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Autism spectrum disorder intervention: The scope within homoeopathic system of medicine

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Abstract

Context: The prevalence of Autism Spectrum Disorder (ASD) is around 1 in 59, more than 2 million people identified with ASD in India. Yet, the knowledge about ASD and proven therapeutic cures of the condition are limited.

Methods and Material: Brief literature survey identified the genetic, neurobiological background, clinical presentation and diagnostic features of ASD. In addition, scientific evidences and effectiveness on the curability of the ASD with the system of homoeopathy investigated.

Results: 250 reportorial rubrics and more than 50 proven homoeopathic remedies identified and discussed. However, the existing controversy against the effectiveness homoeopathy, the curability of ASD with the individualized homoeopathic remedies for varied autistic features at the appropriate period has positive outcome.

Keywords: Theory of mind, MNS, echolalia, repetitive behavior, synthesis repertory

1. Introduction

The autism spectrum disorder (ASD) is a pervasive neuro-developmental disorder, interrupting overall psychosocial growth of the child with problems in social communication and have restrictive repetitive behaviors. However, there is no proven evidence of cure for the condition, early identification and interventions can improve the signs and symptoms of ASD population,^[9, 11]. The Homoeopathic system of medicine, a widely practiced alternative system of medicine has good scope in the intervention of ASD,^[3]. The survey has shortlisted around 250 reportorial rubrics and 50 homeopathic remedies relevant to the ASD.

2. Materials and Methods

The brief literature survey of medical textbooks, online journals and research evidences identified the genetic, environmental, neurobiological background and varied clinical presentation of ASD. The standard diagnostic manuals like DSM-V and ICD-11 referred for the diagnostic specifications of ASD. In addition, the scientific evidences on effectiveness and curability of the ASD with homoeopathy surveyed.

2.1. Etiopathogenesis

The worldwide prevalence of ASD is 1 in 59 children (2018-CDC update) and around two million in India^[2]. It has first identified by Dr. Leo Kanner (1943) as 'autistic disturbance of affective contact, having congenital inability to relate with the people in a natural way' and have unusual response to the environment,^[21]. However, the cause of the condition is uncertain, some factors like consanguineous marriages, aged parents, maternal malnutrition, complicated labor, premature births, low birth weight, fetal distress and neonatal asphyxia, genetic, environmental and immunological factors may be the reasons behind^[15]. The fragile-x mental retardation and tuberous sclerosis are common associated condition with ASD. The pathogenesis includes rare de-novo variations like CNV (copy number variations), chromatin modifications, and synaptic protein changes. Various studies on genetics globally identified more than 100 genetic and genomic changes associated with ASD. Family and twin studies show the major association among the blood relatives and siblings. Boys affected more in a ratio of 5-6:1 while comparing with female children,^[4].

On neurobiological studies, the autistic changes identified within early intra uterine life itself. Infant brain imaging studies (IBIS) identifies developmental disturbance in social part of brain within 3 to 6 months of age. Autistic child usually have enlarged head and brain size than normal child, have enlarged gray and white matters, with reduced neuronal thickness

and blocked axonal growth often. The abnormal emotional expressions may due to enlarged frontal, temporal lobes and early overgrowth of amygdale, a vital structure for emotional processing. The sticky visual attention and reduced eye tracking due to microstructure abnormality of the fibrous bundle associated with visual orientation. Functional MRI (fMRI) studies identified the hypo-activity of fusiform gyrus responsible for visual image processing, leads to difficulties in face recognition, [21]. The under activity of amygdale and limbic system, a reward system responsible for emotional-sensory processing and learning, leads to abnormalities in social interactions and difficulties in associated learning with socially relevant things in the environment, [19].

The latest researches on Mirror Neuronal System (MNS) at brain's constellation proved as responsible for Theory of Mind (ToM) abilities in perception, learning and imitation of movements and actions observed from others, language abilities, understanding the action and intention of others, [18, 19]. The deficit or thinner layer of mirror neurons identified as a cause for the ASD. The MNS present in the anterior insula and anterior cingulate cortex responsible for emotions and empathy. The social perception of nonverbal cues like facial expression, gestures, and eye gaze direction, understanding the intention of others by the MNS of posterior part of superior temporal sulcus. The understanding of reward values in emotional learning with the MNS of orbital prefrontal cortex and medial prefrontal cortex. The child's language and imagination skills developed with the MNS of inferior frontal cortex near broca's area. The MNS activated as early at early infantile life through the observation of the mother's actions and expressions. The reduced size and quantity of Mirror Neurons associated with the lack of acquisition of the above essential skills in ASD population, [19, 24]. Usually females have more mirror neurons than males, there on the more number of autistic males identified often.

2.2. Clinical presentation and diagnosis

Autism Spectrum Disorder characterized by early onset of severe delay and deviance in the development of social communication skills and unusual response to the environment (repetitive behaviors, difficulties with change, and unusual sensitivity to the inanimate environment). Defined as "persistent impairment in reciprocal social communication and social interactions, and restricted, repetitive patterns of behaviors, interests, or activities, these symptoms are present from early childhood and limit or impair everyday functioning"- (DSM-V), [17]. The DSM V diagnostic criteria specifies, ASD present with at least 3 social communicative symptoms and 2 restricted/ repetitive features and the deficits must be identified within the early developmental period with significant impairment in social occupational functioning, which are not explained by intellectual disability or global developmental delay, [1, 23].

ASD identified with abnormal communication like echolalia, being absorbed in their own world, difficulty in making friends, lack of eye contact and remains isolated. Often have inappropriate non-functional use toys and objects like licking, spinning, banging, and breaking, stereotyped, repetitive motor behaviors like hand flipping, finger flickering, body rocking, spinning, toe walking, lining up of toys, insistence on sameness, inflexible adherence to routines, extreme distress to small changes, highly restricted

fixated interests etc. Many have hypo/hypersensitivity to sensory impressions like closes ears to simple sounds or ignoring loud noises, fascinated with glittering colorful lights, reflected lights, looking at sun, aversion to hugging and touching or preoccupied with touching soft surfaces like furs and pillows, insensitive to severe injury or hypersensitive to least pain etc, [6]. Some have aversion to certain texture, taste or color of food and being selective eaters. ASD often co-occurs with intellectual deficiency, ADHD, learning disorders, seizures and other developmental disorders.

The diagnostic social communicative difficulties includes, The deficits in socio-emotional reciprocity like abnormal social approach, failure in normal back-forth conversation, reduced sharing of interests, mood and affect, failure to initiate or respond to social interactions and unusual communication like pronoun reversal, neologism, babbling, echolalia etc. The deficits in non-verbal skills like poorly integrated verbal and nonverbal communication, abnormal eye contact, facial expressions, gestures and poor understanding gestures of others. Difficulties in developing, maintaining, understanding relationships, difficult social adjustments, failure to make friends, lack of peer interests, failures in imitation and imaginative play etc.

The diagnostic Restricted, Repetitive pattern of Behaviors and Interests includes, stereotyped, repetitive motor mannerisms and object use like finger wiggling, hand flipping, body rocking, toe walking, lining up toys, spinning wheels, looking at fan, insistence on sameness, inflexible adherence to routines. The ritualistic behaviors, extreme distress to small changes, fixated interests like stares into space, looking objects in different angle, echolalia etc. Hypo or hyperactive to sensory inputs include, fascination with light and movements like whirling, apparent indifference to pain and temperature, excessive smelling and touching, adverse reaction to specific sounds and textures, etc.

2.3. Optimal intervention period of ASD

The growth of a child is inherent in nature by genetic predisposition to grow, a continuation of various periods of rapid changes in distinct areas of independent and inter-dependent development. External assaults like illness, toxins, drugs, x-ray and other radiation therapies are potentially damaging to developing brain during this period, [20]. On the other hand, this critical vulnerable period is most effective in restructuring the neuronal system. Even the child has the fully developed neurons at birth, the repeated exposure and experimenting with the environment stimulates new synapses formation. These neural pathways interact with genetically controlled proteins and enzymes to create neuronal parts of brain responsible for special functions. Under stimulated pathways, otherwise, leads to atrophy of brain part unused and it actively involves in destroying weakly formed synapses after the age of 10 years. The early intervention can activate the parts of brain responsible for ASD and prevent disused atrophy. The developing brain has the ability to plasticity; when toxic damage occurs, our brain can compensate functions by forming alternative neuronal pathways. The therapeutic intervention within this period will have the proven evidence of IQ gains, language development and improvement in social communicative skills, reduction in behavioral problems and overall severity of symptoms, [11, 19].

2.4. Intervention of ASD with homoeopathy

The Homoeopathic system of medicine has the proven benefits on various disease and disorders of human beings for more than three decades beyond the scope of modern medicine. The system of homoeopathy has its own scientific principles and practices, which can better explained by the law of physics and biology, ^[7, 12]. Homoeopathic medicines are prepared from various sources like plants, minerals and other biological substances. The substances underwent the process called 'potentization'- succession and dilution of the substance in to the least identifiable particles and as the lowest medical dosage without any unwanted side effects, ^[5, 14]. Homoeopathy predominantly based on mental manifestations of disease and disorders, handling the suffering individual as a whole personality rather than the parts of the body disordered. It takes into consideration of every mental, behavioral and physical manifestations of the disorder and considers as unique personality to be treated. Whichever may the disease and disorder, the similar homoeopathic remedies have the ability to treat the condition, ^[8]. While handling the disorders of children, takes into consideration of the parental medical and psychological history during the childbearing period. The early intervention of the autistic children with the homoeopathic medicines will have the positive effects on the social communicative skills and reduce the behavioral abnormalities, ^[3, 7].

3. Results

On considering every manifestations of ASD, around 250 reportorial rubrics selected with the android version of synthesis repertory –English, ^[13, 22]. The reportorial analysis of the 250 rubrics identified around 50 relevant homoeopathic medicines with the vast array of remedies, ^[16, 20]. The Table – A.1 to A.10 in appendix shows the reportorial rubrics with relevant chapters at the synthesis repertory. The tables B.1 and B.2 of appendix shows the 50 selected homoeopathic remedies with their symptoms totality and corresponding degrees from the above 250 reportorial rubrics. The therapeutic indications of some selected homoeopathic remedies given below

3.1. phosphorus: Over sensitiveness to all the external impressions, anxious and fearful, clairvoyant, apathy and indifference, exaggerated idea of one's own importance, Great tendency to start, excitable, restless, and fidgety, cannot sit or stand still for a moment. Hyposensitive and laughs over serious things.

3.2. Sulphur: Affections vitiated; being very selfish, no regard for others and depressed. Everything looks pretty and rags seem beautiful. Over sensitiveness to odors, have disgust, nausea with own body odors. Obstinate and dislikes to have anyone near him. Deafness; proceeded by exceedingly sensitive hearing, trembling of hands, stiffness of knees and ankles, unable to walk erect, stoop-shouldered. Catnaps and slightest noise awakens.

3.3. Lycopodium: Melancholy, little things annoy, extreme sensitiveness, averse to undertake new things, awakes angry sad and anxious, weak memory, confused thoughts, spells or write wrong words and syllables, misanthropic, cannot bear to see anything new. Sense of smell very acute, hears humming and roaring in the ears with hardness of hearing.

3.4. Belladonna: Lives on own world, retina insensible to objects, visual hallucinations and illusions. Very restless, become furious, rages, bites, strikes, spits on face, disinclination to talk, acuteness of all the senses and changeableness. Have acuteness of senses, sensitive to light, noise and jarring. Boring head into pillow, epileptic attacks, drawn backward and forward, rolls side-to-side, moaning, and hearing one's own voice. Sits and break pins.

3.5. Nux- vomica: Very irritable, angry and impatient, hypersensitive and over- impressionable to all the impressions mentally and physically, cannot bear noises, odors, light, music etc. does not want to be touched, least ailment affects her greatly, sullen, reproach others, fault finding. Loud sounds are painful, smells acute and fainting from odors. Spasms and titanic convulsions aggravated by least touch cannot bear pain and nagging.

3.6. Arsenicum album: Great anguish and restlessness, changes place continually, great fear with cold sweat, nightly aggravations. Have over sensitiveness, general sensibility Increased and sensitive to disorder and confusion. Often have trembling, twitching, and convulsive spasms of extremities. Violence; self-torture, pulls her hair, bites her nails, tears his own body. Roaring in hears, hard hearing to human voice, cannot bear the sight or smell of food.

3.7. Sepia officinalis: Indifferent to those loved best, averse to occupation, to company, family, irritable, easily offended, yet dreads alone, anxious and fearful over trifles very sad and anxiety in the evening. Do strange things, wants to go away, sits quiet or answers monosyllables great sensitivity to odors, nausea at the smell or sight of the cooking food, disposition to vomit after eating always. Have hysterical tonic, colonic spasms and fidgety. Child looks old, cannot bear reflected light and oversensitive to noise and music.

3.8. Calcarea carbonica: Scrofulous children with fatty, pot-bellied, large headed forgetful, poor learner, confused, misplace and express words wrongly. The child desires to go home, depressed, low-spirited, and melancholic, and weeps always. Anxious and suspicious, mischievous and obstinate, sits and thinks about nothing and breaks sticks or things all day. Have Sleeplessness and nightmares often.

3.9. Pulsatilla pratensis: The child is mild and gentle with yielding disposition, sad and readily weeps when talking, changeable, contradictory, ailments from abuse of drugs. Great sensitiveness, timid irresolute and likes caresses. Fear of being alone, of dark, ghosts, suspicious and miserly, answers yes or no or by nodding head.

3.10. Natrum muriaticum: Over sensitiveness to all sorts of influences, ill effects of grief, fright, anger, irritable, gets into a passion about trifle, wants to be alone to cry. Craving for salt, aversion to bread to anything slimy like oysters, fats. Awkwardness and hasty talking, drops things from nervousness, anxiety and apprehension, absent minded, scattered thoughts, abrupt and alternating mental conditions, extremely forgetful, late learning to walk.

3.11. Silicea terra: Scrofulous, rachitic children, with large head, open fontanelles and sutures, distended abdomen, slow in walking, ill effects of vaccination, sensitive to all impressions. An obstinate, headstrong child with fixed ideas, think only of pins, fears them, searches and count them with care. The child dragged on mother's arms or crawls nervously. Epileptic attacks with aura from solar plexus. Noise and light aggravates the problems.

3.12. China officinalis: Disposition to hurt others feelings, ideas crowd in mind preventing sleep. Disobedient, stubborn, fixed ideas, fear of dogs and other animals, sudden crying and tossing, ill-humored, air castles, indifference, sad and reluctant to speak, mistakes in speech. Have convulsions and periodic neurological complaints and being sensitive to noise.

3.13. Opium: Have insensibility of the nervous system, depression, drowsy, stupor, painlessness, torpor and general sluggishness and lack of vital reaction. The child wants nothing and unable to understand his suffering. Epilepsy from fright, light, anger etc. stupor between spasms. Wants to go home, thinking that he is not at home.

3.14. Ignatia amara: Have hyperesthesia of all the senses, timid, easily excited. Have rapid change of mental and physical conditions as opposite to each other. The child

often seems melancholic, sad, not communicating, sobbing and sighing. Have over sensitiveness to pain. Always he desires to be alone and capricious.

3.15. Hyoscyamus niger: The child seems suspicious, talkative, lascivious, foolish with great hilarity, inclined to talk at everything. The child attempts to run away with delirium and low muttering speech. Have convulsions with cramps and twitching. Motion of arms unusually, laughs, talks, babbles, quarrels foolishly. Often speaks louder, desire to strike, bite, and fight, insult scold, speechless with fear and Plays with fingers. Fear of imaginary things.

4. Conclusion

Autism spectrum disorder identified with lifelong disabilities, an appropriate early intervention can reduce the disability and helps them living up to an expected lifestyle. The intervention of ASD with individualized homoeopathic remedies on well-suited similarities has proven effective on reducing varied ASD features,^[8]. The study has the limitation of representing rubrics remedies given in the android version of few homoeopathic repertories and textbooks. Further, it has to consider varied other resources and texts in practice of homoeopathy. In addition, more number of clinical trials and verification of the effectiveness of the homoeopathy on varied autistic population required.

Tables A.1 to A.10: Table of rubrics relating ASD and corresponding chapters with synthesis repertory

Table – A.1		
Sl.no	chapters	Rubrics
1	MIND	ABSORBED
2	MIND	ABSTRACTION OF MIND
3	MIND	ACCIDENT-PRONE
4	MIND	ADAPTABILITY, loss of
5	MIND	ALLOOF
6	MIND	ANSWERING - monosyllables; in
7	MIND	ANSWERING - reflecting long
8	MIND	ANSWERING - refusing to answer
9	MIND	ANSWERING - repeats the question first
10	MIND	ANTAGONISM with herself
11	MIND	ANTICS; playing - children; in
12	MIND	ANXIETY – causeless
13	MIND	ASKING - nothing; for
14	MIND	ASKING - same thing; constantly the - time; the
15	MIND	AUTISM
16	MIND	AWARENESS heightened
17	MIND	AWKWARD - children, in
18	MIND	BEHAVIOR PROBLEMS - children; in
19	MIND	BITING - arms; bites his own
20	MIND	BITING - children, in
21	MIND	BITING – fingers
22	MIND	BITING - hands
23	MIND	BITING – himself
24	MIND	BITING – nails
25	MIND	BITING - nails - children; in

Table –A. 2

1	MIND	BITING – people
2	MIND	CARESSED; being - aversion to
3	MIND	CHANGE - aversion to - children; in
4	MIND	COLLECTS many things
5	MIND	COMPANY-aversion to-alone, amel; when
6	MIND	CONCENTRATION - difficult - children, in
7	MIND	CONTRADICTIONARY - actions are contradictory to intentions
8	MIND	DELUSIONS - absurd, ludicrous
9	MIND	DELUSIONS - hearing - illusions of
10	MIND	DESTRUCTIVENESS - children; in
11	MIND	DEVELOPMENT of children – arrested
12	MIND	DISTURBED; averse to being
13	MIND	DULLNESS - children, in
14	MIND	EATING - refuses to eat
15	MIND	EXPRESSING oneself - cannot express oneself
16	MIND	FEAR - animals, of
17	MIND	FEAR - birds
18	MIND	FEAR - cats; of
19	MIND	FEAR – causeless
20	MIND	FEAR - children, in
21	MIND	FEAR - crowd, in a
22	MIND	FEAR - dogs, of
23	MIND	FEAR - insects; of
24	MIND	FEAR - narrow place, in
25	MIND	FEAR - people; of - children, in

Table – A.3

1	MIND	Fearless
2	MIND	GESTURES, makes
3	MIND	GESTURES, makes – automatic
4	MIND	GESTURES, makes - awkward in
5	MIND	GESTURES, makes - feet; involuntary motions of the - stamping the feet
6	MIND	GESTURES, makes - fingers - playing with the fingers
7	MIND	GESTURES, makes - hands; involuntary motions of the - buttons of his clothes; plays with the
8	MIND	GESTURES, makes - hands; involuntary motions of the – clapping
9	MIND	GESTURES, makes - hands; involuntary motions of the - counting money; as if
10	MIND	GESTURES, makes - hands; involuntary motions of the - covering - face with their hands, but looking through their fingers - children; in
11	MIND	GESTURES, makes - hands; involuntary motions of the - covering - mouth with hands
12	MIND	GESTURES, makes - hands; involuntary motions of the - grasping
13	MIND	GESTURES, makes - hands; involuntary motions of the - grasping - mouth - everything in the mouth
14	MIND	GESTURES, makes - hands; involuntary motions of the - spinning and weaving
15	MIND	GESTURES, makes - hands; involuntary motions of the - waving in the air
16	MIND	GESTURES, makes - hands; involuntary motions of the - wringing the hands
17	MIND	GESTURES, makes - repeating the same actions
18	MIND	GESTURES, makes - ridiculous or foolish
19	MIND	GESTURES, makes - strange attitudes and positions
20	MIND	GESTURES, makes - talking - while talking; gesticulating
21	MIND	GESTURES, makes - tics; nervous
22	MIND	GESTURES, makes – violent
23	MIND	GESTURES, makes - wriggling
24	MIND	HEEDLESS
25	MIND	INCONSOLABLE – children

Table – A.4

1	MIND	INDIFFERENCE - everything, to
2	MIND	INDIFFERENCE - external impressions; to
3	MIND	INDIFFERENCE - external things; to
4	MIND	INDIFFERENCE - eating - to eating
5	MIND	INDIFFERENCE - family, to his
6	MIND	IMPULSE; morbid
7	MIND	IMPULSIVE
8	MIND	JUMPING
9	MIND	KICKING - children; in
10	MIND	LAUGHING – involuntarily
11	MIND	LOOKED AT; to be - cannot bear to be looked at - children; in
12	MIND	LOOKING – sideways
13	MIND	MEMORY - active - dates; for
14	MIND	MEMORY - active - done; for what one has
15	MIND	MEMORY - active - involuntary remembrance
16	MIND	MEMORY - active - music, for
17	MIND	MEMORY - active - names, for proper
18	MIND	MEMORY - active - narrow field; in a
19	MIND	MEMORY - active - numbers; for
20	MIND	MEMORY - active - past events, for
21	MIND	MEMORY - active - read; for what one has
22	MIND	MEMORY - active - seen; for what one has
23	MIND	MONOMANIA
24	MIND	MOOD – changeable
25	MIND	MOOD - changeable - children; in

Table –A. 5

1	MIND	SENSITIVE – surroundings
2	MIND	SENSITIVE - touch, to
3	MIND	SENSITIVE - want of sensitiveness
4	MIND	SPEECH - repeats - same thing; the
5	MIND	STRIKING - bystanders, at
6	MIND	STRIKING - children; in
7	MIND	STRIKING - desire - strike; to
8	MIND	STRIKING – himself
9	MIND	STRIKING - himself - knocking his head against wall and things
10	MIND	SITTING - inclination to sit - stare;
11	MIND	STARING, thoughtless
12	MIND	STRIKING - children; in
13	MIND	SUCKING - objects into the mouth; sucking
14	MIND	TALKING - one subject; of nothing but
15	MIND	TIMIDITY – bashful
16	MIND	TIMIDITY - children; in
17	MIND	TIMIDITY - public; about appearing in
18	MIND	TOUCHED - aversion to be
19	MIND	TOUCHED - aversion to be - children; in
20	MIND	TOUCHING - impelled to touch – everything
21	MIND	TOUCHING - impelled to touch - everything - children, in
22	MIND	WEEPING – causeless
23	MIND	WEEPING - causeless - without knowing why
24	MIND	WEEPING - children, in
25	MIND	WILL - contradiction of

Table – A.6

1	MIND	SENSITIVE – surroundings
2	MIND	SENSITIVE - touch, to
3	MIND	SENSITIVE - want of sensitiveness
4	MIND	SPEECH - repeats - same thing; the
5	MIND	STRIKING - bystanders, at
6	MIND	STRIKING - children; in
7	MIND	STRIKING - desire - strike; to
8	MIND	STRIKING – himself
9	MIND	STRIKING - himself - knocking his head against wall and things
10	MIND	SITTING - inclination to sit - stare;
11	MIND	STARING, thoughtless
12	MIND	STRIKING - children; in
13	MIND	SUCKING - objects into the mouth; sucking

14	MIND	TALKING - one subject; of nothing but
15	MIND	TIMIDITY – bashful
16	MIND	TIMIDITY - children; in
17	MIND	TIMIDITY - public; about appearing in
18	MIND	TOUCHED - aversion to be
19	MIND	TOUCHED - aversion to be - children; in
20	MIND	TOUCHING - impelled to touch – everything
21	MIND	TOUCHING - impelled to touch - everything - children, in
22	MIND	WEEPING – causeless
23	MIND	WEEPING - causeless - without knowing why
24	MIND	WEEPING - children, in
25	MIND	WILL - contradiction of

Table A. 7

1	MIND	UNOBSERVING [= inattentive]
2	MIND	UNOBSERVING [= inattentive] - spoken to, when
3	MIND	UNOBSERVING [= non-conformism]
4	GENERALS	ACTIVITY – increased
5	GENERALS	ANALGESIA
6	GENERALS	ANALGESIA - Affected parts
7	GENERALS	ANESTHESIA [= insensibility]
8	GENERALS	ENERGY - excess of energy
9	GENERALS	ENERGY - excess of energy - children; in
10	GENERALS	FOOD and DRINKS - aromatic drinks – desire
11	GENERALS	FOOD and DRINKS - bananas – aversion
12	GENERALS	FOOD and DRINKS - bland food – desire
13	GENERALS	FOOD and DRINKS - chalk – desire
14	GENERALS	FOOD and DRINKS - chocolate – desire
15	GENERALS	FOOD and DRINKS - coarse food – desire
16	GENERALS	FOOD and DRINKS - cooked food – aversion
17	GENERALS	FOOD and DRINKS - crispy food – desire
18	GENERALS	FOOD and DRINKS - delicacies – desire
19	GENERALS	FOOD and DRINKS - drinks – aversion
20	GENERALS	FOOD and DRINKS - dry food – desire
21	GENERALS	FOOD and DRINKS - earth – desire
22	GENERALS	FOOD and DRINKS - farinaceous – agg
23	GENERALS	FOOD and DRINKS - food - aversion - eating - attempting to eat; on
24	GENERALS	FOOD and DRINKS - food - aversion - eating - little; after eating a
25	GENERALS	FOOD and DRINKS - food - aversion - seen; if food is

Table – A.8

1	GENERALS	FOOD and DRINKS - food - aversion - smell of
2	GENERALS	FOOD and DRINKS - food - desire - worse; which makes him
3	GENERALS	FOOD and DRINKS - fried food – desire
4	GENERALS	FOOD and DRINKS - fruit – aversion
5	GENERALS	FOOD and DRINKS - fruit – desire
6	GENERALS	FOOD and DRINKS - indigestible things – desire
7	GENERALS	FOOD and DRINKS - lime, slate pencils, earth, chalk, clay – desire
8	GENERALS	FOOD and DRINKS - liquid food – desire
9	GENERALS	FOOD and DRINKS - milk – aversion
10	GENERALS	FOOD and DRINKS - pastry – aversion
11	GENERALS	FOOD and DRINKS - pastry – desire
12	GENERALS	FOOD and DRINKS - raw food – desire
13	GENERALS	FOOD and DRINKS - solid food – aversion
14	GENERALS	FOOD and DRINKS - stimulants – desire
15	GENERALS	FOOD and DRINKS - strange things – desire
16	GENERALS	FOOD and DRINKS - sweets – aversion
17	GENERALS	FOOD and DRINKS - sweets – desire
18	GENERALS	DEVELOPMENT - arrested
19	GENERALS	ENERGY - excess of energy
20	GENERALS	PAINLESSNESS of complaints usually painful
21	GENERALS	WALKING - learning to walk – late
22	HEAD	KNOCKING head against things
23	HEAD	LARGE SIZE
24	EYE	LOOKING - light; at - bright light
25	EYE	LOOKING - light; at - sun; into the

Table –A. 9

1	EYE	LOOKING - long time at something; for a
2	HEARING	ACUTE - music, to
3	HEARING	ACUTE - noise; to
4	HEARING	ACUTE - noise; to- rumpling of paper
5	HEARING	ACUTE - noise; to- scratching on linen and silk
6	HEARING	ACUTE - noise; to - slightest noise
7	HEARING	ACUTE - noise; to - slightest noise - louder noises; not so much disturbed by
8	HEARING	ACUTE - voices and talking - her own
9	HEARING	ACUTE - voices and talking - her own - loud; seems very
10	FACE	EXPRESSION – vacant
11	NOSE	SMELL – acute
12	NOSE	SMELL - acute – flowers
13	NOSE	SMELL - acute – food
14	NOSE	SMELL - acute – perfumes
15	NOSE	SMELL - acute - strong odors
16	NOSE	SMELL - acute- unpleasant odors
17	MOUTH	TASTE – acute
18	MOUTH	TASTE - acute – excessively
19	STOMACH	APPETITE - capricious appetite
20	STOMACH	APPETITE – changeable
21	STOMACH	APPETITE – increased
22	STOMACH	APPETITE - increased - eating - cannot eat
23	STOMACH	APPETITE - indifference to food and drink
24	STOMACH	APPETITE – ravenous
25	STOMACH	APPETITE – wanting

Table –A. 10

1	STOMACH	NAUSEA - children; in
2	STOMACH	NAUSEA - food - smell of
3	STOMACH	NAUSEA - odors – agg
4	STOMACH	NAUSEA - vomit; sensation as if about to – eating
5	STOMACH	VOMITING - children; in
6	EXTREMITIES	AWKWARDNESS
7	EXTREMITIES	AWKWARDNESS - children; in
8	EXTREMITIES	AWKWARDNESS – Fingers
9	EXTREMITIES	AWKWARDNESS - Lower limbs - stumbling when walking
10	EXTREMITIES	RESTLESSNESS – Feet
11	EXTREMITIES	MOTION - Feet - constant motion
12	EXTREMITIES	MOTION - Fingers – constant
13	EXTREMITIES	RESTLESSNESS – Feet
14	EXTREMITIES	RESTLESSNESS - Feet - sitting agg
15	EXTREMITIES	RESTLESSNESS – Fingers
16	EXTREMITIES	RESTLESSNESS – Hands
17	EXTREMITIES	RESTLESSNESS – Legs
18	EXTREMITIES	STIFFNESS – Feet
19	EXTREMITIES	STIFFNESS – Fingers
20	EXTREMITIES	TOTTERING GAIT
21	EXTREMITIES	WALKING – backwards
22	EXTREMITIES	WALKING - lifting legs too high
23	EXTREMITIES	WALKING - shuffling gait
24	EXTREMITIES	WALKING - stooped gait
25	EXTREMITIES	WALKING - toes; walking on

Tables – B.1 and B.2: The table of selected remedies with symptoms totality and degree of grading with synthesis repertory

Table – B. 1			
Sl.no	Remedies	Sum of symptoms degree	Sum of rubric symptoms
1	Phos	159	99
2	Sulph	153	104
3	Lyco	148	96
4	Bell	138	91
5	Nux-v	128	82
6	Ars	126	85
7	Sep	124	79
8	Calc	121	81
9	Puls	114	72
10	Nat-mur	110	79
11	Sil	109	77
12	Chin	102	67
13	Op	99	65
14	Ign	93	61
15	Lach	89	67
16	Hyos	89	64
17	Cocc	88	54
18	Bary-c	85	55
19	Graph	82	57
20	Cham	81	53
21	Acon	81	48
22	Zinc	80	60
23	Stram	80	57
24	Phos-ac	80	49
25	Verat	79	55

Table – B. 2

1	Tarent	78	60
2	Tub	78	58
3	Caust	67	50
4	Aur	67	43
5	Plumb	64	51
6	Merc	64	48
7	Con	63	47
8	Agar	63	42
9	Hell	62	37
10	Carc	60	52
11	Staph	59	46
12	Coff	59	29
13	Med	58	46
14	Nux-m	58	37
15	Cupr	57	48
16	Nat-c	54	36
17	Alum	50	33
18	Thuja	48	42
19	Arg-n	48	33
20	Asar	47	26
21	Anac	42	35
22	Bufo	34	34
23	Flur-ac	33	26
24	Mur-ac	31	20
25	Syph	30	23

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