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.
Purva Karma

DIPANA & PACHANA

Peya
Churma
Kwatha
etc.

SNEHANA

BAHYA

ABHYANTARA

Sthavara
Jangama
(Pravicharana)

Sthavara
Jangama
(Achchasneha)

SWEDANA

Sagni
- Drava (Avagaha, Parishka)
- Upanaha (Pradeha, Bandhana, Potali)
- Ushma (Nadi, Bhu, Kuti, Kumbhi, Karshu, Kupa, Holaka etc.)
- Tapa (Pani, Valuka, Kapala, Prastara etc.)

Niragni
- Vyayama, Guru,
  Kshudha, Bahupana,
  Bhaya, Krodha,
  Upanaha, Aahava,
  Aatapa, Ushnasadana)

Pradhana Karma

Vamana

Virechana

Basti

Nasya

Raktamokshana

Anulomana

Sramsana

Bhedana

Rechana

Brumhana

Shodhana

Shamana

Niruha
- Shodhana
- Lekhana
- Brumhana
- Shamaana
- Utkleshana
- Rasayana
- Vrushya
- Etc.

Sneha
- Snehana
- Anuvasana
- Matravasti

Uttara Basti
- Garbhashaya gata
- Mutrashaya gata
- Yoni dhavana

• Shrunga
• Alabu
• Jalauka
• Prachchanna
• Siramokshana
• Ghati yantra etc
### Pashchat Karma

#### Rasayana therapy

- Shamana drugs

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<th>20. Lepa</th>
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<td>22. Snehayagaha</td>
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<td>2. Valuksa sveda</td>
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<td>9. Shiropichu</td>
<td>23. Parisheka</td>
<td><strong>Swedana</strong></td>
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<td>3. Prachchanna</td>
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</tr>
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<td>5. Alabu avacharana</td>
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<td><strong>Other procedures</strong></td>
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<tr>
<td>6. Ghatiyantara avacharana</td>
<td><strong>Other procedures</strong></td>
<td>1. Dhara : Takra / Ksheera / Tala / jala dhara</td>
</tr>
<tr>
<td><strong>Other procedures</strong></td>
<td>2. Tala podichchil</td>
<td>3. Anna lepana</td>
</tr>
</tbody>
</table>

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- Dhara: Takra / Ksheera / Tala / jala dhara
- Tala podichchil
- 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
Shamana | Shodhana
---|---
Pacifies *Dosha* locally | Removes *Dosha* from the body
Comparatively of temporary in action, done in *Alpa Dosha* and *Alpa Bala* | Effect lasts for long, done in *Prabhuta dosha* and *Pravara Bala*
Does not interfere with *Dhatu* | Normalizes *Dhatu* 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

1. **Purva karma**

2. **Pradhana karma**

3. **Paschat karma**

**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 Dhatus 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.

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**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 Snigdhata 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 boosts 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.
Swedana (Sudation) 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

<table>
<thead>
<tr>
<th>Types of Sudation</th>
<th>Body parts</th>
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<tbody>
<tr>
<td><em>Mridu</em> (Mild)</td>
<td>Testicle, cardiac region &amp; eyes</td>
</tr>
<tr>
<td><em>Madhya</em> (Moderate)</td>
<td>Genitals, groin region and joints</td>
</tr>
<tr>
<td>Mild, moderate and strong (according to need)</td>
<td>All other body parts</td>
</tr>
</tbody>
</table>
**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:**
- 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 Sveda:**

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

**Parisheka Sveda:**

- 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

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 *Ghrita* and *Saindhava* (Rock salt) for this purpose.

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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 without 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.

<table>
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<tr>
<th>Scholar</th>
<th>Appropriate age</th>
<th>Comments</th>
</tr>
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<tr>
<td>Kautsya</td>
<td>6 year and onwards</td>
<td>Suffer from eye disorders</td>
</tr>
<tr>
<td>Kashyapa</td>
<td>6 - 8 year</td>
<td>Vaman drugs use with sugar</td>
</tr>
<tr>
<td>Janaka</td>
<td>Infants</td>
<td>2 - 3 seed of Apamarga</td>
</tr>
</tbody>
</table>
• **Ksheerada** - Apply *Vamana* drugs over the breast of the mother and after is dries up it should be washed and baby is made to breast fed 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.

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**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.

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**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.

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**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
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.

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

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Gr. A</th>
<th>Gr. B</th>
<th>Total</th>
<th>Percentage</th>
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<tr>
<td>Marked</td>
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<td>2</td>
<td>2</td>
<td>6.67</td>
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<tr>
<td>Moderate</td>
<td>2</td>
<td>11</td>
<td>13</td>
<td>43.33</td>
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<td>Mild</td>
<td>13</td>
<td>2</td>
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<td>50.00</td>
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<tr>
<td>No improvement</td>
<td>00</td>
<td>00</td>
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<tr>
<td>Sl. no</td>
<td>Symptoms</td>
<td>% improvement</td>
<td>% improvement</td>
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<td></td>
<td></td>
<td>Gr. A</td>
<td>Gr. B</td>
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<td>Daurbalya</td>
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<td>2</td>
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<td></td>
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<tr>
<td>3</td>
<td>Dhamani jala darshana</td>
<td>Mild</td>
<td>Mild</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Sthula parva</td>
<td>Mild</td>
<td>Mild</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Nidra</td>
<td>Mild</td>
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<tr>
<td>6</td>
<td>Appearance</td>
<td>Moderate</td>
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<td></td>
</tr>
<tr>
<td>7</td>
<td>Mala pravritti</td>
<td>Mild</td>
<td>Marked</td>
<td></td>
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<tr>
<td>8</td>
<td>Kapola gata vasa – buccal pad of fat</td>
<td>Mild</td>
<td>Marked</td>
<td></td>
</tr>
</tbody>
</table>

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.

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4. V. K. Kori – Ashwagandha Siddha Kshira Basti in Krsa in children
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)
<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Improvement in %</th>
<th>G group</th>
<th>B group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A.T</td>
<td>Follow up</td>
</tr>
<tr>
<td>1  Appearance</td>
<td>Moderately</td>
<td>Less improvement</td>
<td>Less improvement</td>
</tr>
<tr>
<td>2  Daurbalya</td>
<td>Moderately</td>
<td>Moderately</td>
<td>Less improvement</td>
</tr>
<tr>
<td>3  Loss of appetite</td>
<td>No change</td>
<td>Moderately</td>
<td>Moderately</td>
</tr>
<tr>
<td>4  Dhamani jala darshana</td>
<td>Moderately</td>
<td>Moderately</td>
<td>Less improvement</td>
</tr>
<tr>
<td>5  Shula parva</td>
<td>Markedly</td>
<td>Moderately</td>
<td>Less improvement</td>
</tr>
<tr>
<td>6  Nidra vaishamya</td>
<td>Markedly</td>
<td>Moderately</td>
<td>Less improvement</td>
</tr>
<tr>
<td>7  Constipation</td>
<td>Less improvement</td>
<td>Moderately</td>
<td>Markedly</td>
</tr>
<tr>
<td>8  Kshut pipasa</td>
<td>Moderately</td>
<td>Moderately</td>
<td>No change</td>
</tr>
<tr>
<td>9  Buccal pad of fat</td>
<td>Moderately</td>
<td>Moderately</td>
<td>Less improvement</td>
</tr>
</tbody>
</table>

**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.

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


**Groups:**
- **Gr. I** - Ksira Basti with Matru Stanya  n=6
- **Gr. II** - Ashvagandha siddha kshira basti; n=14; LAMA 6.

(Ashvagandha, Ghrita, Taila, Ksheera, Saindhava, Madhu)

**Duration:** For 15 days

**Effect of Basti on weight gain n=13**

<table>
<thead>
<tr>
<th>Days</th>
<th>BT</th>
<th>AT</th>
<th>d</th>
<th>%</th>
<th>SD</th>
<th>SE</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>13.03</td>
<td>13.94</td>
<td>0.90</td>
<td>6.41↑</td>
<td>0.18</td>
<td>0.05</td>
<td>17.66</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>45</td>
<td>13.03</td>
<td>14.57</td>
<td>1.53</td>
<td>11.87↑</td>
<td>0.23</td>
<td>0.06</td>
<td>23.39</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Result</th>
<th>No. of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good improvement</td>
<td>11</td>
<td>78.57</td>
</tr>
<tr>
<td>Moderate improvement</td>
<td>03</td>
<td>21.43</td>
</tr>
<tr>
<td>Less improvement</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>Unchanged</td>
<td>00</td>
<td>00</td>
</tr>
</tbody>
</table>

---

### 7. Sushmita Saxena – Panchabhattika Taila Nasya in Mental Retardation


**Grouping:**
- **Gr. S** – Panchabhattika Taila Nasaya (K.S. Shatakalpa Adhyaya) + Samvardhana Ghrita (K.S. Lehadhyaya)
- **Gr. J** – Panchabhattika Taila Nasya + Jyotishmati Taila
- **Gr. P** - Panchabhattika Taila Nasya only

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

**Overall effect of therapies: (n=26)**

<table>
<thead>
<tr>
<th></th>
<th>Gr. S</th>
<th>Gr. J</th>
<th>Gr. P</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of Pts.</td>
<td>%</td>
<td>No. of Pts.</td>
<td>%</td>
</tr>
<tr>
<td>Cured</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Markedly</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>improved</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately</td>
<td>9</td>
<td>90</td>
<td>00</td>
<td>0</td>
</tr>
<tr>
<td>improved</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improved</td>
<td>1</td>
<td>10</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td>Unchanged</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>-</td>
<td>8</td>
<td>-</td>
</tr>
</tbody>
</table>
## Effect of therapies on performance IQ (n=26) Verbal IQ (n=26) & Overall IQ

<table>
<thead>
<tr>
<th></th>
<th>Mean score</th>
<th>% relief</th>
<th>SD</th>
<th>SE</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall IQ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gr. S</td>
<td>54.10</td>
<td>63.30</td>
<td>17.00</td>
<td>2.85</td>
<td>0.90</td>
<td>10.17</td>
</tr>
<tr>
<td>Gr. J</td>
<td>49.25</td>
<td>54.87</td>
<td>11.41</td>
<td>1.84</td>
<td>0.65</td>
<td>8.61</td>
</tr>
<tr>
<td>Gr. P</td>
<td>55.50</td>
<td>56.25</td>
<td>1.35</td>
<td>0.88</td>
<td>0.31</td>
<td>2.39</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Verbal IQ</th>
<th>Mean score</th>
<th>% relief</th>
<th>SD</th>
<th>SE</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gr. S</td>
<td>64.50</td>
<td>74.20</td>
<td>15.03</td>
<td>3.40</td>
<td>1.07</td>
<td>9.01</td>
</tr>
<tr>
<td>Gr. J</td>
<td>59.25</td>
<td>65.25</td>
<td>10.12</td>
<td>1.60</td>
<td>0.56</td>
<td>10.58</td>
</tr>
<tr>
<td>Gr. P</td>
<td>63.13</td>
<td>64.50</td>
<td>2.11</td>
<td>1.68</td>
<td>0.58</td>
<td>2.30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance IQ</th>
<th>Mean score</th>
<th>% relief</th>
<th>SD</th>
<th>SE</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gr. S</td>
<td>53.0</td>
<td>60.6</td>
<td>14.33</td>
<td>3.89</td>
<td>1.23</td>
<td>6.17</td>
</tr>
<tr>
<td>Gr. J</td>
<td>49.63</td>
<td>52.5</td>
<td>5.79</td>
<td>2.03</td>
<td>0.72</td>
<td>4.00</td>
</tr>
<tr>
<td>Gr. P</td>
<td>56.25</td>
<td>56.50</td>
<td>0.44</td>
<td>0.70</td>
<td>0.25</td>
<td>1.0</td>
</tr>
</tbody>
</table>

### 8. Mayank Maniar- Ashtamangala Ghrita Nasya in Mental Retardation


**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

<table>
<thead>
<tr>
<th>IQ n = 33</th>
<th>Mean score</th>
<th>% relief</th>
<th>SD</th>
<th>SE</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gr. A</td>
<td>63.40</td>
<td>68.79</td>
<td>8.50</td>
<td>3.246</td>
<td>0.937</td>
<td>5.752</td>
</tr>
<tr>
<td>Gr. J</td>
<td>55.94</td>
<td>62.88</td>
<td>12.41</td>
<td>1.974</td>
<td>0.527</td>
<td>13.156</td>
</tr>
<tr>
<td>Gr. C</td>
<td>52.03</td>
<td>52.02</td>
<td>0.03</td>
<td>0.706</td>
<td>0.266</td>
<td>0.058</td>
</tr>
</tbody>
</table>
### Overall effect of therapies:

<table>
<thead>
<tr>
<th>Overall effect of therapies</th>
<th>Gr. A</th>
<th>Gr. J</th>
<th>Gr. C</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Pts.</td>
<td>%</td>
<td>No. of Pts.</td>
<td>%</td>
<td>No. of Pts.</td>
</tr>
<tr>
<td>Cured</td>
<td>0</td>
<td>0.00</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Markedly improved</td>
<td>5</td>
<td>41.67</td>
<td>3</td>
<td>21.43</td>
</tr>
<tr>
<td>Moderately improved</td>
<td>2</td>
<td>16.67</td>
<td>1</td>
<td>07.14</td>
</tr>
<tr>
<td>Improved</td>
<td>3</td>
<td>25.00</td>
<td>8</td>
<td>57.14</td>
</tr>
<tr>
<td>Unchanged</td>
<td>2</td>
<td>16.67</td>
<td>2</td>
<td>14.29</td>
</tr>
</tbody>
</table>


**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

<table>
<thead>
<tr>
<th>No.</th>
<th>Total effect of therapy</th>
<th>Agastya Yoga group</th>
<th>Ashtapallava Taila group</th>
<th>Placebo group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Effective</td>
<td>76.92</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>2</td>
<td>Moderately effective</td>
<td>7.692</td>
<td>25</td>
<td>12.5</td>
</tr>
<tr>
<td>3</td>
<td>Partially effective</td>
<td>15.38</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>No effect</td>
<td>0</td>
<td>0</td>
<td>12.5</td>
</tr>
</tbody>
</table>
**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

<table>
<thead>
<tr>
<th>Total effect of therapy:</th>
<th>Gr. A</th>
<th>%</th>
<th>Gr. B</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of pts</td>
<td></td>
<td></td>
<td>No. of pts</td>
<td></td>
</tr>
<tr>
<td>Cured</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>Markedly improved</td>
<td>2</td>
<td>33.33</td>
<td>01</td>
<td>16.67</td>
</tr>
<tr>
<td>Improved</td>
<td>2</td>
<td>33.33</td>
<td>3</td>
<td>50.00</td>
</tr>
<tr>
<td>Poor improvement</td>
<td>1</td>
<td>16.67</td>
<td>1</td>
<td>16.67</td>
</tr>
<tr>
<td>Unchanged</td>
<td>1</td>
<td>16.67</td>
<td>2</td>
<td>33.33</td>
</tr>
</tbody>
</table>

---

**Panchakarma in CP**

<table>
<thead>
<tr>
<th>Research</th>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Apexa G. Vyas 2011</td>
<td>Samvardhana Ghrita + Abhyanga with Bala Taila + Shashtika Shali Pinda Sweda</td>
<td>Samvardhana Ghrita</td>
</tr>
<tr>
<td><strong>Result</strong></td>
<td>Group A has shown better effect in the components of Motor system compared to Group B</td>
<td></td>
</tr>
<tr>
<td>Dr. Sagar Bhinde 2012</td>
<td>Ashtanga Ghrita + Udvartana, Abhyanga Chaturbhadra Kalpa Basti</td>
<td>Ashtanga Ghrita + Udvartana, Abhyanga Yoga Basti</td>
</tr>
<tr>
<td><strong>Result</strong></td>
<td>Here both group shows similar kind of result on motor &amp; Growth component.</td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>Group A</td>
<td>Group B</td>
</tr>
<tr>
<td>----------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Dr. Pavan D. Gor 2013</td>
<td>Samvardhana Ghrita + Yoga basti</td>
<td>Samvardhana Ghrita</td>
</tr>
<tr>
<td>Result</td>
<td>In both groups, shown improvement ranging from 10 to 15% as per the criteria of overall effect of therapy.</td>
<td></td>
</tr>
<tr>
<td>Dr. Satyavati Rathia 2014</td>
<td>Samvardhana Ghrita + Yoga basti</td>
<td>Samvardhana Ghrita + Udvartana, Abhyanga &amp; Swedana</td>
</tr>
<tr>
<td>Result</td>
<td>In both groups, 10 to 17% improvement shown in overall effect of therapy.</td>
<td></td>
</tr>
</tbody>
</table>

**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:||
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- Dr. Arun Kumar Mahapatra, Staff & students, Dept. of Kaumarabhritya, AIIA, New Delhi
- Authorities of AIIA, New Delhi
- Mark Rosenberg, Kerstin Rosenberg & Team EAA
- All near & dear ones

Thank you all