was also seen in Picture completion. The changes in the other items were statistically insignificant.

### **GROUP B**

The Group B treated with Placebo syrup showed statistically highly significant improvement at the level of  $P < 0.001$  in Block design and at the level of  $P < 0.01$  in Mazes. The changes in other items were statistically insignificant while negative results were obtained in Coding, Similarities and Arithmetic.

### **TOTAL EFFECT OF THERAPY IN OBJECTIVE CRITERIA**

Moderate improvement in GAWISC was seen in 30% patients of Group A and none of the patients in Group B i.e. a total of 5.26%. The results of the therapy on GAWISC show that the showed better results than the placebo.

## **DISCUSSION**

The medhya karya of medhya rasayana s does not occur by increasing the dheer, smriti and dhriti or buddhi as a whole. Since these constituents of the volitional power of mind are genetically pre determined, their powers cannot be increased quantitatively by giving medhya rasayana. This special category of rasayana dravya may be therefore improving the medha qualitatively. That is if we review the description of process of jnanotpatti it is clearly evident that any sort of block or dysfunction in the series of changes that have to occur in this process will lead to improper functioning of manas i.e. a decreased exhibition of medha. If this block is cleared a qualitative improvement will occur in medha and its components. The medhya rasayana may be chiefly acting by clearing and facilitating the pathways of jnanotpatti by the virtue of which functioning of dheer, dhriti and smriti are improved, diseases can get controlled and normal functioning of the manas can be ensured. The results of the therapy in the present study also support this hypothesis as the drug could show highly significant results in improving the individual test scores of the GAWISC.

## **CONCLUSION**

Effects of Moneta wellness noni were found to be better over the placebo syrup in both the subjective and objective criteria.

Moneta wellness noni provided highly significant results in improving the digit span test of GAWISC and also in relieving inattention, which indicates the capacity of the drug in improving attention and concentration.

No adverse effects of the drug therapy were observed during the study.