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(An autonomous institution under the Ministry of AYUSH, Govt. of India)
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PANCHAKARMA FOR CHILDREN IN CLINICAL AND OUTPATIENT PRACTICE

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Outline:

- Introduction to Panchakarma
- Procedure list
- Understanding each procedure under *Purvakarma*, *Pradhana Karma* and *Paschat Karma* in brief.
- 8 types of *Swedana* in children
- Importance of *Paschat Karma*
- Research Studies on different procedures
 - Mental Retardation
 - CP
- Conclusions

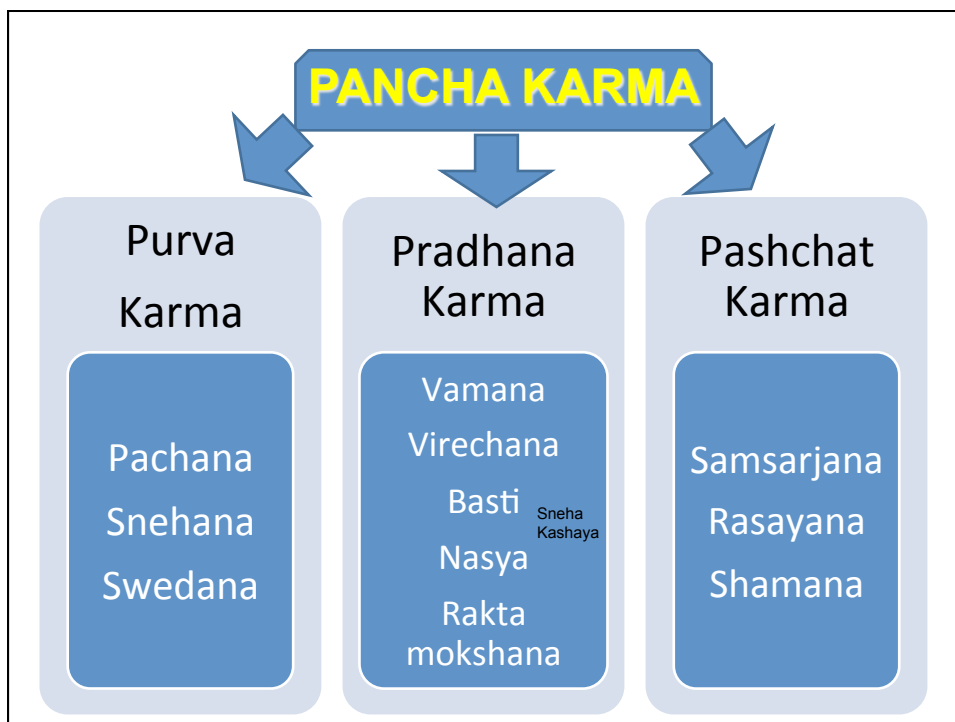
Introduction:

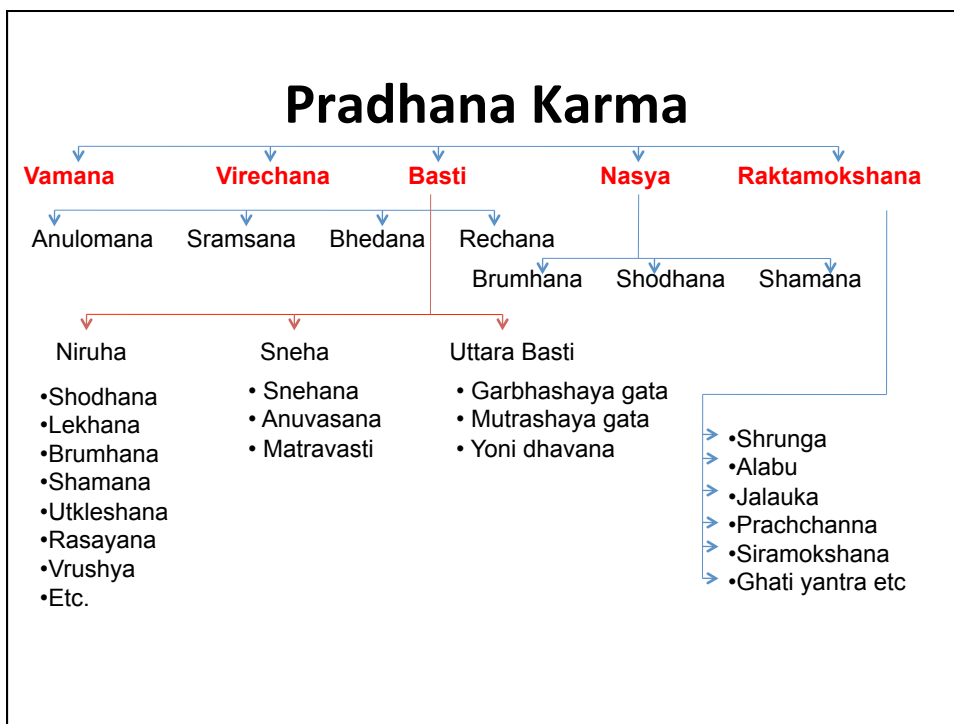
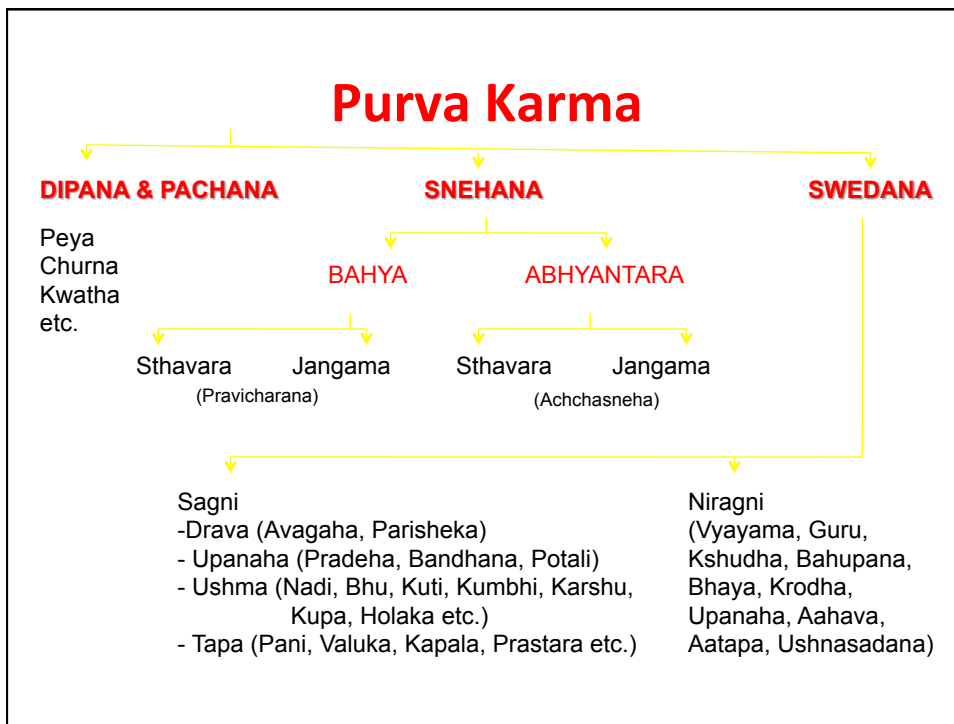
- ▶ Ayurveda is the first medical science in the world to have 8 clinical specialties.
- ▶ Kaumarabhritya - pediatrics is one among it.
- ▶ Kashyapa Samhita [1500 yrs. BC (?)] - the oldest authentic text on the subject.
- ▶ Panchakarma - a well known broad subject, having preventive, curative as well as rejuvenative effects & well recognized by Kashyapa also!

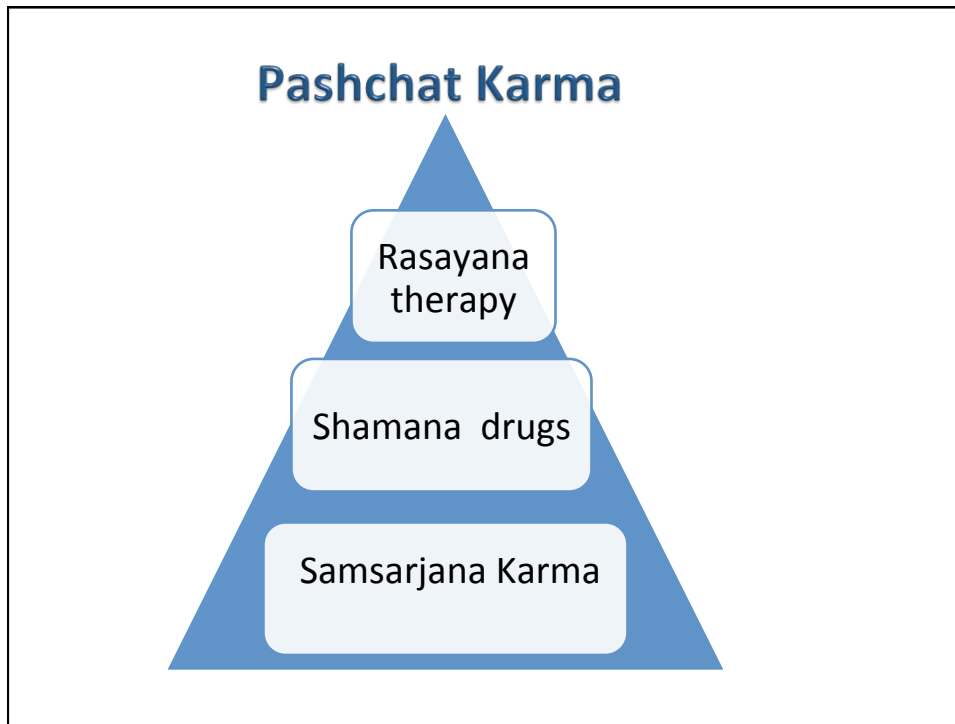
Introduction

- Panchakarma is unique set of procedures beneficial in the elimination of vitiated Doshas- biological functional units of the body, due to the improper diet and regimens or seasonal & environmental changes.
- These therapies are equally helpful in the rejuvenation, prevention and cure of the diseases.
- Panchakarma comes under Shodhana chikitsa and is essentially a Apatarpana therapy.
- Shodhana is considered to be superior than Shamana.

- Proper administration of Panchakarma therapies in time help to increase the digestive power, so helps in the proper nourishment of the tissues and delays old age symptoms.
- It improves the physical and mental health and thus helps to lead long and happy life.
- To get the excellence of the tissues one should take the Rasayana therapies and the benefits of this therapy is possible only after following the Shodhana therapies
- Rasayana therapy is indicated for children and middle aged persons for these benefits.







Procedures list

Purva Karma:

1. Deepana – Pachana

Snehana

1. Abhyantara snehana
2. Achchhapeya sneha
3. Virechana sneha
4. Sadyah sneha
5. Bahya snehana
6. Murdha taila
7. Shiro abhyanga
8. Shiroseka
9. Shiropichu
10. Shirobasti
11. Sharirabhyanga
12. Padabhyanga
13. Akshitarpana
14. Karnapurana
15. Nasatarpana
16. Gandusha
17. Kavala
18. Udvertana

19. Mardana

20. Lepa

21. Padaghata

22. Snehavagaha

23. Parisheka

Swedana

1. SSPS
2. Valuka sveda
3. Patrapinda sveda
4. Nadi sveda
5. Bashpa sveda
6. Upanaha sveda
7. Pariseka sveda
8. Avagaha sveda
9. Kati basti
10. Griva basti
11. Janu basti
12. Uro basti
13. Annalepana
14. Samvahana
15. Taladharana
16. Dhumapana

17. Mukhalepa

18. Netra prasadana

Pradhana karma

Vamana karma

Virechana karma

Basti karma

1. Niruha basti
2. Anuvasana basti
3. Uttara basti

Nasya karma

Rakta mokshana

1. Siravyadha
2. Jalaukavacharana
3. Prachchanna
4. Shringavacharana
5. Alabu avacharana
6. Ghatyantra avacharana

Other procedures

1. Dhara : Takra /
Ksheera / Taila / jala
dhara
2. Tala podichchil
3. Anna lepana

What makes a Child different from an Adult?

- The difference lies in the fixation of dose and duration of therapy/ procedures which should be smaller/ shorter in pediatric group because tender body, small in size and their diet is also not complete like adult.

Physical conditions of a child

- ❖ **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 dhathu** - transformation and development under progression
- ❖ **Ajata vyanjanam** - incomplete secondary sexual characters
- ❖ **Aklesha sahatva** - cannot tolerate stress of any kind
- ❖ **Asampoorna balam** - **Bala** is the measure of strength and the essence of all tissues based on immunity children have poor immunity
- ❖ **Slesma dhathu prayam** - indicates the drastic growth and development

Quality of medicines in children ?

- **Mrudu** - potency should be controlled
- **Madhura** and **Surabhi** - sweet and good odour for better palatability
- **Laghu** - easy to absorb and assimilate
- **Sharkara Kalpa - Syrups** - panacea
- **Samsamana karma** - for not affecting Dhathu
- **Kapha medohara** - generally, diseases in children are Santharpanajanya
- **Hetuvipareeta** - Vyadhi vipareeta oushadhas are poorly tolerated by children

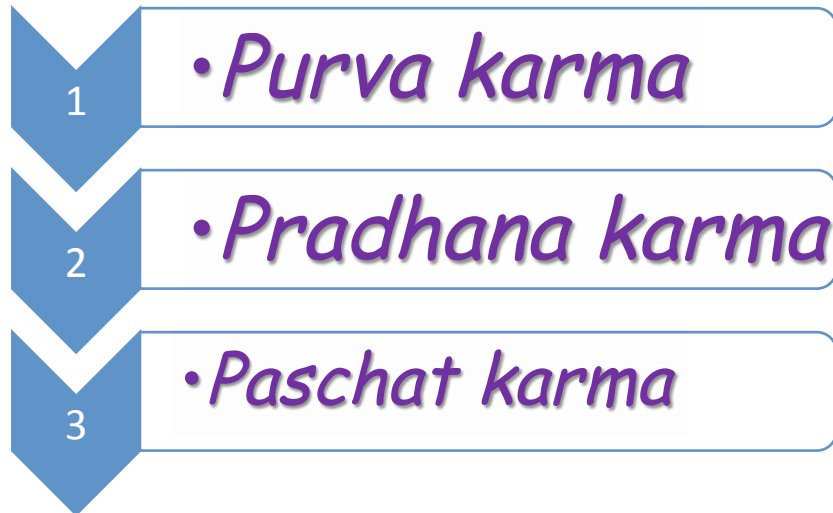
Shodhana Chikitsa

- Eliminates the vitiated Dosha
- Corrects the functions of Dhatu
- Fails to correct the structural deformity of the Dhatus as it acts only in the Dosha level

<i>Shamana</i>	<i>Shodhana</i>
Pacifies <i>Dosha</i> locally	Removes <i>Dosha</i> from the body
Comparatively of temporary in action, done in <i>Alpa Dosha</i> and <i>Alpa Bala</i>	Effect lasts for long, done in <i>Prabhuta dosha</i> and <i>Pravara Bala</i>
Does not interfere with <i>Dhatu</i>	Normalizes <i>Dhatu</i> functions

- Many Panchakarma procedures due to their drastic nature are not readily advisable in children as they are immature, delicate and intolerable to drastic procedures and lack optimum level of Deha Dhatus.
- Though they have doshas, dushyas, diseases everything similar to that of adults, it is very essential to reschedule the **dosage, drugs, mode of administration, time and frequency** according to respective conditions and age.
- Hence the medication mentioned for the adults can be made use of in children but in a **smaller dosage** to reduce its *Teekshnata* to compensate the delicacy, small size of the body and modified dietetic habits.
- These factors make it necessary to bring about modifications in procedures especially the Panchakarma in children.

Schedule of Panchakarma



Poorva karma

- *Deepana & Pachana* - Digestives & Appetizers
- *Snehana* - Oleation
- *Swedana* - Sudation

Udvartana: {Udgharshana / Utsadana}

- *Rukshana* is brought about by this procedure mainly at the level of superficial *Dhatu*s especially at the level of *Rasa* (skin), *Rakta* (blood), *Mamsa* (muscle) & *Medas* .
- It is done by rubbing the body externally with powders of medicines.
- This can be planned according to the need and nature of the patient.
- *Udavartana* procedure enhances circulation at cellular level and transportation of fluids and nutrients.
- In an obese child with a *Kapha* predominance *Udavartana* and *Udgharshana* may be done.
- If the child is emaciated & needs *Brimhana*, *Utsadana* may be done that provides less *Rukshana*.

Poorva karma

❖ ***Snehana - Oleation***

- ❖ *Sadya sneha* alone is advised - that too with *Ghrita*.
- ❖ *Sneha* can be selected according to condition of the child, but usually *Sneha* medicated with *Mrudu dravyas* alone are selected.

Snehana Therapy

- It is a procedure through which required quantity of Snigdhatā is brought out in a person with Sneha dravyas used in varying quantity (higher, middle, lower), different modes of administration (*Achchhapana* - absolute *Sneha*, *Vicharana* - any food item mix with *Sneha*) or through different routes (oral, anal, nasal, topical etc).
- The type of *Snehapana* is decided considering the factors like Agni, age of the person, acceptability to the mode and dose of *Sneha* given and of course the disease condition.
- *Achchhapana* is considered to be most beneficial, in younger children *Vicharana Snehapana* is resorted to.

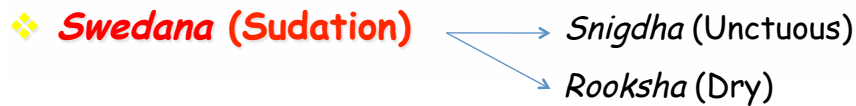
- There is no need for *Achchhapana* to the children because their body is always *Snigdha* due to regular intake of Ghee and milk.
- Hence, in *Ksheerada* and *Ksheerannada* period only milk intake in sufficient quantity is enough for oleation.
- In case of *Annada* children *Vicharana Sneha* is helpful for oleation.
- *Sadya Sneha*- Vegetable soup, meat soup, cereal soup mixed with *sneha*.
- *Sneha* is essential for children as it aids in growth and development.
- Hence it is not only used as a prerequisite for the *Shodhana* but also alleviate the specific disease conditions (*Shamana Sneha*) and also to boost the health of a person in convalescence period or in a healthy individual (*Brimhana Sneha*).

- The regular external application of oil to the children helps in good sleep, acquiring the strength, proper growth of the body and development also relieves tiredness sprinkling Bala taila immediately after birth is one of the procedures of resuscitation of the baby.

Importance of *Ghrita* in children

- ❖ There is similarity between *Ghrita* and brain matter
- ❖ Only fat and alcohol soluble materials can cross the blood brain barrier
- ❖ *Ghrita* is the best medium to nourish brain
- ❖ It is reported that *Ghrita* of Native Cow Breed (A2 milk) is rich in cerebrocides, much essential for brain activity.
- ❖ Majority of the preparations indicated for brain related problems in children are in *Ghrita* form.

Poorva karma



- This is a procedure that relieves the rigidity, heaviness, cold and brings about sweating.
- *Swedana* being one of the strong procedures, produces complications similar to *Atiyoga lashana* in children [as they are considered to be *Sukumara*, *Daurbalya* and *Teekshna Upachara varjya*], hence it is necessary to modify the procedure in children.

"Ashta vidha sweda" are indicated for children

Indications in children

- The children suffering from rigidity, hardness, constipation, suppression of voice, nausea, anorexia, tympanitis, unable to bear cold, cramps.
- Advocated in diseases - *Karshya*, *Pakshaghata*, *Pangu*, *Khanja*, C.P., Spastic Paralysis, Post Polio-myelitic Paralysis etc.

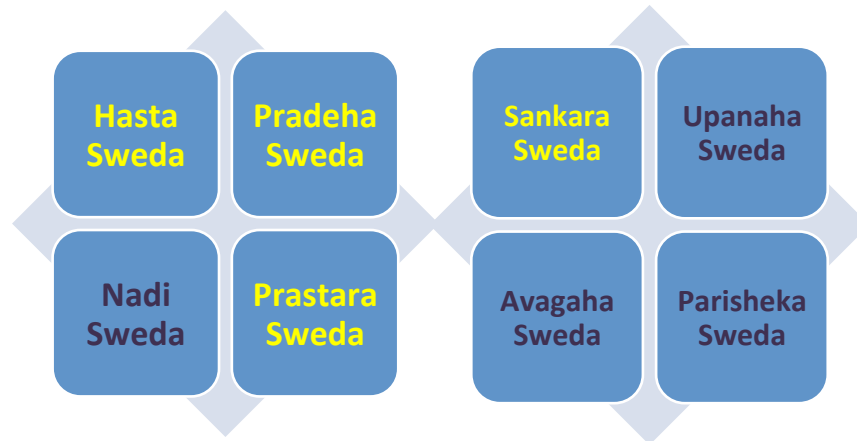
Factors to be considered for *Swedana*

- Age
- Physical condition of child.
- Season
- Nature of the disease
- Body parts

Nature of Sudation according to body parts

Types of Sudation	Body parts
<i>Mridu</i> (Mild)	Testicle, cardiac region & eyes
<i>Madhya</i> (Moderate)	Genitals, groin region and joints
Mild, moderate and strong (according to need)	All other body parts

"Ashta vidha sweda" - Kashyapa



Hasta Sveda:

- It is performed by applying warm hand of physician or attendant, over desired part of body.
- The hand should warmed in smokeless flame.
- It is applicable in infants up to the age of four month.

Pradeha Sveda:

- ▶ Luke-warm paste prepared with *Eranda*, bark & leaf of *Shigru*, cow's urine, *Kinva* & *Saidhava* is applied over affected area.
- ▶ It is changed frequently as the previous one becomes cold.
- ▶ Application of cow dung may also be done for same purpose.
- ▶ It is effective in inflammatory conditions of throat, head, back or nape of the neck, ear, eyes, chin and chest.

Nadi Sveda:

- This type of *Sveda* is applied with *Vamsha*, *Munja* or *Nala* after covering the desired area with cloths.

Prastara Sveda:

- ▶ Warmed *Pulaka* (*Kshudra Dhanya*) of *Tusha*, *Payasa*, leaves of *Eranda* and *Arka*.
- ▶ After giving proper massage, the child is placed over the layer of above paste, properly covered with cloths.
- ▶ Warmed paste of medicine should be changed frequently, as desired.

Shankara Sveda:

- A lump is prepared with warmed *Payasa*, *Krishara*, meat, hard articles (*Shikata*, *Pransu* and stone) with *Kinva*, *Alasi*, curd and milk.
- It is applied locally on desired body parts.

Upanaha Sveda:

- ▶ The warm mixture should bind with a piece of cloth or leather, on affected part.
- ▶ It is a type of poultice, prepared with *Kinva*, *Alasi*, curd, milk, *Saidhava*, sour article (*Kanji*), *Kustha* and sesimum oil.

Avagaha Sweda:

- It is a *Drava Sweda*.
- This *Sweda* should be performed with the warmed *Mamsa rasa* of Ass, Sheep, Goat, etc.

Parisheka Sweda:

- ▶ This *Sweda* should be performed by sprinkle medicated liquid with oil, over the patient.

Purva Karma

- Commonly practiced in Paediatric Age:
 - Abhyanga
 - Shirobhyanga
 - Shiropichu
 - Nadi Sweda
 - Pradeha / Prastara Sweda
 - Pinda Sweda
 - Avagaha Sweda
 - Parisheka Sweda

Vamana**Pradhana Karma**

Vamana (Emesis)- *Vamana* is the process by which *Doshas* are eliminated through mouth by the act of Vomiting.

It is the best treatment for *Kapha* disorders.

In human life, the first act of emesis is performed immediately after birth, for elimination of *Garbhodaka*, the mixture of *Ghritha* and *Saindhava* (Rock salt) for this purpose.

Kashyapa has prescribed to use few recipes to induce emesis, applicable especially in children.

- Decoction of *Gaurasarshapa*, *Kritavedha*, seed of *Madanaphala* etc. are used for the *Vamana*.

- The decoction should be neither too hot nor too cold.

- The emetics should be administered to children, in morning, after cleaning the mouth.

Now a days *Vamana* is done only in three conditions -
Chronic Skin diseases, Bronchial Asthma, Psychological disorders

- The whole childhood is of *Kapha* dominant period and children are suffering from more *Kaphaja* disorders. Hence, *Vamana* is the best *Shodhana* therapy in all the disorders of the children.
- By observing the dependency in childhood period the therapy should be milder one which should not give rise to any complications.
- According to Sushruta, milk, curd or butter milk or any *Yavagu* (rice -gruel) should be administered satiated up to the throat for induction of emesis.

- Kashyapa was of the opinion that if the children are vomiting frequently with out any reason it show that they are growing well and not suffering from any type of disorders.
- According to Kashyapa, *Vamana* therapy can be started to the children from the age of 6 years. He told that it is better to use the mild potency of the drugs in smaller quantity.

Scholar	Appropriate age	Comments
Kautsya	6 year and onwards	Suffer from eye disorders
Kashyapa	6 - 8 year	Vaman drugs use with sugar
Janaka	Infants	2 - 3 seed of <i>Apamarga</i>

- ***Ksheerada***- Apply *Vamana* drugs over the breast of the mother and after it dries up it should be washed and baby is made to breast feed which lead to easy *Vamana*.
- ***Ksheerannada*** - administer of *Vamana* drugs along with breast milk.
- ***Annada***- the decoction of Madanaphala, Vacha and *Saidhava* or *Katphala* and *Sarsapa* etc.
- The dosage of drugs for *Vamana* is depending upon the severity of the disease from 120 mg to 4 gm. For older children up to 10 gm of medicine can be administered.

- Vomiting is induced by physician or by mother by tickling the throat of the child by his fingers.
- Normally, 2-3 vomiting are appropriate for children.

Virechana

Virechana (Purgation) is the process by which, vitiated *Doshas* are eliminated from *Adhomarga* (rectum). It is the best treatment for *Pitta* disorders.

- *Ksheerada - Virechana Aushadha* to mother
 - *Ksheerannada* and *Annada - Anulomana* drugs like
 -
 - *Hareetaki, Triphala, Trivrit,*
 - *Aragwadha Phala Majja*
 - *Eranda taila* with *Ksheera* are preferred
- Teekshna drugs are not advised.**

Virechana Therapy

- As far as possible *Virechana* therapy should not be advised to children.
- Vagbhata has told that the disease curable by *Virechana* therapy can be controlled by *Basti* in case of children.
- If strong indication of *Virechana* is there then mild dose can be administered by noting the severity especially in *Pittaja* disorders.

- Drug like Caster oil, *Aragwadha*, *Draksha*, *Triphala* etc. mild purgatives can be used.
- *Kampillaka* is good for the expulsion and eradication of *Krimis* from intestinal tract.
- In case of *Phakkaroga*, Kashyapa has indicated Virechana therapy by *Thivrit Ksheera*.
- *Sukha Virechana* from the age of 4 years up to the 12 years - Vagbhata.

VASTI / BASTI

Vasti (therapeutic enema) is the process in which the medicine (oil,, decoction and other adjuvant) is introduced though the anus or urethra or vagina.

Vasti

- Most important among the Panchakarma
- Has multi-dimensional action
- Conquers Vata in its vital seat
- Treatment of choice for Vata
- Vasti mitigates Vata, thus considered as half of the whole treatment.

Three-fold utility of Vasti

- *Uthkleshana* - Excitation of Dosha
- *Suddheekarana* - Purification
- *Shamana* - Pacification

“ Vasti can be administered in a child with care ”

“ No to -Uttara vasti”

Vasti (therapeutic Enema)

- Vasti can be indicated in all children and especially those who are contraindicated for *Virechana* can be given *Asthapana vasti* and that brings about quickly the similar effects of *Virechana* including strength, complexion, softness and unctuousness in the body.
 - *Yoga Vasti* - 8 days
 - *Kala Vasti* - 15 days
 - *Karma Vasti* -30 days
 - *Chatrubhadra Kalpa Vasti* – 12 days

- *Vasti* therapy is considered as nectar for both children and grown-ups.
- According to Kashyapa at the age of 1 year i.e. when the child starts to take the solid foods.
- Other types of *Vasti / Basti*:
 - *Shiro Basti*
 - *Kati Basti*
 - *Janu Basti*
 - *Griva basti*
 - *Uro Basti*Etc.

Nasya

Nasya- the use of drugs or medicated *Sneha* through nostrils.

The treatment of choice in disorders above *Greeva* (clavicle)

Types:

Brimhana - *Vata* diseases

Shamana - *Pitta* diseases

Virechana - *Kapha* diseases

Marsha Nasya is contraindicated in a young child

Raktamokshana (blood letting)

- *Raktamokshana* (blood letting)- the process of taking out blood from the body is known as *Raktamokshana*. It is performed to manage the diseases caused by *Rakta* and *Pitta*.
- Regarding *Raktamokshana Siravyadha* (vein puncture) is contraindicated till the age of 16 years.
- ***Jalaukavacharana*** (leech application) is the best method adopted for blood letting in children in case of *Pittaja* and *Raktaja* disorder like *Kukunaka* (conjunctivitis), *Ahipootana* (napkin rashes).
- It may be adopted in diseases like *Ajagallika*, *Charmadala*, *Visarpa*, and such other skin diseases.

Contraindications

- **Pregnancy** (?)
- **Children (below 12 years)** !
- **Old age**
- **General debility**
- **Cardiac problems**
- **Terminally ill patients**
- **Life threatening conditions etc.**

Paschat karma

- *Peyadi krama* (Dietary regime)
- *Rasayana drugs* (Rejuvenation therapy)
- *Shamana drugs* (Palliative therapy)

Purpose of Peyadi krama

- An inevitable part of Panchakarma
- Marked reduction of digestive power after Panchakarma
- Reduced digestive power is rectified with sequential intake of :
 - Light diet
 - Beginning with thin gruel and ending in Normal food

Some research studies on
Panchakarma in children:

1. KM Chudasama & G Singh (1986) reported that *Ashwagandha* with *Shodhana* has shown better results compared with *Ashwagandha* without *Shodhana* therapy.

2. S. K. Ramachandran - Katutaila basti in purishaja krimi

A study on the effect of katutaila vasti in purishaja krimis, in children below 2 years – SK Ramachandran, CHS Shastry, Dept. of KB, IPGT&RA, Jamnagar, 1984.

Katu taila (mustard oil) mixed with Yava Saktu (powder of barley grain) and effect on Purishaja Krimi – Enterobius vermicularis was assessed.

Total patients – 18

In this study 83.33% of cure rate (symptom relief + negative stool report for eggs / cysts etc.) was recorded with 100% relief in symptoms after 7 days of therapy.

Only 1 patient reported treatment complication.

3. Geeta Jatav – Kshirabala Taila Basti in Karshya in children

A comparative study on the effect of Vidarikandadi Vati and Kshirabala Taila Basti in the management of Karshya in children – Geeta Jatav, IP Anand, KS Patel, dept. of KB, IPGT&RA, 2008.

Groups : Gr A – Vidarikandadi Vati – for 4 weeks (pts 20/5) n=15

Gr. B. – Kshirabala Taila Basti – 3 sittings of 7 days each with 3 days interval. (pts 17/2) n=15

Basti dose according to age following Kashyapa Samhita.

Overall effect of therapy on 30 patients

	Gr. A		Gr. B		Total	Percentage
	N	%	N	%		
Marked improvement	0	0	2	13.33	2	6.67
Moderate improvement	2	13.33	11	73.33	13	43.33
Mild improvement	13	86.67	2	13.33	15	50.00
No improvement	00	00	00	00	00	00

Overall effect of therapy on symptoms

Sl. no	Symptoms	% improvement Gr. A	% improvement Gr. B
1	Daurbalya	Mild	Moderate
2	Kshudha	Mild	Moderate
3	Dhamani jala darshana	Mild	Mild
4	Sthula parva	Mild	Mild
5	Nidra	Mild	Moderate
6	Appearance	Moderate	Marked
7	Mala pravritti	Mild	Marked
8	Kapola gata vasa – buccal pad of fat	Mild	Marked

Bottom line: Basti showed better results than V. Vati alone, action of Basti sustained for a longer period even after stopping the therapy and weight continued to increase

4. V. K. Kori – Ashwagandha Siddha Kshira Basti in Krsha in children

A comparative study on Brmhana effect of Asvagandha granules & Asvagandha Siddha Ksirabasti in Krsha children – VK Kori, KS Patel, IU Mistry, dept of KB, IPGT&RA, 1999.

Groups: Total patients – 27 [LAMA 2; n = 25]

G – Oral granules (LAMA 2; n= 17)

B – Basti with Ashwagandha Siddha Kseera Basti for 15 days.(n=10/LAMA 0)

	Symptoms	Improvement in %			
		G group		B group	
		A.T	B.T.	A.T	B.T
1	Appearance	74.99	46.42	35.29	58..82
2	Daurbalya	65.73	62.60	33.33	61.90
3	Loss of appetite	19.76	51.99	62.50	79.16
4	Dhamani jala darshana	71.50	50.18	31.25	75.00
5	Sthula parva	77.77	55.55	41.18	76.47
6	Nidra vaishamya	83.83	64.5	75.00	68.75
7	Constipation	46.00	61.51	91.67	66.67
8	Kshut pipasa	64.00	72.00	00.00	23.80
9	Buccal pad of fat	74.19	67.63	38.89	77.78

Overall effect of therapies on symptoms with follow up					
	Symptoms	Improvement in %			
		G group		B group	
		A.T	Follow up	A.T	Follow up
1	Appearance	Moderately	Less improvement	Less improvement	Moderately
2	Daurbalya	Moderately	Moderately	Less improvement	Moderately
3	Loss of appetite	No change	Moderately	Moderately	Markedly
4	Dhamani jala darshana	Moderately	Moderately	Less improvement	Moderately
5	Sthula parva	Markedly	Moderately	Less improvement	Markedly
6	Nidra vaishamya	Markedly	Moderately	Less improvement	Markedly
7	Constipation	Less improvement	Moderately	Markedly	Moderately
8	Kshut pipasa	Moderately	Moderately	No change	Less improvement
9	Buccal pad of fat	Moderately	Moderately	Less improvement	Markedly

Bottom line: Weight gain was readily stable neither increased nor decreased in A. granules group, in Basti group results were better, action of Basti sustained for longer period even after stopping the therapy and weight gain continued to increase.

5. Mukesh Suthar – Asthapana Basti on Udara Krimi.

A study on Apakarshana of Krimis (w.s.r. to nematodes in the gut) – Mukesh N. Suthar, SM Rathi, CHS Shastry, Dept. of KB, IPGT&RA, 1983.

Asthapana Basti was given for Apakarshana of Krimi. First 7 days Tila + Guda with milk was given, on the 7th day Swadishta Virechana Churna was given. On the 8th day onwards Asthapana Basti was given with Gomutra + water (1 liter each and 250 gm of Tulasi leaves, 60 CC of Tila Taila and 5 gm of Madanaphala was added in Kalka form, liquid was boiled to reduce to 1 liter). From 8th day they were administered with 250 ml of water processed with Tulasi leaves kept in copper vessel.

Result:

Total patients – 12

Cured	– 3	– 25%
Improved	– 7	– 58.33%
Uncured	– 2	– 16.66%

6. Nivedita Kinalekar – Kshira Basti in Krsa children

A clinical study on Brmhana effect of Ksira Basti in neonates & in Krsa children – Nivedita S. Kinalekar, AR Rao, IU Mistry, dept. of KB, IPGT&RA, 1998.

Groups: Gr. I - Ksira Basti with Matru Stanya n=6
Gr. II - Ashvagandha siddha ksira basti; n=14; LAMA 6.
(Ashvagandha, Ghrita, Taila, Ksheera, Saindhava, Madhu)

Duration: For 15 days

Effect of Basti on weight gain n=13

Days	BT	AT	d	%	SD	SE	T	P
15	13.03	13.94	0.90	6.41 ↑	0.18	0.05	17.66	<0.001
45	13.03	14.57	1.53	11.87 ↑	0.23	0.06	23.39	<0.001

Result	No. of patients	Percentage
Good improvement	11	78.57
Moderate improvement	03	21.43
Less improvement	00	00
Unchanged	00	00

7. Sushmita Saxena – Panchabhautika Taila Nasya in Mental Retardation

A comparative study on effect of Panchabhautika Taila Nasya with Samvardhana Ghrita and Jyotishmati Taila in management of Mandabuddhitva (Mental retardation) – Sushmita Saxena, KS Patel, IU Mistry, Dept. of KB, IPGT&RA, 2001.

Grouping:

Gr. S – Panchabhautika Taila Nasaya (K.S. Shatakalpa Adhyaya) + Samvardhana Ghrita (K.S. Lehadhyaya)

Gr. J - Panchabhautika Taila Nasya + Jyotishmati Taila

Gr. P - Panchabhautika Taila Nasya only

Duration: 2 months for oral drugs with Nasya in alternate weeks in respective groups.

Overall effect of therapies: (n=26)

	Gr. S		Gr. J		Gr. P		Total	
	No. of Pts.	%	No. of Pts.	%	No. of Pts.	%	No. of Pts.	%
Cured	0	0	0	0	0	0	0	0
Markedly improved	0	0	0	0	0	0	0	0
Moderately improved	9	90	00	0	0	0	9	34.6
Improved	1	10	4	50	2	25	7	26.9
Unchanged	0	0	4	50	6	75	10	38.4
Total	10	-	8	-	8	-	26	-

Effect of therapies on performance IQ (n=26) Verbal IQ (n=26) & Overall IQ							
Overall IQ	Mean score		% relief	SD	SE	t	P
	BT	AT					
Gr. S	54.10	63.30	17.00	2.85	0.90	10.17	<0.001
Gr. J	49.25	54.87	11.41	1.84	0.65	8.61	<0.001
Gr. P	55.50	56.25	1.35	0.88	0.31	2.39	<0.05

Verbal IQ	Mean score		% relief	SD	SE	T	P
	BT	AT					
Gr. S	64.50	74.20	15.03	3.40	1.07	9.01	<0.001
Gr. J	59.25	65.25	10.12	1.60	0.56	10.58	<0.001
Gr. P	63.13	64.50	2.11	1.68	0.58	2.30	>0.05

Performance IQ	Mean score		% relief	SD	SE	T	P
	BT	AT					
Gr. S	53.0	60.6	14.33	3.89	1.23	6.17	<0.001
Gr. J	49.63	52.5	5.79	2.03	0.72	4.00	<0.001
Gr. P	56.25	56.50	0.44	0.70	0.25	1.0	>0.10

8. Mayank Maniar- Ashtamangala Ghrita Nasya in Mental Retardation

A comparative study of Jyotishmati Taila and Astamangala Ghrita Nasya in the management of mental retardation - Mayank Maniar, HJ Takwani, KS Patel, I. U. Mistry, Dept. of KB, IPGT&RA, 1999.

Groups:

J - Jyotishmati Taila internally 2 - 10 drops with milk, (12 patients)

A - Astamangal Ghrita (ASU 1/42, Bh. R.) Nasya, 6 - 8 drops acc. to age (15/1 pt)

C - placebo capsule (8/1 pt)

Duration: 1 week with 1 week gap, for 2 months (total 4 courses)

Total patients 35 , completed 33, **LAMA 2**

IQ n = 33	Mean score		% relief	SD	SE	t	P
	BT	AT					
Gr. A	63.40	68.79	8.50	3.246	0.937	5.752	<0.001
Gr. J	55.94	62.88	12.41	1.974	0.527	13.156	<0.001
Gr. C	52.03	52.02	0.03	0.706	0.266	0.058	>0.1

Overall effect of therapies:

Overall effect of therapies	Gr. A		Gr. J		Gr. C		Total	
	No. of Pts.	%	No. of Pts.	%	No. of Pts.	%	No. of Pts.	%
Cured	0	00.00	0	00.00	0	00.00	0	00.00
Markedly improved	5	41.67	3	21.43	0	00.00	8	24.24
Moderately improved	2	16.67	1	07.14	0	00.00	3	09.09
Improved	3	25.00	8	57.14	2	28.57	13	39.39
Unchanged	2	16.67	2	14.29	5	71.43	9	27.27

9. Bharvi B. Trivedi – Astapallava Taila Nasya in Pratishyaya

A comparative clinical trial of Agastya Yoga and Ashtapallava Taila Nasya in the management of Pratishyaya - Dr. Bharvi B Trivedi, IP Anand, KS Patel, MA Pandya, Dept of Kaumarabhritya, IPGT&RA, Jamnagar, 2004.

Study in brief: It was a comparative study of the effect of Agastya Yoga (Agastya Rasayanam internally for 1 month duration) and Ashtapallava Taila Nasya (Ahtapallava Taila Nasya + placebo) and a placebo control group; total 50 patients registered, 17 LAMA, 20 pts in Gr. 1 (7 LAMA), 18 pts in Gr. 2 (6 LAMA), 12 pts in Gr. 3 (4 LAMA).

Dose of Nasya - 2 drops in each nostril once in a day [Pratimarsha Nasya]

Duration – 1 month

No	Total effect of therapy	Agastya Yoga group	Ashtapallava Taila group	Placebo group
1	Effective	76.92	75	75
2	Moderately effective	7.692	25	12.5
3	Partially effective	15.38	0	0
4	No effect	0	0	12.5

10. Ashok Kumar k – Panchakarma procedures in Bala Pakshaghata

A study on Bala Pakshaghata (poliomyelitis) w.s.r. to its management in paediatric practice using certain indigenous drugs and Panchakarma procedures – Ashok Kumar K, IU Mistry, MS Shastry, Dept. of KB, IPGT&RA, 1990.

STUDY CONCLUDES: the effects of the coined Panchakarma therapy (Sneha, Sveda, Vasti with Sahachara Taila) were encouraging for the patients of Bala Pakshaghata particularly when other medical sciences have got no cure for these patients and only hope for them is merely of the nature which may show some improvement to reduce their miseries with the advance of their childhood to the youth age.

All patients were given with Snehabhyanga, Shali Panda Sveda and Matra Vasti (with Sahachara Taila) for 42 days with a gap of 7 days in between days of one course of treatment. Ghrita was given at dose of 10 ml twice a day (20 ml total) in Group A Ashtamangala Ghrita, Group B was without this internal medication..

Total patients – 12

Total effect of therapy:	Gr. A	%	Gr. B	%
	No. of pts		No. of pts	
Cured	00	00	00	00
Markedly improved	2	33.33	01	16.67
Improved	2	33.33	3	50.00
Poor improvement	1	16.67	1	16.67
Unchanged	1	16.67	2	33.33

Panchakarma in CP

Research	Group A	Group B
Dr. Apexa G. Vyas 2011	<i>Samvardhana Ghrita</i> + <i>Abhyanga with Bala Taila</i> + <i>Shashtika Shali Pinda</i> <i>Sweda</i>	<i>Samvardhana Ghrita</i>
Result	Group A has shown better effect in the components of Motor system compared to Group B	
Dr. Sagar Bhinde 2012	<i>Ashtanga Ghrita</i> + <i>Udvardana, Abhyanga</i> <i>Chaturbhadra Kalpa Basti</i>	<i>Ashtanga Ghrita</i> + <i>Udvardana, Abhyanga</i> <i>Yoga Basti</i>
Result	Here both group shows similar kind of result on motor & Growth component.	

Research	Group A	Group B
Dr. Pavan D. Gor 2013	<i>Samvardhana Ghrita</i> + <i>Yoga basti</i>	<i>Samvardhana Ghrita</i>
Result	In both groups, shown improvement ranging from 10 to 15 % as per the criteria of overall effect of therapy.	
Dr. Satyavati Rathia 2014	<i>Samvardhana Ghrita</i> + <i>Yoga basti</i>	<i>Samvardhana Ghrita</i> + <i>Udvaartana, Abhyanga & Swedana</i>
Result	In both groups, 10 to 17 % improvement shown in overall effect of therapy.	

End notes:

- Complications of Panchakarma:
 - Patient
 - Procedure & Drugs
 - Physician
- When to stop ... ?
- Frequency of Procedures..?

Panchakarma in Paediatric Practice:

- Majority conditions are managed with *Purvakarma* or with its variants
- *Pradhana Karma* are done in specific conditions only
- *Paschat Karma* is a MUST in all procedures
- Modification suitable to age, condition, *Bala* etc. is advised
- Use of *Rasayana* – *BAla Rasayana*

Conclusions:

- A well known broad subject, having preventive, curative as well as rejuvenative effects.
- Due to *Asampoorna Dhatu Bala*, children fails to withstand the stress and strain of Panchakarma therapy, especially *Vamana*.
- A simple modification in *Ahara*, *Vihara* and advocating of the right kind of *Shamana Aushadha* may bring satisfactory results.
- Even *Purva Karma* too have much limitations.
- The indication and contraindications of Panchakarma during childhood is mostly dependent on structural and functional maturity as well as the perceptual capacity and skill of the child, which determine the selection of the treatment choice.

- The chronological age should not be a criteria for adaptation of Panchakarma.
- A judicious understanding of the intensity of the pathology, the fitness of the child and the skill of the physician form the tripod for successful adaptation of the Panchakarma.
- Despite of difficulty encountered in making a treatment choice in the management of diseases of children, Panchakarma should not be grossly overlooked by generalizing childhood as a contraindication for carrying out Panchakarma.
- A rational understanding of the disease affecting the child, the phase of childhood, and feasibility, if the right kind of Panchakarma is adopted could work wonders in the management of *Balaroga*.


*Ekam shastramadheeyano na vidyaat shastranishchayam |
Tasmaat bahushrutam shastram vijnaneeyat chikitsaka:|*





Acknowledgements:

- Ministry of AYUSH, Govt. of India
- Prof. Tanuja M Nesari, Director, ALL INDIA INSTITUTE OF AYURVEDA, New Delhi
- Dr. SN Gupta, Nadiad, Gujarat
- Dr. Arun Kumar Mahapatra, Staff & students, Dept. of Kaumarabhryta, AIIA, New Delhi
- Authorities of AIIA, New Delhi
- Mark Rosenberg, Kerstin Rosenberg & Team EAA
- All near & dear ones



Thank
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