Conceptual study on osteoporosis and gastrointestinal tract symptoms with reference to purishdhara kala sa eva asthidhara kala

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Abstract:

Introduction – Study of Kala is important in study of human physiology along with anatomy. When either of two functions is disturbed pathology occurs & so for the treatment purpose, study of Kala is important1.

The correlation between Purishdharakala as Astidharakala has been mentioned in Sushrut Samhita by Dalhan commentary. This correlation has been considered at multiple instances in general learning & in usage of Ayurvedic treatment (both Shaman & Shodhan Karma)2.

In Modern Science, the Gastroenterologist many a times come across osteoporosis or osteopenia in patient with persistent gastrointestinal symptoms diseases. Gastrointestinal disorders can lead to significant impact on bone health 3.

This is an attempt to assess association between Osteoporosis and Gastrointestinal tract symptoms with reference to Purishdhara Kala as Asthidhara Kala concept.

The Knowledge of Purishdhara Kala Sa Eva Asthidhara Kala will throw light on the treatment Principles of Osteoporosis.

Aim – Conceptual study on Osteoporosis and Gastrointestinal Tract Symptoms with reference To Purishdhara Kala Sa Eva Asthidhara Kala

Objectives – To Review Purishdhara Kala Sa Eva Asthidhara Kala in both Ayurvedic and modern text.

Material and Methods – All the Ayurvedic and Modern literature and contemporary texts including websites will be reviewed.

Discussion – The review of Purishdhara Kala as Asthidhara kala from the purview of modern aspect will be discussed.
Conclusion – Proper conclusions related to the conceptual study on osteoporosis and gastrointestinal tract symptoms with reference to Purishdhara Kala Sa Eva Asthidhara Kala will be drawn.

Key Words – Purishdhara Kala, Asthidhara Kala, Osteoporosis

Introduction: There are seven Kala, situated between (Dhatu and Ashaya). They define the limits between particular system and their limiting membrane with other systems (Dhatu and Ashaya).

Study of Kala is an important in study of human physiology along with anatomy. When either of two functions is disturbed pathology occurs & so for the treatment purpose, study of Kala is important.

Out of 7 Kala mentioned, 5th one is Purishdhara kala, which being situated in Pakvashaya (Intestine), separates Mala (waste products, stool especially) from the food material after its digestion.

Ayurveda Science introspects several things by analysis of several different concepts mentioned in different sthanas of the Ayurveda classics. The right interpretation of the concepts can be done by compiling, analyzing and then verifying the different references found in different contexts. Likewise, the concept of Kala mentioned by Achraya Sushruta in Sharirsthana can be interpreted and understood better by referring to description of Kala in Saptama Vega of the

Snake bite mentioned in Sushruta Kalpastrhana.

Correlation between Purishdharakala as Astidharakala has been mentioned in Sushrut Samhita by Dalhan commentary.

This correlation has been used at multiple instances in general learning & also usage of Ayurvedic treatments (both Shaman & Shodhan Karma).

In Modern Science, the Gastroenterologist may come across osteoporosis or osteopenia in patient with persistent gastrointestinal diseases. Gastrointestinal disorders can lead to significant impact on bone health.

This an attempt to assess association between Osteoporosis and Gastrointestinal tract symptoms with reference to Purishdhara Kala as Asthidhara Kala concept.

Aim - Conceptual study on Osteoporosis And Gastrointestinal Tract Symptoms with Reference To Purishdhara Kala Sa Eva Asthidhara Kala

Objectives –

1. To review Purishdhara Kala Sa Eva Asthidhara Kala from Ayurvedic text
2. To study modern factors related to Osteoporosis And Gastrointestinal Tract Symptoms

**Materials and methods:** Review of Modern Literature and contemporary texts including websites about the diseases reviewed and documented in study under following headings:

1. **Kala Sharir** - Kala reflects the structural & functional boundaries of organs

2. **Purishdhara Kala** - Out of 7 Kala mentioned, 5th one is Purishdhara kala situated inside the alimentary tract, commencing from Yakrut (Liver) and the Antra (Intestine), this Maladharaka kala separates the Mala (Faeces) at the Unduka (caceum). In Sushrut samhita kalpasthan Chapter-4 i.e ‘Sarpadashtavishavidnyayni’ , Acharya Sushrut has recited Kala in detail in the context of Saptavega caused due to Sarpadansha.

3. **Asthidhara Kala** – Acharya Dalhana has commented the following points regarding Kala.

   Here Dalhana has considered the meaning धातुमध्येषु as धातुमध्येषु (In the Dhatu). Acharya Sushrut has previously described the Kala in sharirsthan ग्यान्यायकरण अध्याय (Ref- Su.Sh.Sharirsthan Dalhan tika 4/40)

   Acharya Dalhan has opined that Dhatu is related to Dhara & like the Saptadhatu he has also mentioned कफ़, पित्त, पूरीष as धातु. While explaining Saptavega, Acharya Dalhan has given following Explanation – (Ref- Su.Sh.Sharirsthan Dalhan tika 4/5)

   1. रक्तधरा कला—2nd Kala, Situated in intermediary region between Rasa & Raksh Dhatu
   2. मांसधरा कला—1st Kala, Situated in intermediary region between Raksh & Mansa dhatu
   3. मेडोधरा कला— 3rd Kala, Situated in intermediary region between Mansa & Meda dhatu
   4. श्लेष्मधरा कला – 4th Kala, Situated in intermediary region between Meda & Kapha dhatu
   5. पुरीषधरा कला— 5thKala, Situated in Intermediary region between Kapha & Purish Dhatu
   6. पित्तधरा कला - 6thKala, Situated in Intermediary region between Purish &Pitta Dhatu S
   7. शुक्रधरा कला— 7th Kala, Situated in Intermediary region between Pitta & Shukra Dhatu.

When there is Kleda formation in the intermediary between two Dhatus due to the Ushma of the respective Dhatu, the process of Parinaman (Transformation) leads to formation of Kala

According to this definition Purishdhara Sa Eva Asthidhara Kala forms the Kleda present between Dhatus i.e Kapha and Purish (Ref - अष्ाांगहद्य शारीरस्थान सवाांगसुांदर आयुवेदरसायन टीका ३ /९)
Therefore, considering the above points Acharya Dalhan said that it would not be wrong to consider \(^7\) (Ref- सुश्रुत सांपहता कल्िस्थान ४ / ३९) पुरिषधरा कला as अस्थिधराकला.

As the correlation between Purishdharakala as Astidharakala has been mentioned in Sushrut Samhita by Dalhan commentary.

**Gastrointestinal Tract symptoms** - Heartburn, indigestion/dyspepsia, abdominal pain, bloating and diarrhoea/constipation are common in the community \(^8\).

### Domain Subdomain

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<thead>
<tr>
<th>GI Symptoms</th>
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<tr>
<td>Belly pain</td>
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<td>Bloat/gas</td>
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<tr>
<td>Diarrhea</td>
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<tr>
<td>Constipation</td>
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<tr>
<td>Bowel incontinence/soilage (e.g., accidents)</td>
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<tr>
<td>Heartburn/reflux</td>
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<tr>
<td>Swallowing</td>
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<td>Nausea/vomiting</td>
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<th>Facets</th>
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<td>Bloating sensation (e.g., feeling pressure or fullness)</td>
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<td>Bloating appearance (e.g., belly swollen or larger than usual size)</td>
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<tr>
<td>Flatulence (e.g., passing gas)</td>
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4. **Osteoporosis** - Osteoporosis is a disease in which bones deteriorate or become brittle and fragile due to low bone mass and bone tissue loss.

1 in 2 women and up to 1 in 4 four men who are over age 50 will break a bone due to osteoporosis \(^9\).

**Discussion** – Several Research works were also reviewed for this discussion purpose.

Concept of Kala mentioned by Acharya Sushruta in Sharirsthana can be interpreted and understood better by referring to description of Kala in Saptama Vega of the Snake bite mentioned in Sushruta Kalpasthana.

Purishdara Sa Eva Asthidhara Kala is form the Kleda Present Between Dhatus i.e Kapha and Purish.

Gastroenterologist may come across osteoporosis or osteopenia in patient with persistent gastrointestinal symptoms diseases.
Conclusion -

After review of Purishdhara kala Sa Eva Asthidhara Kala it can be concluded that we assess association between Osteoporosis and Gastrointestinal tract symptoms with reference to Purishdhara Kala as Asthidhara Kala concept. This will help in the right interpretation of the various general learning’s & also usage of Ayurvedic treatments (both Shaman & Shodhan Karma).

Hence Acharya Charak explained this correlation in Sutrasathan Vividhashtitapitity Adhyay. The remedial measure in the disorders of Asthi consists of the multiple evacuative measures like medicated enema, intake of bitter-medicated milk and ghee. Gastrointestinal disorders can lead to significant impact on bone health and are frequent causes of osteoporosis and related fractures.

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