Cervical spondylosis: An ayurvedic review

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Abstract

Introduction: In this period of modernization and fast life, people undergo many unwanted practices like improper sitting posture for long time in offices, continuous work in one posture, over exertion, lack of physical exercise, excessive loads to bearing movements during travelling and sports, all these factors create undue pressure and compressive injury to the spine, that play an important role in producing disease like Cervical Spondylosis. Modern medicine has limited conservative and surgical procedures which provide only temporary symptomatic relief and many times have hazardous side effects. In Ayurveda through its sign and symptoms it can be correlated with Prishtagraha. There is need to explore the Ayurvedic perspective of cervical spondylosis by which we can cure and prevent this disease.

Aim & Objective: To study the clinical manifestations, etiological factors, pathogenesis and management of cervical spondylosis through Ayurvedic perspective.

Materials and Methods: For this study Ayurveda Samhitas like Charak Samhita, Sushruta Samhita etc, authentic publications, internet and modern medical literature have been reviewed.

Conclusion: It is concluded that, on the basis of clinical manifestation, pathogenesis and complication cervical spondylosis can be correlated with Prishta (back of neck) Graha (stiffness or obstruction) and the Ayurvedic treatment modalities can be used as an effective management in cervical spondylosis.

Keywords: Prishtagraha, cervical spondylosis, Ayurvedic management

Introduction

Cervical spondylosis, Characterized by neck pain, radiating to the shoulders, arms or head, so that person is unable to perform normal routine work. Ageing is the major risk factor that contributes to the onset of cervical spondylosis, but now days it is also encountered in young and middle age population. The prevalence of cervical spondylosis is 13.76% in India. In the classical Ayurvedic texts the disease Prishtagraha is characterized by Graha in Prishta Pradesha, which is similar to cervical spondylosis. Erroneous dietary habits and irregular life style is responsible for early degenerative changes and play a vital role in the manifestation of such degenerative disorder. In the management of such condition, modern medicine has limited conservative and surgical procedures. The use of analgesic for subsiding the pain, anticonvulsant drugs, steroid to reduce inflammation and muscle relaxants which provide only temporary symptomatic relief and many times have hazardous side effects. However, there is need to explore the Ayurvedic perspective of cervical spondylosis by which we can cure and prevent this disease. Ayurveda treatment offers holistic approach to cure and prevent this disease, which needs further scientific validation.

Ayurveda Disease Review

The detailed description regarding the Prishtagraha is not available as a separate disease entity in any of the classical Ayurvedic texts. Prishtagraha comes under the eight types of Nanatmaja Vata Vyadhies [1].

Definition of Prishtagraha

The Sanskrit word Prishta Graha is made out of 2 words, i.e. Prishta and Graha.

- Prishta: The meaning of term “Prishta” is the back part of neck, the tendon of the Trapezius muscle, the nape of the neck.
• **Graha:** Monnier Williams’ Sanskrit-English Dictionary: *Graha* means seizing, holding, catching or obstruction.

In Ayurvedic classics this word has been used in different contexts, but here the meaning can be derived as the restriction of movements (stiffness/seizing). Hence in this context *Pristha Graha* denotes a group of symptoms characterized by the restriction of movements of *Pristha* (Cervical) region in which pain would be a main feature as *Graha* alternatively means pain as restriction is said to produce pain in the particular region.

**Nidana (Causative Factor)**

Specific *Nidanas of Pristhagraha* has not been mentioned anywhere in the classics. Hence the factors, which are responsible for the vitiation of *Vayu* can be considered as the *Nidana of Pristhagraha* also. The *Vata Prakopaka Nidana described by various authors, are as below:

| Table 1: Aharaja Nidana |
|------------------------|
| **Nidana** | C.S. | S.S. | A.H. | H.S. | M.N. | Y.R. | B.P. |
|-----------|------|------|------|------|------|------|------|
| Ruksha    | +    | +    | +    | +    | +    | +    | +    |
| Sheeta    | +    | +    | -    | +    | +    | +    | +    |
| Alpa      | +    | -    | +    | -    | +    | +    | +    |
| Laghu     | +    | -    | -    | -    | +    | +    | +    |
| Kashaya   | -    | +    | +    | -    | -    | -    | +    |
| Katu      | -    | +    | -    | +    | -    | -    | +    |
| Tikta     | -    | +    | +    | -    | -    | -    | +    |
| Masoora   | -    | +    | -    | -    | -    | -    | -    |
| Kalaya    | -    | +    | -    | +    | -    | -    | -    |
| Nishpava  | -    | +    | -    | -    | -    | -    | -    |
| Rajamasha | -    | +    | -    | -    | -    | -    | -    |
| Neevara   | -    | +    | -    | -    | -    | -    | -    |
| Raktashali| -    | +    | -    | -    | -    | -    | -    |
| Koradoosha| -    | +    | -    | +    | -    | -    | -    |
| Shyama    | -    | +    | -    | +    | -    | -    | -    |
| Yavagu    | -    | -    | -    | +    | -    | -    | -    |
| Mudga     | -    | +    | -    | -    | -    | -    | -    |
| Aadhaki   | -    | +    | -    | -    | -    | -    | -    |
| Harenu    | -    | +    | -    | -    | -    | -    | -    |
| Kalinga   | -    | -    | -    | -    | -    | -    | -    |
| Vastuka   | -    | -    | -    | +    | -    | -    | -    |
| Palandu   | -    | -    | -    | +    | -    | -    | -    |
| Gunjana   | -    | -    | -    | +    | -    | -    | -    |
| Kandashaka| -    | -    | -    | +    | -    | -    | -    |
| Shushkakashaka | -  | -  | -    | +    | -    | -    | -    |
| Vallura   | -    | +    | -    | -    | -    | -    | -    |
| Varaka    | -    | +    | -    | -    | -    | -    | -    |

| Table 2: Viharaja Nidana |
|--------------------------|
| **Nidana** | C.S. | S.S. | A.H. | H.S. | M.N. | Y.R. | B.P. |
|-------------|------|------|------|------|------|------|------|
| Vishamasana | +    | +    | -    | -    | -    | +    | -    |
| Atibhukta   | -    | -    | -    | -    | +    | -    | -    |
| Aghara      | -    | -    | -    | -    | +    | -    | -    |
| Abbojana    | -    | -    | +    | +    | -    | -    | -    |
| Langhana    | +    | -    | -    | -    | +    | -    | -    |
| Adhovatarodha| - | + | - | + | - | - | - |
| Mutvarodha  | -    | +    | -    | -    | -    | -    | -    |
| Pureesharodha| - | + | - | + | - | - | - |
| Nisha Jagaran | + | - | + | - | + | + | + |
| Ativayava   | +    | +    | +    | +    | +    | +    | -    |
| Ativyayama  | +    | +    | +    | +    | +    | +    | -    |
| Atiadiiva   | +    | +    | -    | +    | -    | +    | -    |
| Atibhashana | -    | -    | +    | +    | -    | -    | -    |
| Ashwayana   | +    | -    | -    | +    | +    | +    | -    |
| Ushtrayana  | +    | -    | -    | +    | +    | -    | -    |
| Rathayana   | -    | -    | -    | +    | -    | -    | -    |
| Gajayanaa   | +    | -    | -    | -    | +    | +    | -    |
| Plavana     | +    | -    | -    | -    | +    | +    | +    |
| Aticheshta  | +    | -    | -    | -    | +    | +    | -    |
| Vegadharana | +    | +    | +    | -    | +    | +    | -    |
| Sheeghrayana| +    | -    | -    | +    | +    | +    | -    |
| Abhighta    | +    | +    | -    | -    | +    | +    | +    |

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Table 3: Manasika Nidana

| Nidana    | C.S. | S.S. | A.H. | H.S. | M.N. | Y.R. | B.P. |
|-----------|------|------|------|------|------|------|------|
| Shoka     | +    | -    | +    | -    | +    | +    | +    |
| Chinta    | +    | -    | +    | -    | +    | +    | +    |
| Dukha     | +    | -    | -    | -    | -    | -    | -    |
| Krodha    | +    | -    | -    | -    | -    | +    | -    |
| Bhaya     | +    | -    | -    | +    | -    | -    | -    |

Table 4: Panchakarma Apacharaja

| Nidana      | C.S. | S.S. | A.H. | H.S. | M.N. | Y.R. | B.P. |
|-------------|------|------|------|------|------|------|------|
| Vishama Upchara | +    | -    | -    | -    | +    | -    | -    |
| Asamyaka Vamana Karma | -    | -    | -    | -    | -    | +    | -    |
| Asamyaka Virechana Karma | -    | -    | -    | -    | -    | +    | -    |
| Kriyatiyoga | -    | -    | +    | -    | -    | -    | -    |

Table 5: Kalaja Nidana

| Nidana      | C.S. | S.S. | A.H. | H.S. | M.N. | Y.R. | B.P. |
|-------------|------|------|------|------|------|------|------|
| Sheeta      | -    | -    | -    | +    | -    | -    | -    |
| Durdina     | -    | -    | -    | +    | -    | -    | -    |
| Aparahine   | -    | -    | -    | +    | -    | -    | -    |
| Varsharitu  | -    | -    | -    | -    | +    | -    | -    |
| Greeshmaritu| -    | +    | -    | -    | -    | -    | -    |
| Jara        | +    | -    | -    | -    | -    | +    | -    |

Table 6: Anya Nidana (other causes)

| Nidana      | C.S. | S.S. | A.H. | H.S. | M.N. | Y.R. | B.P. |
|-------------|------|------|------|------|------|------|------|
| Doshra Sarvana | +    | -    | -    | -    | -    | -    | +    |
| Asrika Sarvana | +    | -    | -    | -    | +    | +    | +    |
| Dhatu Kshaya | +    | -    | -    | -    | +    | +    | +    |
| Marmaghata  | +    | -    | -    | -    | +    | +    | +    |
| Aama Doshra | +    | -    | -    | -    | +    | +    | +    |
| Roga Atikarshana | +    | -    | -    | -    | +    | +    | +    |

C.S. - Charaka Samhita, S.S. - Sushruta Samhita, A.H. - Astanga Hridaya, H.S. - Hareeta Samhita, Y.R. - Yoga Ratnakara, B.P. - Bhava Prakasha.

**Purvarupa**

Purvarupa indicates a disease which is going to happen in the future. The Purvarupa manifests in the Sthanasanshraya Avastha of Shadkriyakala. There is no separate explanation in classics about Purvarupa of Pristhagraha. Charaka stated that Purvarupa of Vatavyadhi is “Aayaktam Lakshanam Tesham Purvarupam Iti Smritam” [8]. Commentator Vijayarakshita explain the word “Ayyakta” is as “Na Ati Abhiivyakta” means the word Ayyakta as the symptoms which are not manifested clearly [9]. Hence mild of occasional symptoms prior to the manifestation of disease Pristhagraha may be taken as Purvarupa.

**Rupa (symptomatology)**

When the symptoms are manifested completely in that stage is termed as the Rupa. Rupa is the fifth stage i.e. Vyakti Avastha which occurs after Sthanasamsraya Avastha. Some of the general symptoms of Vata Vyadhi are similar to the sign and symptoms of Pristhagraha (Cervical spondylosis) these are; Sankoocha, Parvana Stambha, Gatra Suptata, Greeva Hundanam, Pani-Pristha-Shirograha.

**Samprapti**

- The way in which the Doshas gets vitiated and the course it follows for the manifestation of disease is called Samprapti. No specific Samprapti has been explained for Pristhagraha. So the general Samprapti of Vatavyadhi can be considered.
- Acharya Charaka has mentioned that Vata Prakopa Nidana Sevana, Vata Prakopa and this Prakupta Vata gets accumulated in Rikta Srotas and gives rise to various Sarvanga and Ekang Vyadhi (Ch.Chi. 28/ 18-19) [10]. Acharya Vagbhatta has also stated that the vitiated Vata circulate through the empty channels in the body (Rikta Srotas) and fills them [11], (AH, Ni. 15/6).
- The vitiated Vata also causes Shleshaka Kapha Kshaya due to Ruksha and Khara Guna. Here the Ruksha and Khara Guna of Vata are considered as antagonising factors for Shleshaka Kapha which eventually results in diminution of Shleshaka Kapha which is the binding force between the joints and ultimately leads to the Kshaya in Dhatus. Because of Dhatukshaya, vitiated Vata flows out of its Ashaya to circulate in the entire body and settles down in the Asthi.
- Whenever the Vyana Vayu gets vitiated, then simultaneously Khavaigunya takes place at Asthi Dhatu because of its higher affinity towards Astithatu due to Ashraya- Ashreyee Bhava leads to Astithava and Majjavaha Srotodushhti which results in Pristhagraha.
The main *Samprapti Ghatakas* involved in the disease are described here:

| Dosha         | Vyan Vayu, Shleshak Kapha |
|---------------|---------------------------|
| Dushya        | Rasa, Mamsa, Meda, Asthi, Majja |
| Srotasa       | Rasavaha, Asthivaha, Majjaha |
| Srotodushthi  | Sanga                     |
| Roga Marga    | Marmasthi Sandhi           |
| Adhisthana    | Asthi – Sandhi             |
| Udbhavasthana | Amapakvashaya              |
| Agni          | Jathragni Mandhya          |

**Sadhya – Asadhyaya**

*Pristhagraha* is one of the *Nanatmaja Vatavyadi*. In *Pristhagraha* *Samprapti* occurs in *Gambhira Dhatu* and *Madhyama Roga Marga*. The disease located in *Marma* and *Madhyama Rogamarga* is *Kasthasadhya*. Thus, considering the above facts *Pristhagraha* is said to be a *Kricchasadhya* (difficult to treat).

**Pathya – Apathya**

Specific *Pathya* and *Apathya* of *Pristhagraha* are not mentioned. But as being a *Vatavyadhi*, we have to adopt same.

### Table 7: Samprapti Ghatakas

| Varga          | Dravya                                      |
|----------------|---------------------------------------------|
| Annavarga      | Godhuma, Masha, Kulatttha, Raktashali       |
| Dugdhwarga     | Gau-Aja Dugdha, Ghrita, Kilatam             |
| Phalavarga     | Draksha, Madhuka, Badara, Amra              |
| Jalavarga      | Ushna Jala, Shritishtala Jala               |
| Madyavarga     | Sura, Surasava, Amlakanjika, Madira         |
| Mamsavarga     | Kukkuta, Tittira, Nakra, Mayura, Chataka    |
| Mutravarga     | Go, Avika, Hasti Mutra, Ashva               |
| Rasavarga      | Madhura, Amla, Lavana                      |
| Shakavarga     | Patola, Rason, Shigru, Jivanti              |
| Snehabvarga    | Ghrita, Taila, Vasa, Majja                  |

### Table 8: Pathya Ahara in Pristhagraha

| Varga          | Dravya                                      |
|----------------|---------------------------------------------|
| Annavarga      | Yava, Kodrava, Shyamaka, Chanaka, Kalaya    |
| Dugdhwarga     | Gadarbha Dugdha                             |
| Ikshuvarga     | Madhu                                       |
| Jalavarga      | Nadi-samudra, Shita Jala, Dushita Jala, Tadagasya jalal |
| Madyavarga     | Navamadya, Atimadyapana                      |
| Mamsavarga     | Kapota, Paravat, Kulenga, Shaka, Shushka Mamsa |
| Mutravarga     | Ajamutram                                   |
| Phalavarga     | Jambu, Kasheruka, Kramuka, Lavali, Parpataki Phala |
| Rasavarga      | Katu, Tikta, Kasaya Rasa                    |
| Shakavarga     | Kumuda, Kamalanala, Palakya, Udumbara       |

### Table 9: Apathya Ahara In Pristhagraha

**Chikitsa (Treatment)**

- **General Treatment of Vatavyadhi**
  1. The term *Chikitsa* is derived from the root “Kit Rogapanayane” i.e., to adopt measures against the disease (Shabdastom Mahanidhi). *Rukpratikriya*, i.e., counteraction of *Ruja* is *Chikitsa*.
  2. *Chikitsa* aims not only at the radical removal of the disease but also guides for the restoration and maintenance of normal health.
  3. According to *Acharya Sushruta* *chikitsa* is defined as the removal of the causative factors and according to *Acharya Vagbhata* is *chikitsa*.
  4. As *Pristhagraha* is considered under *Vata Vyadhi*, it is important that aware of the line of treatment to be adopted generally in the manifestation of *Vata Vyadhi*.
  5. *Samanya Vatopakramas* that are explained as *Vata Shamaka Ahara, Snehana, Swedana, Mrudu Samshodhana, Bahir Parimarjana* and variety of *Basti Upakramas* are main line of treatment to pacify the *Vata*.

**Snehana (oleation)**

When vitiation of *Vata* occurs without any *Upstambha* or *Avarana*, it should be treated at first with the *Sneha dravyas* like *Grita, Taila, Vasa* and *Majja*. *Anuvasana Basti* with *Amla* and *Lavana Rasa*, *Sneha Nasyas* and *Brihana Ahara* and *Vihara* are also come under the *Snehana*.

**Swedana (hot fomentation)**

After proper *Abhyanga*, the patient may be subjected to the *Swedana* therapy like *Nadi Sveda, Samkara Sveda, Prastara Sveda* etc. it is also useful in *Toda* (pricking pain), *Harsha* (tingling sensation), *Ruka* (ache), *Shotha* (oedema), *Stambha* (stiffness), *Anga graham* (spasticity).

The *Snehana* and *Swedana* procedures should be administered repeatedly as a result of which the disorders of *Vata* may not get lodged in the *Kośtha* softened by *Snehana* procedure.
Mridu Samshodhana - Virechana (mild therapeutic purgation)

Mridu Virechana must be given in Vata Vyadhis which are not subsided by the Snehana and Swedana. For this purpose the patient may take the medicated Ghee prepared with Tilvaka or Satala or oral administration of ‘Eranda Sneha’ along with Godugha (cow milk) for the Virechana purpose. This will help in both Vata Anulomana as well as elimination of morbid Doshas.

Basti (therapeutic enema)

Basti is considered to be the best treatment modality, because of its wide applicability and multidimensional therapeutic approach towards the Vata Dosha, also effective in conditions where in other Doshas are involved. The Basti is termed as Ardh Chikitsa or Sampurna Chikitsa. The desired effects may be produced by modifying the basic constituents of Basti like Kashaya and Kalka drugs as per the need. Lekhana, Brimhana, Grahi, Shodhana and many other specific Bastis are mentioned. Acharya Charaka, while explaining the treatment for Asthipradoshaja Vikaras, has mentioned Panchakarma in which importance is given to Basti, containing Tikta dravyas (bitter drugs), Khseera (milk) and Sarpi (clarified butter).

Nasya karma (nasal drops)

Nasya karma is one of the therapeutic procedures of Urdhvajatragata Vikaras, wherein the drug is administered through the nasal route. According to Acharya Charaka Nasya Karma has been indicated in all types of Vata Vyadhis: “Navanerdhumapanescha Sarvanevapadayanita”.

Discussion

It covers the Ayurvedic review and other Therapeutic Procedures, recommended to manage the Vatavyadhi (Prishthagraha). In Ayurvedic review, Nidana Panchaka, Sadhya-Asadhyata and Chikitsa of the disease have been described. As Prishthagraha is not mentioned as a separate disease so the Nidanas mentioned for Vata-Vyadhi and Vata Prakopa are incorporated as causative factors of Prishthagraha (Cervical Spondylosis), though separate Nidanas are not mentioned. In Ayurvedic management Snehan Karma produced Snigdha, Mardava and Vishyand in neck region. The Swedan reduces Kapha and Ama that responsible for spasticity in the neck in cervical spondylosis. Vata manifestation vitiates due to Sheet Guna, in such case Swedan showing hot potency pacify the Vata manifestation. Prishthabasisit relieves in stiffness and pain of neck region. The Nasya Karma pacifies the mainly Vata Dosha and associated Kapha Dosha through its Brimhana nature and work as an effective treatment in cervical spondylosis

Conclusion

On the basis of clinical manifestation, pathogenesis and complication, cervical spondylosis can be correlated with Prisha Graha. The Prishthagraha comes under the eighty types of Nanatmaja Vatu Vyadhies. Vata provoking factors are accepted as Nidana. Vyana Vayu and Shleshaka Kapha are essential component for pathogenesis of Prishthagraha (Cervical Spondylosis). The Ayurvedic treatment modalities can be used as an effective management in cervical spondylosis.

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