

Autism Spectrum Disorder treated with *Podophyllumpeltatum*- A Case Report

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Abstract:

Autism is a neurodevelopmental disorder of children with growing prevalence in the past few decades. It is a potentially disabling disorder which may persist lifelong if left untreated. The search for medicines which can address the core symptoms of Autism is still going on. Safer and effective medicines are being explored. A seven year old male child was brought to child psychiatry OPD of National Homoeopathy Research Institute in Mental Health (NHRIMH) with symptoms of Autism Spectrum Disorder (ASD) and was managed with homoeopathic remedy, *Podophyllum* in an individualized approach. Indian scale for Assessment of Autism (ISAA) was used to assess the severity. Baseline score of 110 (Moderate Autism) turned to 52 (No Autism) after 4 months of treatment and seven by the end of 1 year. Case was observed for one year and the child showed progressive improvement. Possible causal attribution of changes was explicitly depicted by Modified Naranjo Criteria. This case stresses the importance of characteristic symptoms in prescription.

Keywords: ASD, Autism, Individualized homoeopathy, *Podophyllum peltatum*,

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Introduction:

Autism spectrum disorder (ASD) is a neurodevelopmental disorder characterized by deficits in social communication, social interaction and the presence of restricted interests and repetitive behaviours.^[1] The onset is usually within the first three years of life.^[2] World Health Organization (2019) reported global ASD prevalence to be at 1 in every 160 children. In developed country like

the United States of America recorded an alarming increase in its prevalence from 1 in 500 children (a decade ago) to 1 in 68 (in 2014) and 1 in 54 (in 2016). In developing country like India, it is ranged to be between 0.15% to 1.01%. Prevalence of ASD in many low to middle income countries remains unknown.^[3]

Autism is a lifelong condition. Management of ASD is very challenging considering the

versatility of symptoms, the fact that symptoms may revoke and severity of symptoms may change over time.^[3] According to DSM V Autistic disorder, Asperger's disorder, and pervasive developmental disorder are consolidated into Autism spectrum disorder (299.00) as symptoms of these disorders represent a single continuum of mild to severe impairments in the two domains of social communication and restrictive repetitive behaviours/interests rather than being distinct disorders.^[4] Treatment of ASD includes Psycho-pharmacological interventions, speech and occupational therapies. It comes from the indications that long term usage of allopathic medication, in case of persisting symptoms (which is very common in ASD) may cause side-effects and induce drug-dependency which may not be safe for this population especially because they cannot express their problem.^[3]

There are several severity assessments scales to measure Autistic symptoms. Indian Scale for Assessment of Autism (ISAA) is an indigenous scale useful in the socio-cultural background of the sub-continent.^[5] To gain a proper picture of the pragmatic communication skills of a child on the autism spectrum, an assessment should take place by combining information from a structural assessment, a parental report or an interview, and observation of the child in a natural context.^[6]

Some studies were conducted previously on Autism in which Homoeopathic medicines were found to be effective.^{[7], [8]} But the approaches to arrive at the similimum according to the Homoeopathic principles were not disclosed. So a case report is presented here to show that approach in a child with ASD.

Case History:

A 7-year-old male child was brought by his parents to the Child Psychiatry OPD of

NHRIMH with poor communication, social interaction and peer play. He had reduced eye contact and repetitive hitting of head on walls. He had habit of eating paper with hurting tendency to others. He was restless and hyperactive. The symptoms were observed before 3 years of age. But parents thought it was of normal childhood mischievousness. When he was admitted to kinder garden, teachers suggested taking a consultation as he was not mingling with other children and often injuring them. Then consulted a Psychiatrist and he was provided with medicine which they couldn't continue as the child became drowsy. As there is progressive worsening of symptoms parents brought him to NHRIMH.

Past history: There were no other relevant complaints in the past.

Family history: Mother has hypothyroidism, Father has squint. Paternal grandparents died of Myocardial infarction. Maternal aunt died of Breast cancer.

Pregnancy history of mother: Mother had 2 repeated abortions. Mother was much anxious during pregnancy as she had 2 miscarriages earlier.

Birth history: He was born at full term with Caesarean section. Birth cry was present and there was adequate birth weight. Fetal distress was there and infant suffered neonatal jaundice.

Developments: He had aversion to mother's milk. So, he was fed with formula feed. His milestones were all delayed. He preferred to play alone.

Physical generals: He has good appetite and thirst, Bowels and bladder are regular. He has aversion to sweets. His sleep is sound with grinding of teeth. He is sensitive to cold in general.

Mental generals: He is very sensitive, cries immediately when reprimanded. He has creative skills, making sculptures with dough and clay. He has love for nature. He likes to

watch movements of his pet fish in the fish tank at his house. He spends most of the time near it. He loves to travel and is cheerful during a drive.

On general examination he is moderately built with fair complexion. NAD.

Mental status examination (MSE): General Appearance and behaviour: He is restless and talking irrelevant words along with poor eye to eye contact. Psychomotor activity is increased. Frequent hitting head on the wall. Mood is stable. He is inattentive with poor

interpersonal relations and good general information and intelligence.

Methodology/ Treatment given:

The diagnosis of ASD was confirmed by the Consultant Psychiatrist. Baseline assessment was done with ISAA and the score was 110 (Moderate Autism). Based on the totality of symptoms (refer Figure no.1), he is given a dose of *Podophyllum peltatum* 30. Monthly follow up and interventions are given in table No.1 and Change in ISAA score after intervention is shown in Figure No.2

Table-1: Follow up of the case:

Month	Observation	ISAA score	Treatment
Baseline	Poor interaction & peer play Lack of Eye contact, Repetitive hitting of head on walls, Eating paper, restless and hyperactive, hurting others	110	<i>Podophyllum</i> 30/ <i>1dose</i>
2	Mild >	102	<i>Nihilinum- 1 month</i>
3	Mild >	101	<i>Nihilinum- 1 month</i>
4	Eye contact became sporadic, hitting head reduced in frequency, not eating papers, hurting others persists	52	<i>Nihilinum- 1 month</i>
5	Interaction better than first visit, Eye contact improved, occasional hurting	28	<i>Nihilinum- 1 month</i>
6	Status quo	28	<i>Podophyllum</i> 30/ <i>1dose</i>
7	Peer play poor, occasional hurting of others, interaction better than before. Generals -improved	23	<i>Nihilinum - 1 month</i>
8	Remarkable improvement. Hurting tendency- nil, Playing with other children, but not taking initiative for play, interaction better	7	<i>Nihilinum- 1 month</i>
9	Better in general.	7	<i>Nihilinum- 1 month</i>
10	Better in general.	7	<i>Podophyllum</i> 30/ <i>1dose</i>
11	Better in general.	7	<i>Nihilinum - 1 month</i>
12	Trying to cooperate with other children in play activities, but initiative not much, eye contact and communication good	7	<i>Nihilinum- 1 month</i>

Table-2: Causal attribution to Modified Naranjo Criteria:

No	Please answer the following questionnaire and give the pertinent score Yes	Yes	No	Not sure N/A
1	Was there improvement in the main symptom or condition for which the Homoeopathic medicine was prescribed?	+2√	-1	0
2	Did the clinical improvement occur within the plausible timeframe relative to the drug intake?	+1√	-2	0
3	Was there an initial aggravation of symptom?	+1	0√	0
4	Did the effect encompass more than the main symptom or condition?	+1√	0	0
5	Did overall well-being improve?	+1√	0	0
6A	Direction of cure: did some symptoms improve in the opposite order of the development of symptoms of the disease?	+1	0	0√
6B	Direction of cure: did at least two of the following aspects apply to the order of improvement of symptoms? -from organs of more importance to those of less importance? -from deeper to more superficial aspects of the individual? -from the top downwards?	-1	+1	0√
7	Did "old symptoms"(defined as non cyclical symptoms that were previously thought to have resolved) reappear temporarily during the course of improvement?	+1	0√	0
8	Are there alternate causes (other than the medicine) that- with a high probability-could have caused the improvement?	-3	+1√	0
9	Was the health improvement confirmed by any objective evidence? (Lab tests, Clinical observation etc.)	+2√	0	0
10	Did repeat doing, if conducted, create similar clinical improvement?	+1√	0	0
	Total	9		

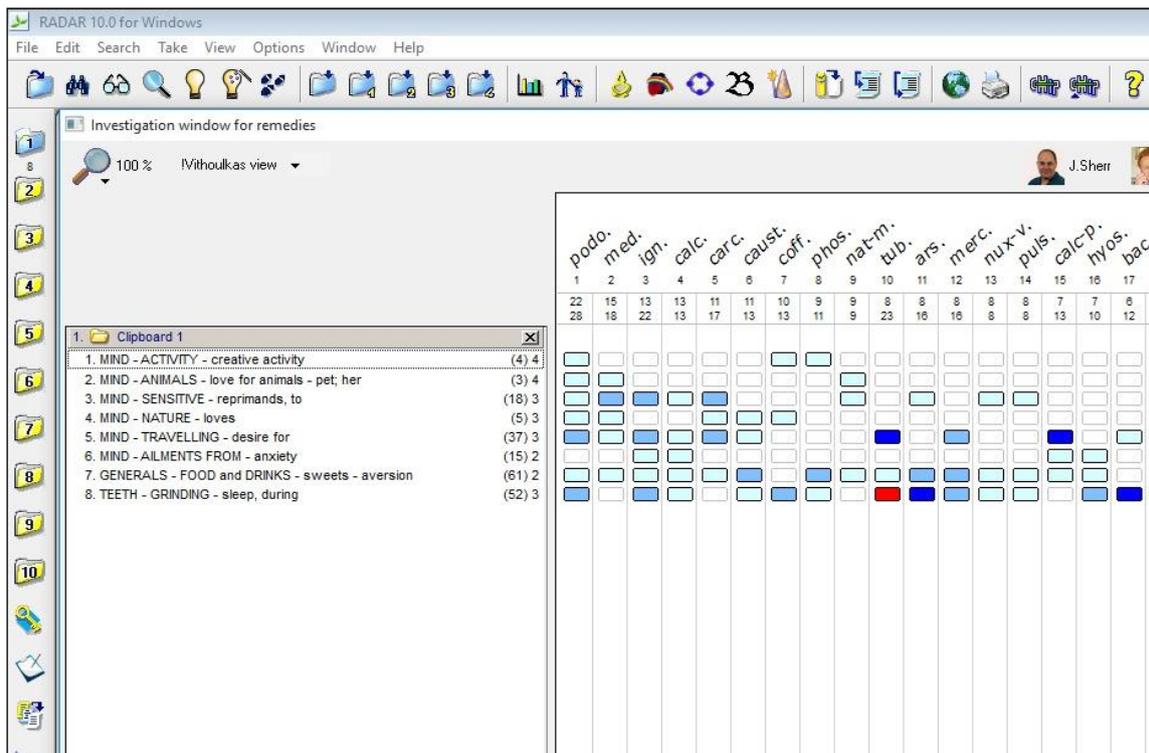


Figure- 1. Repertorisation chart

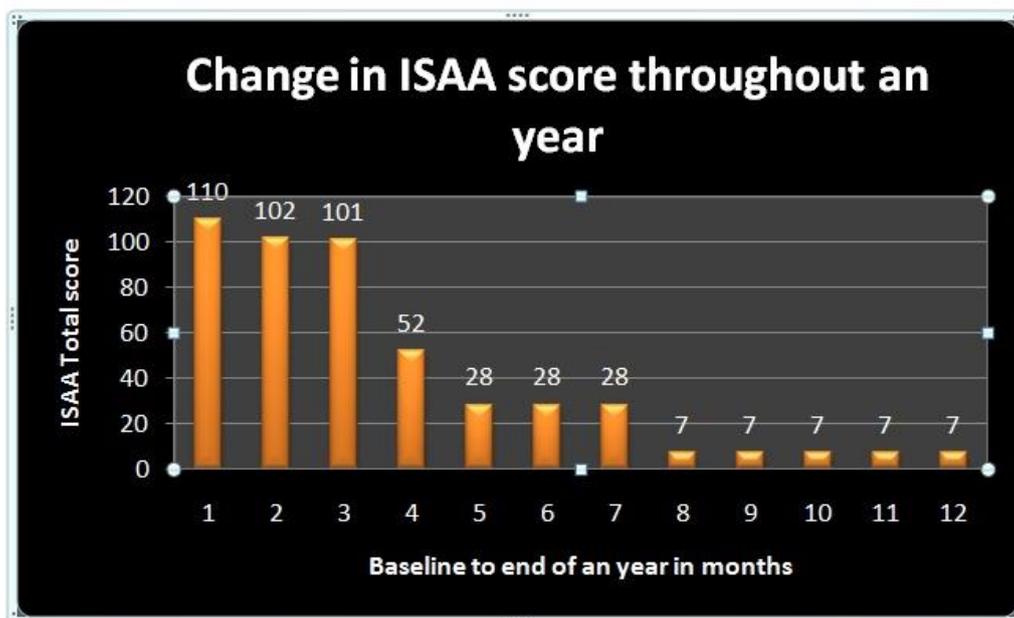


Figure-2: Change in ISAA score after intervention



Lord Ganesh statue made with play dough



Lamb made with play dough



Elephant made with Natural clay

Figure-3: Creativity of the patient (Child) after intervention

Result and Discussion:

No adverse events or Homoeopathic aggravation are identified in this case. There is a progressive reduction of autistic symptoms as well as improvement in the general condition of the patient. As no other medicine or therapy was given along with *Podophyllum*, the changes are attributable to the action of *Podophyllum*. Possible causal attribution of changes is explicitly depicted by Modified Naranjo Criteria. (Table-.2). Commonly indicated remedies for Autism spectrum remedies suggested by previous studies are *Carcinosinum*, *NatrumMuriaticum*, *Ignatia*, *Pulsatilla*, *Calcarea Carb*, *Stramonium*, *Silicea*, *Calcphos*.etc. *Podophyllum* was not found in any of the previous studies. [3] This emphasizes that each child is unique. So, the concept of individualizations bears high value in case of Autism.

Podophyllum is a proven remedy for greenish, putrid stools gushing out painlessly. Cholera infantum with involuntary stools during sleep. Clark cured many cases of the prolapsed anus in children with *Podophyllum*. [9] There are proved evidences that *Podophyllum* has a role in acute childhood diarrhoea [10] and also in summer diarrhoea. [11] Literature shows action of *Podophyllum* as a nematotoxic. [12] A case report by GhulamYaseen says that

Podophyllum has action in genetic disorders like Johnson-blizzard syndrome. [9] The extract of *Podo.*, *Podophyllotoxin* is found to be the most active component in inhibiting the replication of measles and herpes simplex type I viruses. [13] The ultra-high dilution of *Podo.* has demonstrated the effect on autistic symptoms in this case, but basically the process of cure through homoeopathy rests on the principle of individualization.

Autistic children can have special abilities called savant skills. These skills also vary among different children with autism in the form of music, art, calendar calculating, mathematics or mechanical/visual-spatial skills, and are usually associated with outstanding memory. [14] Which can be considered as the peculiar characteristic symptom of each children. This child also shows the special skill, that is creative activity in the form of sculpture making. Creative works of the child are shown in figure- 3.

It is very peculiar thing in Homoeopathy that an apparently insignificant symptom, insignificant to the patient, or to the orthodox physician, may be to us the strong pointer to the correct remedy. Patient might omit to tell the symptom or might mention it in a most casual manner and yet it may prove to be a very important symptom. [15] This correlates

with the teachings of Master Hahnemann in Organon of Medicine Aphorism 153 about the characteristic symptom. A golden rule in evaluation of symptoms is that the more peculiar, strange or rare a symptom, the more important it is.

Very few remedies (*Coffea, Podophyllum, Phosphorus, Symphytum*) are represented in Synthesis repertory under the rubric Mind-activity-creative activity. *Podo*. Also is represented under the rubric-Mind-animals-love for animals-pet her (*Medorrhinum, Natrummur, Podophyllum*).^[16]

Which helped in determining the choice of the similimum.

Conclusion:

This case demonstrates the usefulness of individualized homoeopathic remedy, *Podophyllum peltatum* in reducing the symptoms of Autism. Future studies are warranted. This case stresses the importance of characteristic symptoms in prescription.

Limitation of study:

The results of this case study are limited to moderate autism, the role of Podophyllum in Severe Autism is yet to be explored as and when the remedy is indicated. Homoeopathic concept of individualization cannot be stressed enough in determining the selection of similimum in the case of children with Autism

Patients consent:

Consent was obtained from parents of the child to publish the results of treatment in a scientific journal.

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