

Importance of Panchakarma in Day-To-Day Pediatric Practice

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ABSTRACT: - Ayurveda is the branch of science which deals with the ailments of the adults as well as the children. It is one of the primitives and foremost holistic healthcare systems, which lays a strong focus on prevention and seeks to create and preserve harmony in the body and mind. Ayurveda has its eight branches out of that one branches is known as Kaumarbhritya, focuses on the treatment of the ailments and the care of infants and children. This discusses child up-bringing techniques, mother's breast milk purification, illnesses caused by consuming tainted breast milk, and their management. Many medications are given to children and to the mother along with Panchakarma therapy as the management of the diseases occurs in children and infants caused by vitiated breast milk. Panchakarma (penta-purification) is consisting unique set of procedures which are helpful in getting rid of the body's vitiated Doshas, which imbalances as a result of poor food and exercise, habits, as well as seasonal and environmental changes. Since children's disease types and prevalence differ from those of adults due to differences in the physiological combination of Dosha (Vata, Pitta, and Kapha), Dushya, and Mala, paediatric care requires the use of a variety of management techniques for diseases. In Kaumarbhritya, Panchakarma play a crucial part in the management of several ailments. Chikitsa. According to the Ayurveda classics, this is the only way to cure the disease from the roots. The Panchakarma method is effective in bringing the Doshas into their equilibrium state by ameliorating the aggravated Doshas. In this paper, author make an effort to explain importance of Panchakarma in the paediatric practice by explaining the all procedures with their practical utility.

Keywords: Panchakarma, Shaman, Shodhan, Children

I. INTRODUCTION: -

As per the Ayurveda Classics the Panchakarma procedures are important part of the

treatment and produce the tremendous effects in the patient. The Chikitsa in Ayurveda is divided into the two categories: Shodhan and Shamana Chikitsa. Shodhan refers to the purification or detoxification of the body by the expulsion of the disoriented Doshas (morbid substances inside the body that cause various ailments). Shamana is the symptomatic sedation of the symptoms without elimination of vitiated Doshas from the body. Bala, Kala, Desh, Agni, tolerance capability, and other factors should be considered before using the therapy in any age group. Paediatric Panchakarma is considered as controversial tangent in Ayurveda because of the anatomical and physiological difference present between the children and that of the adult. Acharya Kashyap, known as specialist of Kaumarbhritya, clearly says that both mother and the child should be administered with Shodhan according to the demand of condition. This clarifies clears all contradictory opinions about Paediatric Panchakarma.^[1] Kashyap Samhita describes Panchakarma in a child, with detailed explanations of Snehana, Swedana, Vamana, Virechana, Basti and Nasya. According to Acharya Kashyap Basti is Amritam for the children.^[2] Acharya advices doing the Garbhodaka Vamana procedure after the delivery of the new-born since there are chances, that the neonate would aspirate meconium,^[3] Saindhava and Ghrita are given to new born during this procedure.^[4] In other context Acharya told those neonates who regurgitates the milk after breast feed, after the process of Garbhodaka Vamana, never suffers with the disease due to expulsion of excessive Kapha Dosha.^[5]

Children's bodies and physiologies differ greatly from those of adults; they are not considered as small adults. The difference of child from an adult lies in the physical conditions of a child being viz- Soukumaryata (having soft and tender body structure), Alpakayata (under developed organ systems), Vividha Anna Anupasevanata (GIT not fit to receive all types of food), Aparipakwa Dhatu (transformation and

development under progression), Ajata Vyanjanam (incomplete secondary sexual characters), Aklesha Sahatva (cannot tolerate stress of any kind), Asampoorna Balam (poor strength) and Slesma Dhathu Prayam (drastic growth and development).^[6,7]

According to Acharya Charaka, children are delicate, unable to handle hard work, have underdeveloped sexual characteristics, etc. and also having small amount of Doshas, Dhatu and Mala in body.^[8] Babies are naturally Snigdha in nature due to their habit of eating sweet (Madhura), Snigdha foods like milk, ghee, butter, etc., hence unlike adult, in Panchakarma, Snehana is not necessarily required in paediatric instances.^[9] All Panchakarma procedures cannot be employed in paediatric instances as a routine process like in adults; instead, procedures should be carried out when needed, process should be continued in the supervision along with the instructions and precautions. It is very essential to consider the respective conditions such as age, dosage, drugs, mode of administration, time, frequency and procedure while managing Paediatric conditions.

AIMS AND OBJECTIVES:

- To review the literature for the importance of Panchakarma Therapy in Children.
- To elaborate Indication and contraindication of Panchakarma Therapy like Vamana, Virechana, Basti and Nasya etc.

II. MATERIALS AND METHODS

Classical texts of Ayurveda like Kashyap Samhita, Charaka Samhita, and Sushrut Samhita including digital media, Ayush Research Portal, PubMed, Google Scholar and other websites on internet regarding the subjects were used as source material in the study.

Panchakarma Procedure is divided in three parts named as Trividha Karma^[10] i.e., Poorva Karma, Pradhan Karma and Paschata Karma. Under Poorva Karma Deepana- Pachana (digestion), Snehana (oleation) and Swedana (sudation) lies while in Vamana (emesis), Virechana (purgation), Basti (enema), Nasya (nasal medication) & Raktamokshana (bloodletting) are included in Pradhan Karma. After the completion of Pradhan Karma, patient will have to follow post Panchakarma procedures which includes Sansarjana Karma.^[10]

1. **Poorva Karma:** - Prior to the Panchakarma treatment, Deepana and Pachana should be performed. They should be performed in order to achieve Doshas in Niramavastha. Peya, Churna, Kwatha, Kashaya and other formulations are used for this. The process of enhancing Agni is critical in normalising the body's physiology. Normal level of Agni denotes the normalization of Bala, Varna, and Aayu. The importance of Sneha is advocated in Kashyap Samhita Snehaadhyaya. Snehan (Abhyanga with Bala Taila) is recommended in child soon after birth.^[11]

A. **Snehan:** - Snehan is the process of oleation of the body by the use of medicinal oils and ghee both orally and topically. This therapy is particularly crucial for converting Doshas into a soluble condition, which allows for simple evacuation of Doshas from natural orifices. To the children, Snehan Administration, indications, contraindications, and the Sneha Ajeerna and the Samyak Snehan properties are the same as mentioned for Sneha Dravya of Jaangam and Sthavara Yoni. Ghrita, Taila, Vasa, Majja were explained as four main Snehan ingredients, and additional emphasis was placed on Pravicharana Sneha using the same components. Samyak Snehan should be considered when there will be softness in stool, increase in retention power, increase in intellect, digestive fire and lustre and timely functions of the body.^[12]

Indications and contraindications of Snehan^[13]

- a. **Indication:** Hikka (Hiccough), Krishna Balak (Emaciated child), Vatarogas (Hemiplegic, Cerebral palsy), Rukshata (roughness all over the body) and before Pradhan Karma of Panchakarma (bio-cleansing therapy)
 - b. **Contraindication:** Chardi (Vomiting), Atisara (Diarrhoea), Jwara (Fever), Galamaya (Throat disorder), Kaphaja vikara- sthoulya (Obesity), Raktapitta (Bleeding disorders) and Kshirad Avastha (breastfed babies).
- B. **Swedana:** -Swedana is a method that reduces stiffness in the body, removes heaviness, and cures a chilly sensation.^[14] Swedana is performed with the help of Agni or without Agni i.e. Sagni and Niragni. Due to the fragile, delicate, and underdeveloped sweat gland in infants and children, proper attention is needed during the Swedana procedure. Hasta and Pata Sweda are two distinct sudation procedures described by Acharya Kashyap. We can rescue the infant from complications such as burns,

fainting, dark reddish patches on the skin, Trishna, and Jwara by utilising this method.^[15]

Swedana is explained by Acharya Kashyap, of which Nadi Sweda, Prastara, Sankara, Pradeha, Upanaha, Avagaha, Parisheka^[16] are other types that are practically applicable in children with certain modifications moreover Hasta Sweda and Pata Sweda are very useful in neonates and infants, especially in Pain abdomen, Hasta Sweda is given to the infant up to 4 months of age.^[17] The Avasthika sudation is beneficial to the emaciated and medium built children and also indicated in the several diseases like Karshya, Pakshaghata, Pandu, Khanja, cerebral palsy, spastic paralysis, post-polio-myelitis paralysis etc. . Types of Sweda according to Kashyap^[16] :-

- I. Hasta Sweda:- Hand sudation should be used from birth to four months in a wind protected place, hand heated with the smokeless fire.
- II. Pradeha Sweda:- It should be given in Galakarna, head, lateral part of neck, ear, chin and chest region. It is also uses in the indication of Abhisyanda (Swelling of active congestion due to inflammation).
- III. Nadi Sweda:- It is given with help of Vansha, Munja and Naal etc. as per requirement and comfort, in wind protected place having covering with cloth.
- IV. Prastara Sweda:- spreading of Chaff, Payasa or Karsara inside the cloth then child to whom previously Snehan was given, should made to sleep comfortably over it and should be covered with Panchangula or Arka leaves.
- V. Sankara Sweda:- Warm Payasa, Krishara, meat, and hard objects (Shikata, Pransu, and stone) are combined with Kinva, Atasi, curd, and milk to make a lump. On the targeted body parts, it is administered locally.
- VI. Upnaha Sweda:- The afflicted portion should be bound with the heated mixture using a piece of leather or fabric. The ingredients include Kinva, Alasi, curd, milk, Saidhava, Kanji, Kustha, and Tila Taila. It is a form of poultice.
- VII. Avagaha Sweda:- It is recommended to execute this Sweda using warmed Ass, Sheep, Goat, etc. Mansa rasa.
- VIII. Parisheka Sweda:- This type of Sweda is performed by sprinkling of medicated liquid with oil, over the patient.

Indications and contraindications of Swedana Karma^[18]

- a) **Indication:** After Snehan and prior to Panchakarma, Jadya, Kathinya and Ruksha sharira (heaviness, stiffness and dryness of body), Shwas (asthma), Kasa (cough), Pratishtaya, Rheumatic and degenerative conditions and Obstruction to Mala (stool), Mutra (urine) and Sukra (semen).
- b) **Contraindication:** Dagdha (burn), acute fever, kamala (jaundice), Pittarogi, Madhumehi (diabetes), Chardi (vomiting), Trishna (dehydration), Karshya (emaciation), Hridaya Rogas (cardiac diseases), Raktapitta (bleeding disorders) and Vishart (poisons).

2. Pradhan Karma: -

- A. **Vamana (Therapeutic emesis):** Person received proper Snehan, considering digestive power and strength, received proper Swedana, slept overnight and proper digestion of ingested meal, getting up in the morning by itself and cleaned teeth with brush is treated with the procedure of Vamana. This procedure is followed to adults. According to Acharya Kashyap, infant of 4 or 8 months the drugs of emesis should be given with sugar. Emesis should not be given to very young child. According to Vaideha Janaka says that to the very young child 2 or 3 seeds of Apamarga with honey and sugar should be given. According to Vatsya, the disease occur in infants and children are due to the vitiated breast milk given to children.^[19] The reduction of diseases in the child can be done by cleansing of the mother's breast milk, so that the accumulated Doshas in the lactating mother do not get transfer to the child. Various method is mentioned below to induce Vamana in children: -
 - o For Ksheerapa, apply Vamana drugs over breast of the mother and after drying, it should be washed and baby is made to breast feeding which leads to vomiting.
 - o For Ksheerannada, Vamana drugs is given with breast milk.
 - o For Annada, Kwatha is given for intake

Acharya Kashyap prescribed some formulations to induce Vamana in children. Kwatha of Gaurasarshapa, Kritavedhana, Beeja of Madanaphala etc. is used for induce vomiting. Proper cleansing of mother and child brings the healthy state in the child very fast. The child who ejects some breast milk after repeated sucking, never afflicts with Daiva (Divine diseases) and Manushi (disease afflicting human beings). The

Doshas aggravated breast milk given to the child cause stomatitis in children and fever to the mother. In this condition some breast milk should be ejected forcefully and the drug given to the children.^[18] For infant, 2-3 vomitings are usually acceptable.

Vamana Dravya and dosage: (As per Kashyapa)^[18]

- Quantity of Vamana drug is equal to Vidanga Phala (fruit of Embelia ribes) - Kashyapa.
- 2-3 seeds of Apamarga (Achyranthes aspera) along with honey and sugar- Vaideha Janaka
- Others- milk: 750ml, Yashtimadhu Kwatha (decoction of Glycyrrhiza glabra): 750ml, lavanodaka (salted water): 500ml.

Indications and contraindications of Vamana Karma^[20]

- Indications:** Gastric problems- Ajeerna (indigestion), Peenasa (Sinusitis), Madhumeha (diabetes), Unmada (schizophrenia), Kushtha (skin diseases), Kasa (cough), Shwasa (bronchial asthma) and Shlipada (filariasis).
 - Contraindications:** Acute peptic ulcer, Bala (young children), Hridroga (cardiac disorders), Shranta (exhaustion), Pipasita (thirst), Kshudhita (hunger) and Atikrisha (emaciation).
- B. Virechana:** - Virechana is one of the Panchakarma procedure where vitiated Doshas (mainly Pitta) are removed from Adhobhaga (anal route).^[21] Precaution should be followed as there lies a potent danger of dehydration which the children are highly prone too. For Ksheerada Virechana Aushadha should be given to mother. In Ksheerannada and Annada Anulomana drugs like; Haritaki, Triphala, Trivruta, Aragwadha Phalamajja etc. Mridu Virechak Aushadha like Trivruta and Chaturangula are logically used in children.

Basti Matra in children: -^[27]

Table No-1 depicting Matra for Sneha Basti & Niruha Basti in Children

Age(years)	Sneha Basti Matra	Niruha Basti Matra
1-3	3 Karsha (30 ml)	9 Karsha (90 ml)
4	1 Pal (40 ml)	3 Pal (120 ml)
6	1 Prasrita (80 ml)	3 Prasrita (240 ml)
12	2 Prasrita (160 ml)	6 Prasrita (480 ml)
>16	4 Prasrita (320 ml)	12 Prasrita (960 ml)

The Vega of Virechana in children is 10,15 and 30 as Avar, Madhyam and Uttama respectively.^[22]

Indications and contraindications of Virechana Karma:^[23]

- Indication:** Tamak shwasa (bronchial asthma), eczema, allergic dermatitis, Pakshaghat (hemiplegia), Madhumeha (diabetes), Arbuda (tumour), Krimi (worm infestation), Kamala (jaundice).
 - Contraindication:** Navajwara (acute fevers), Krisha (emaciation), Rajayakshma (tuberculosis) and Garbhini (pregnant lady).
- C. Basti:** - Panchakarma procedure, in which the drug is administered to the patient through genito-urinary route in infant and other than the infantile period (till 16 years). It balances Vat Dosh and considered as Amrit. It has multi-dimensional action and treatment choice for Vata hence it is known as 'Ardha Chikitsa'.^[24,25] Acharya Kashyapa told the Anuvasana Basti or Basti in which oil more than quantity of Kashaya should be used. Gargya, Mathara, Atreya, Parashara and Bhela have stated that Basti should be started just after birth, after 1 month, after 4 month, after 3 year, and 6th year respectively. Kashyap has stated that Basti should be started at Annada (about 1 years of age).^[26] There are three type of Basti – Anuvasana, Aasthapana and Uttar Basti. Matra Basti is given to children at any point without complication. Aasthapana Basti given after 1 year. Anuvasana Basti is given with Aasthapana Basti. Uttar Basti is Aprayojya (unusable). Common Basti Yoga are Madhutailika Basti, Bala Guduchyadi Basti, Patolnimbadi Basti, Vaitarana Basti, Mustadi Yapana Basti, Tikta Kshira Basti

Acharya Kashyapa also mentioned the term ‘Chaturbhada Basti’,^[28] in which 4 Anuvasana, 4 Niruha and 4 Anuvasana is given. It is the total sum of 12 Basti. This type of Basti should be administered on the alternate day. Different type of Basti should be used sometimes. Herbs which contain Jivaniya and Mridu properties should be utilised more frequently. Matra should be 1/6th or 1/4th of Anuvasana Basti.

Indication and contraindication of Basti:-^[29]

- a) **Indication:** Amavatta (juvenile rheumatoid arthritis), Vata rog (hemiplegia, muscular dystrophy), Rajonash (secondary amenorrhea), Jeerna Jwara (chronic fever), Ashmari (kidney stone, bladder stone), Niram Atisara (chronic diarrhoea), cerebral palsy, delayed milestones etc.
- b) **Contraindication:** Aamatisara (diarrhoea), Kasa (cough), Shwasa (asthma), Chhardi (vomiting), Krisha (emaciation), Madhumeha (diabetes), Shoona Payu (inflamed anus) and Kritahara (immediately after taking food)
- D. **Nasya:** - Nasya refers to the administration of Sneha through the nostrils. It is a therapy option for conditions above the Greeva region. Kashyapa also advices the Nasya for both child as well as the mother. Kashyapa told Nasya is of two types: Shodhan and Purana are two varieties of the Nasya.^[30] while Acharya Vagbhatta described three type of Nasya viz-

Virechana, Brihana and Shamana.^[31] The indication of Nasya is 8 to 80 year. Katu Taila Nasya has been explained for children along with Madhu and Gomutra by making the baby sit on the lap of mother.^[32] If the situation demands Nasya should be given forcefully if the child is reluctant. Nasya cures certain childhood disorders like Trishna, Shiro Roga, Pippasa etc. Kumāra Taila Nasya is specially indicated for child which is best for eradication of the disease.^[32] Child which is on breast milk should receive the Nasya Karma especially the Katu tail, Purana Ghrita and honey. Mild massage and squeezing of the nasal area should be done by digital pressure till the complete disappearance of the disease.

- E. **Raktamokshana:** - Raktamokshana is the process in which the blood is ejected from the body, when the patient is having Rakta and Pitta disorders. As the Acharya Charak states that Children have Aparipakva Dhatu,^[6,7] so the children are not indicated to Raktamokshana, firstly the disease is to be cured with the Sanshaman Aushadha. If the disease is not cured with Sanshaman Aushadha then Raktamokshana is indicated. Certain disease like Kukunaka, Ahiputana, Gudakutta, Ajagallika, Mukhapaka, Charmadala. The Jaulaka is the mildest of all the methods therefore Jalauka is the only mean for Raktavasechana in paediatrics cases.^[33]

3. **Paschata Karma** - Under this description of Samsarjana^[34] is given below in table no-2.

Table No-2 depicting day wise Samsarjana Karma in Children

Day	Samsarjana ^[34]
1	Manda Pradhan Yavagu Prepared from Old Rakta Shali Rice and processed with Deepaniويا Drvaya and Lavana
2	Yavagu Panam
3	Deepaniya, Ruksha, Ushna, Saindhav Siddha Vilepi
4	Mudga Manda Sadhita Odana.
5	Phalamla added Mudga Manda
6,7	Sneha yukta Mudga Manda
8	Mamsa Rasa of Jangal origin
9	Sneha yukta Mamsa Rasa of Jangal origin
10	Sneha, Lavana Amla yukta Mamsa Rasa and Odana. Note - In Vata Kapha Dominant Roga Anupan is Usna Udaka.

OTHER PROCEDURES

Shirodhara: - The Shirodhara is the application of a liquid to the scalp or forehead. It is a well-established Ayurvedic therapy that dates back thousands of years and is administered using a variety of medications, including Taila, Takra, Kshira, Kwatha, and others. Ghee or medicated tail would be referred to as "Taila Dhara." This Taila

Dhara is one of the Murdha Taila ^[35] kinds, along with Abhyanga, Seka, Pichu, and Basti. It is spoken to them, "Uttarottar Gunaprada." Shirodhara, then, is a kind of Murdhataila in which a certain amount of appropriately medicated oil is applied to the forehead and then permitted to cascade down the scalp from a certain height ^[36].

Table No-3 depicting indications & contraindication of Shirodhara

Indication	Contraindication
Shiroroga,	Kaphaja Vikaras
Unmad	Patient undergo Panchakarma
Anidra,	Ajeerna
Manoavsad,	
Chittaudvega,	
Apasmara	

It is one kind of Murdha Tail that is frequently utilised in Panchakarma treatment is Shirodhara. Shirodhara is synonymous with Dhara, Parisek, and Paricsechan. Chronic headache, insomnia, senile dementia, parkinson's disease, motor neuron disease, residual schizophrenia, anxiety disorder, depressive illness, fibromyalgia syndrome, skin disorders, and generalised cerebral atrophy are among the conditions for which it is indicated.^[37]

Scientific evidences regarding Bal Panchakarma in various disease of children:

- 1) 163 patients of CP* of age 2-10 years were first subjected to Abhyanga (massage) with Moorchita Tila Taila (processed sesame oil) and Svedana (fomentation) with SSPS and then, were divided in two groups. Group A received Mustadi Rajayapana Basti (enema with herbal decoction) and Baladi Yoga (a poly- herbo- mineral formulation), while Group B (placebo group) received Godhuma Vati (tablet prepared with wheat powder) and saline water as enema ^[38]. Mustadi Rajayapana Basti and Baladi Yoga showed improvement in the daily life activities by 8.79%, gross motor functions by 19.76%, and fine motor functions 15.05%, and mental functions like memory retention got improved by 15.43%. The placebo group showed an improvement of 0.21% in daily life activities, 2.8% in gross motor, and 2.4% in fine motor functions. Mustadi Rajayapana Basti and Baladi Yoga proved to be more effective.
- 2) b. 20 patients of CP* aged 2-8 years were randomly distributed into 2 Groups (n=10).

Treatment given was Group A: Brimhan procedures (Talapothishil/ Shiropichu, Annalepan, Pindswed, Tailadhara and Matra Basti) for 3 days followed by Rukshan procedures (Talapothishil/ Shirolepan, Udgharshan, Kwathdhara, Patrapottali and Niruh Basti) for next 3 days, alternate 5 cycles starting and ending with Brimhan for 3 consecutive months. Group B: Brimhan procedures for the same pattern and duration. Physiotherapy and occupational therapy were given to both groups ^[39]. Group A showed more improvement (21%) than Group B (19%) in all parameters like gross motor, fine motor, language/speech, and personal social (Barthel index). Spasticity, convulsions were reduced and quality of life was increased in both the groups.

- 3) 8 patients of CP* were treated with 5 days of Udvartana, 5 days of Abhyanga followed by Sarvanga Swedana and then 8 days of Yoga Basti. This treatment was repeated 3 times with an interval of 14 days. Ashtanga Ghrita was given orally. Results were assessed with anthropometrical measurement, developmental milestone, Modified Ashworth Scale, spasm scale, reflex scale, and muscle power grading ^[40]. This Ayurvedic management shows good result in CP patients, especially by improving growth (height, weight, chest circumference) and development (head holding and sitting), reducing spasticity of left upper limb and musclespasm.
- 4) A four years child of Bell's palsy with deviation of mouth on left side for one day while attempt to speak and smile and partially

- opening right eye while sleeping and excessive lacrimation of right eye was given Shiro abhyanga and Pichu dharana with Ksheerabala taila, Pata sweda and Navana Nasya with Anu taila for 7 days. Patient was also given Brihat Vata Chintamani and Dashmoolarishta for 2 weeks^[41]. Tremendous recovery was observed in the first one week with minimal residual weakness. Full recovery was observed after 2 weeks.
- 5) A ten-year-old child of Ardita (Bell's palsy with Grade 6) was given Nasya with Ksheerabala, Panasa patra sweda, Akshitarpana with Vidaryadi Ghrita, Gandusha with Tila taila and physiotherapy for 7 days^[42]. After treatment, improvement in muscle power was seen. The total score of the Barthel index before the study was 70 and after the study was 95, which shows improvement in activity of daily life. Serum creatine phosphokinase and serum creatine kinase- MB values were insignificantly improved before and after treatment.
 - 6) A six and half year-old child with Congenital Muscular Dystrophy was given internal medications with Panchakarma therapy. Bilwadi gutika, Ashwagandha churna, Pippali churna, Pravala bhasma, and Shirisharishta were prescribed along with Panchakarma procedures (five therapeutic procedures) including Udwartana (therapeutic massage using powders), Sarvanga abhyanga (whole body oil massage), Swedana (sudation therapy), Niruha basti (therapeutic decoction enema), and Anuvasana basti (therapeutic unctuous enema)^[43]. After treatment, improvement in muscle power was seen. Which shows improvement in activity of daily life. Serum creatine phosphokinase and serum creatine kinase- MB values were insignificantly improved before and after the treatment.
 - 7) A four year-child of Duchenne Muscular Dystrophy was given three sittings of Panchakarma procedures at 20 days interval: Aama Pachana with Panchkola Choorna for 3 days, Udwartana with Yavkulatha Choorna for 7 days, Abhyanga with Ksheerabala Taila for 7 days, Swedan with Shastishali Shali rice with cow milk for 7 days and Mamsa rasa basti for 7 days^[44]. The therapy resulted in decrease in serum CPK level, decrease in frequency of falls and decrease in pseudohypertrophy of calf muscles. Power increased in both upper and lower limbs.
 - 8) Thirteen-year-old male child of Juvenile idiopathic arthritis was given oral medicines along with Sarvanga Snehana (oleation - whole body massage) with Vishagarbha Taila, Sarvanga Swedana (sudation - whole body steam) Nadi Sweda method and Vaitarana Basti (type of medicated enema) for 10 days after Deepan and Pachan^[45]. Improvement was seen in severity of pain, tenderness, swelling, grip strength (Lt & Rt hand) and functional score.
 - 9) Clinical Study of An Ayurvedic Compound & Shirodhara in the Management of Attention Deficit / Hyperactivity Disorder (AD/HD) Affected Children: Selected patients were randomly divided into three groups keeping in mind that all the three groups had children from various grades, schools & socioeconomic status. • Group A - This group of 17 children was given Syrup Ay compound 1 • Group B - This group of 14 children were given Syrup Ay compound 1 + Shirodhara • Group C - This group of 12 children were given Placebo syrup Ay compound 2 (Placebo). Both drug and drug along with Shirodhara were effective in alleviating the symptoms of AD/HD, but drug combined with Shirodhara had much greater potential to ameliorate the symptoms of ADHD rather than the drug or placebo alone.^[46]
 - 10) Five-year-old male child with the complaints of hyperactivity, no communication skill, less eye contact and decreased speech was diagnosed with autism and treated with oleation therapy with Ksheerabala Tailam for 10 days, Shastika Shali Pinda Sweda for 10 days, Nasya with Ksheerabala Tailam, for 10 days, medicated enema with Bhramighrita, 30 days along with Brahmi vati and Brihatvatachintamani rasa^[47] Child became calm, hyperactivity subsided. Improved eye contact started to communicate with mother and brother using few sentences.
 - 11) A comparative study was conducted on syrup Trayodashanga Kashaya and syrup Vyaghradi Kashaya along with Anu Taila Nasya in the management of Vataj Pratishyaya w.s.r. to allergic rhinitis. Eighty-two children suffering from Vataj Pratishyaya were randomly selected and divided into four groups, namely Group A was treated with Compound A (syrup Trayodashanga Kashaya), Group B was treated with Compound A (syrup Trayodashanga Kashaya) and Anu Taila Nasya, Group C were

treated with Compound A-1 (syrup Vyaghradi Kashaya), while Group D was treated with Compound A-1 (syrup Vyaghradi Kashaya) and Anu Taila Nasya. A total of 60 children completed the treatment, 15 in each group. Group B showed extremely significant results in relieving signs and symptoms of Vataj Pratishyaya in comparison to Group A, C, and D.^[48]

- 12) A four-year-old boy of chronic constipation due to hirschprung disease was given SSPS and Matra Basti with Ashwagandha Taila for 15 days. Thereafter, it was repeated 6 times with a gap of 15 days. Therapy was found effective as assessed by eight scales based medical outcome study (MOS) e 36 item short form^[49]

III. DISCUSSION: -

Children are having Dosh, Dushya and Mala, similar to adult but present in small quantity. As the children is considered to be the vulnerable among the human, so the treatment which can be done on adult, cannot be done in same manner in the children. Precautions and preventions should be kept in mind before starting the treatment of children. Panchakarma is the series of procedures, which is nowadays necessary part of the treatment along with the medications. Panchakarma can be very carefully implemented in Swatantra Bala (healthy child) or in an independent child by factors that keeping in mind like Bala, Desh, Kala, etc Swatantra child refers to that child who does not require any assistance in there day to day life activities like eating, talking, walking and explaining good and bad suffering during the course of treatment while Pratantra bala is one who is dependent on his parents or caretakers for his day-to-day activities. In children, some unique and special characteristic found, which are mentioned above in the article like Soukumaryata (having soft and tender body structure), Alpakayata (under developed organ systems), Vividha Anna Anupasevanata (GIT not fit to receive all types of food), Aparipakwa Dhatu (transformation and development under progression), Aklesha Sahatva (cannot tolerate stress of any kind), Asampoorna Balam (poor strength). These characteristics are the reason behind the fixation of dose and duration of the therapy. Various researches established that the Panchakarma therapy can be done in specific conditions and contraindicated in many other conditions. The drug which can be used in Panchakarma procedure contains Mridu Sheeta and

Surbhi properties in them. Some Panchakarma therapy like Raktamokshana and Virechana are rarely advocated in children unless the emergency condition. Snehan is done in children to regulate Vata, regularise the bowel movements and gives a lustrous look to the skin. Swedan can be done in majority of Vata and Kapha disorders. It is used to reduce stiffness of various joints especially in case of contracture formed in various diseases like cerebral palsy, infantile hemiplegia, muscular dystrophy etc. Pratimarsh Nasya is the safe and effective type of Nasya which can be advocated in all children since birth. Till today there no complications of Pratimarsha Nasya. Matra Basti is the one of the types of Sneha Basti which can be given anytime in various pediatric disease. It acts singly as well as provide vehicle for many drugs too.

Based on some scientific researches and case studies, common paediatric disorders like autism, cerebral palsy, bell's palsy, muscular dystrophy, attention deficit hyperactivity disorder, sinusitis, rhinitis, etc., Panchakarma procedures are found very useful not only alleviating the clinical features of disease but also to eliminate the aggravated Doshas. Sudation, or Swedish karma, clears blockages in the body's pathways (Srotas). Hence, it relieves joint range of motion and muscular stiffness. Milk processed with Dashamula Kwatha and cooked Rakta Shati Sali (Oryza Sativa grains) are used to make Shashtika Shali Pinda Sweda. It possesses pacifying qualities for Tridosha. Because of its Brihnhana effect, it makes muscles stronger and bigger. Therefore, it is helpful in both cerebral palsy and malnourished situations. Various researches showed that Basti are frequently advocated in children while Vaman and Virechan Karma are employed less frequently. Bell's palsy, CP, and other disorders with a predominance of Vata can be significantly relieved by medicated oil enema as it balances the Vata Dosh. Short-chain fatty acids found in medicinal oil are thought to diffuse straight from the colon and rectum's epithelial cells into blood capillaries. Oils such as Ksheerbala Taila, Mahanaryana Taila, Mahamasha Taila etc used in Basti nourishes the dhatu of developing children and thus helpful to improve fine and gross motor skills too. It is also helpful to remove stool from colon in severely constipated children.

IV. CONCLUSION

It is proved from the various researches as mentioned above that Panchakarma procedures are

beneficial to manage various diseases in children. But these procedure should be employed in paediatric population as per their indication as mentioned in Ayurveda Classics and in gentle nature under the observation of a competent Ayurveda Paediatrician so that complete benefit of these procedures can be obtained in children.

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