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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 *Prishtha* (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 *Prishthagraha* is characterized by *Graha* in *Prishtha Pradesh*, 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 *Prishthagraha* is not available as a separate disease entity in any of the classical *Ayurvedic* texts. *Prishthagraha* comes under the eighty types of *Nanatmaja Vata Vyadhies* [1].

Definition of Prishthagraha

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

- **Prishtha:** The meaning of term “*Prishtha*” 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	-	+	+	-	-	-	+
Masoorā	-	+	-	+	-	-	-
Kalaya	-	+	-	+	-	-	-
Nishpava	-	+	-	+	-	-	-
Rajamasha	-	+	-	+	-	-	-
Neevara	-	+	-	+	-	-	-
Raktashali	-	+	-	+	-	-	-
Koradoosha	-	+	-	+	-	-	-
Shyama	-	+	-	+	-	-	-
Yavagu	-	-	-	+	-	-	-
Mudga	-	+	-	+	-	-	-
Aadhaki	-	+	-	+	-	-	-
Harenu	-	+	-	+	-	-	-
Kalinga	-	-	-	+	-	-	-
Vastuka	-	-	-	+	-	-	-
Palandu	-	-	-	+	-	-	-
Gunjana	-	-	-	+	-	-	-
Kandashaka	-	-	-	+	-	-	-
Shushkashaka	-	-	-	+	-	-	-
Vallura	-	+	-	-	-	-	-
Varaka	-	+	-	-	-	-	-

Table 2: Viharaja Nidana

Nidana	C.S.	S.S.	A.H.	H.S.	M.N.	Y.R.	B.P.
Vishamasana	+	+	-	-	+	+	-
Atibhukta	-	-	-	+	-	-	-
Kshara	-	-	-	+	-	-	-
Abhojana	-	-	+	-	-	-	-
Langhana	+	-	-	-	-	+	-
Adhovatarodha	-	+	-	+	-	-	-
Mutrarodha	-	+	-	+	-	-	-
Pureesharodha	-	+	-	+	-	-	-
Nisha Jagarana	+	-	+	+	+	+	+
Ativyavaya	+	+	+	+	+	+	-
Ativyayama	+	+	+	+	+	+	-
Atiadhva	+	+	-	+	+	+	-
Atibhashana	-	-	+	+	-	-	-
Ashwayana	+	-	-	+	+	+	-
Ushtrayana	+	-	-	+	+	+	-
Rathayana	-	-	-	+	-	-	-
Gajayanaa	+	-	-	-	+	+	-
Plavana	+	-	-	-	+	+	+
Aticheshta	+	-	-	-	+	+	-
Vegadharana	+	+	+	-	+	+	-
Sheeghrayana	+	-	-	-	+	+	-
Abhigata	+	+	-	-	+	+	+

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	-	-	-	+	-	-	-
Aparahne	-	-	-	+	-	-	-
Varsharitu	-	-	-	-	-	+	-
Greeshmaritu	-	+	-	-	-	-	-
Jara	+	-	-	-	-	+	-

Table 6: Anya Nidana (other causes)

Nidana	C.S.	S.S.	A.H.	H.S.	M.N.	Y.R.	B.P.
Dosha Sravana	+	-	-	-	-	-	+
Asrika Sravana	+	-	-	-	+	+	+
Dhatu Kshaya	+	-	-	-	+	+	+
Marmaghata	+	-	-	-	+	+	+
Aama Dosha	+	-	-	-	+	+	+
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 “*Avyaktam Lakshanam Tesham Purvarupam Iti Smritam*” [8]. Commentator *Vijayarakhita* explain the word “*Avyakta*” is as “*Na Ati Abhivyakta*” means the word *Avyakta* 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; *Sankocha*, *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 *Prakupita Vata* gets accumulated in *Rikta Srotas* and gives rise to various *Sarvanga* and *Ekanag 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 *Asthidhatu* due to *Ashraya- Ashryee Bhava* leads to *Asthivaha* and *Majjavaha Srotodushti* which results in *Pristhagraha*.

Table 7: Samprapti Ghataka

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, Majjavaha
Srotodushti	Sanga
Roga Marga	Marmasthi Sandhi
Adhithana	Asthi – Sandhi
Udbhavasthana	Amapakvashaya
Agni	Jathragni Mandhya

Sadhya – Asadhyata

Pristhagraha is one of the *Nanatmaja Vatavyadhi*. In *Pristhagraha Samprapti* occurs in *Gambhira Dhatus* 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*

Vyadhi (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 8: Pathya Ahara in Pristhagraha ^[14]

Varga	Dravya
Annavarga	Godhuma, Masha, Kulattha, Raktashali
Dugdhavarga	Gau-Aja Dugdha, Ghrita, Kilatam.
Phalavarga	Draksha, Madhuka, Badara, Amra
Jalavarga	Ushna Jala, Shritashita 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
Snehavarga	Ghrita, Taila, Vasa, Majja,

Table 9: Apathya Ahara In Pristhagraha ^[15]

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

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* as the disintegration of *Samprapti*.
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 *Kostha* softened by *Snehana* procedure.

Mridu Samshodhana - Virechana (mild therapeutic purgation)

Mrudu Virechana must be given in *Vata Vyadhies* 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 *Godugdha* (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 *Ardha 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 *Urdhvajatrugata Vikaras*, wherein the drug is administered through the nasal route. According to *Acharya Charaka Nasya Karma* has been indicated in all types of *Vata Vyadhies*; "*Navanerdhumapanescha Sarvanevopapadayeta*".

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 *Snigdhta*, *Mardavta* and *Vishyandan* 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. *Prishthabasti* 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 *Prishtha Graha*. The *Prishthagraha* comes under the eighty types of *Nanatmaja Vata 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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