



# International Journal of Ayurveda and Pharmaceutical Chemistry

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*Volume 7 Issue 2 2017*

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## Analytical Study of Etiological factors of *Manyashool*

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### ABSTRACT

**Introduction:** Neck pain affects about 330 million people globally as of 2010 (4.9% of the population). It is more common in women (5.7%) than men (3.9%). Neck pain may come from any of the structure in the neck including: vascular, nerve, airway, digestive and musculature/skeletal or be referred from other areas of body. Modern medical science provides various treatment modalities including medicine, physiotherapy and surgery but none of them is satisfactorily fruitful. According to *Ayurveda*, *nidan parivarjan* (avoiding etiological factors) is first line of treatment. So this study aims to find out the various etiological factors responsible for *manyashool* to tackle with the drastic problem of neck pain which is the silent enemy of the physical ability to humanity.

**Aims & objectives:** To study the Etiological factors of *manyashool* according to the classical texts and modern lifestyle.

**Study design:** Cross Sectional Study.

**Sampling technique:** Simple Random Sampling

**Study subject and technique:** Study was approved from the Institutional Ethics Committee. Informed consent was taken prior to data collection. Data were collected from 100 subjects fulfilling inclusion criteria.

**Conclusions:** The study shows that neck pain is affected by individual variables and work related variables.

### KEYWORDS

*Neck Pain, Manyashool, Aetiological factors*



**Greentree Group**

Received 01/08/17 Accepted 20/08/17 Published 10/09/17



## INTRODUCTION

*Ayurveda*, the science of life, *upaveda* of *Atharvaveda*, as is known has its deep roots in mankind since time immemorial. It emphasizes on the maintenance, promotion of health and curing the diseases<sup>1</sup>. In today's frenetic era, *manyashool* (neck pain) is a burning problem which pays for the major visits to the physicians with two thirds of the population experiencing it at some point of their lives<sup>2</sup>. About 330 million people globally are affected by neck pain as of 2010 (4.9% of the population), being more common in women (5.7%) than in men (3.9)<sup>3</sup>. The drastic change in the lifestyle, eating & sleeping habits, nature of work, postural defects & lack of exercise, accounts for the increased prevalence of *manyashool*. Though *manyashool* seems to be a general symptom, holds a solid niche as is manifested in many local & systemic disorders. Despite the fact that major population suffer from *manyashool* it still remains to be the under diagnosed & the neglected one. The depth of *manyashool* needs to be understood as it deprives an individual from executing his daily routine in latter stages or in acute condition in some cases. Neck pain, although felt in the neck, can be caused by numerous other spinal problems. Neck pain may arise due to

muscular tightness in both the neck and the upper back, or pinching of the nerves emanating from the cervical vertebrae. Neck pain may come from any of the structure in the neck including: vascular, nerve, airway, digestive and musculature/ skeletal or be referred from other areas of body<sup>4</sup>.

## AIM

To study the etiological factors of *manyashool*, according to the classical texts and modern lifestyle.

## MATERIALS

- 1) **Literature review:** Conceptual review of the subject as per ancient and current theories from the classical and modern texts was taken into consideration.
- 2) **Instruments:**
  - a) Goniometer to measure range of movement.
- 3) **Methods:**
  - a) **Study design:**
    - i) Sample size: Total 100 patients of *manyashool* were selected randomly, irrespective of the duration of their complaints.
    - ii) Selection of the patient: The patients of *manyashool* coming to the L.K.R.A.M.C hospital, Gadhinglaj, Maharashtra were



selected randomly according to the inclusive and exclusive criteria.

iii) Inclusion criteria:

- (1) Age between 35 to 65 years.
- (2) Patients of either sex.
- (3) Rheumatoid arthritis
- (4) Ankylosing spondylitis
- (5) Osteoarthritis of cervical spine
- (6) Prolapsed cervical disc
- (7) Cervical spondylolisthesis

iv) Exclusion criteria:

- (1) Age below 35 years and above 65 years
- (2) Neoplastic growths
- (3) Congenital disorders
- (4) Cervical rib derangements
- (5) Whiplash injury
- (6) T.B of the cervical spine
- (7) Pyogenic infections of the cervical spine
- (8) Other systemic, endocrinal disorders.

v) History taking of the patient: Detail history of the patient of *manyashool* was taken including his/her diet and habitual history in detail as per the case record *performa*.

vi) Assessment of *manyashool* in the patient:

a. Subjective criteria:

➤ Range of movements and pain (cervical region).

➤ Muscle power grade i.e., Neurological examination of cervical spine-Motor.

➤ Neck pain disability index<sup>5</sup>:

The Neck pain disability index was calculated in terms of percentage.

b. Objective criteria:

1. X-ray
2. MRI (wherever necessary)

vii) Analysis of the data and conclusion:

The collected information through the case record *performa* was carefully studied to extract the most reasonable *nidan* for *manyashool utpatti* under *ahara*, *vihar*, *manasik* and *agantu* headings.

## LITERATURE REVIEW

*Manyashool* as a separate disease isn't mentioned in the classics but is expressed as a symptom in many diseases where *vata* plays an important role in *samprapti*. Even though *manyashool* is a symptom it is the uneasiness caused by the pain that brings the patient to the physician.

*Nidan* for *manyashool*:

In general all the diseases either of *sharira* or *mana* are caused by *mithyayoga*, *ayoga* or *atiyoga* of *kaal*, *buddhi* and *indriya*. The general *nidana* (Etiology) for *vata vyadhi*



are mentioned in the chapter of the following texts.

- a) *Charaka Samhita*<sup>6</sup> *chikitsasthana* chp.28
  - b) *Sushruta Samhita*<sup>7</sup> *nidanasthana* chp.1
  - c) *Astanga Hridaya*<sup>8</sup> *nidanasthan* chp.15
  - d) *Astanga Samgraha*<sup>9</sup> *nidanasthan* chp.15
  - e) *Harita Samhita*<sup>10</sup> *chikitsasthan* chp.5
  - g) *Bhavaprakasha*<sup>11</sup> *uttarakhandachp.* 24
- Charaka* (Ch.Chi. 28/15-17) and *Bhavaprakasha* (B.P.Ut.24 /1-2) have clearly mentioned the causative factors of *vata vyadhi*, but in *Sushruta Samhita*, *Astanga Sangraha* and *Astanga Hridaya* etc. the causes of *vata vyadhi* have not been clearly described. However, in these texts the causative factors for *prakopa* of *vata dosha* are available (S.Su. 21/19,20; S.Ni. 1/67,68,79; A.S.Ni.15/31,34,41; A.H.Ni.1/14,15; A.H.Ni. 15/29,32,33,47). In addition to this, in *Charaka Samhita*,

*Astanga Sangraha* and *Ashtanga Hridaya*, the specific causes of *vata vyadhi* i.e. *dhatukshaya* and *avarana* have also been mentioned (Ch.Chi. 28/58; A.S.Ni. 15/7, 8; A.H.Ni. 15/5,6).

All the etiological factors given, either of *vatavyadhi* or *vataprakopa* in the *ayurvedic* texts have been reviewed and reclassified into four group viz.-

- i. *Aharatah* (dietetic factors)
- ii. *Viharatah* (regimen factors)
- iii. *Agantuka* (external factors) and
- iv. *Anyahetutah* (miscellaneous factors)

These are presented in the table below with a brief description of these four groups is being given here separately as under:

- a) AHARATAH – The causative dietetic factors included under this group have been again subdivided into the following 8 groups. Table.1.

**Table 1**“*Aharataha nidan for vata vyadhi or vata prakopa*”

CAUSES	Ch.S	S.S	A.S	A. H	B. P
❖ <b>AHARATAH</b> (Dietetic causes)					
A. <b>Dravyatah (Substantial)</b>					
1. <i>Adhaki</i> ( <i>Cajanus cajan</i> )	-	+	-	-	-
2. <i>Bisa</i> ( <i>Nelumbuo nucifera</i> )	-	+	+	-	-
3. <i>Chanaka</i> ( <i>Cicer arietinum</i> )	-	-	+	-	-
4. <i>Chirbhata</i> ( <i>Cuccumsmelo</i> )	-	-	+	-	-
5. <i>Harenu</i> ( <i>Pisum sativum</i> )	-	+	-	-	-
6. <i>Jambava</i> ( <i>Eugenia jambolena</i> )	-	-	+	-	-
7. <i>Kalaya</i> ( <i>Lathyrus sativus</i> )	-	+	+	-	-
8. <i>Kalinga</i> ( <i>Holarrhena antidysenterica</i> )	-	-	+	-	-
9. <i>Kariya</i> ( <i>Capparis decidua</i> )	-	-	+	-	-
10. <i>Koradusha</i> ( <i>Paspalum scrobiculatum</i> )	-	+	-	-	-
11. <i>Masura</i> ( <i>Lens culinaris</i> )	-	+	-	-	-
12. <i>Mudga</i> ( <i>Phaseolus mungo</i> )	-	+	-	-	-
13. <i>Nishpava</i> ( <i>Dolichos lablab</i> )	-	+	-	-	-
14. <i>Neevara</i> ( <i>Hygroryza aristata</i> )	-	+	-	-	-
15. <i>Shaluka</i> ( <i>Nelumbium speciosum</i> )	-	-	+	-	-



16.	<i>Shushkashaka</i> (Dry vegetable)	-	+	-	-	-
17.	<i>Shyamaka</i> ( <i>Setariaitalica</i> )	-	+	-	-	-
18.	<i>Tinduka</i> ( <i>Diospyros tomentosa</i> )	-	-	+	-	-
19.	<i>Trunadhanya</i> (Grassy grain)	-	-	+	-	-
20.	<i>Tumba</i> ( <i>Lagenaria valgaris</i> )	-	-	+	-	-
21.	<i>Uddalaka</i> (A variety of <i>paspalum Scrobiculatum</i> )	-	+	-	-	-
22.	<i>Varaka</i> ( <i>Carthamus tinctorius</i> )	-	+	-	-	-
23.	<i>Virudhaka</i> (Germinated Seed)	-	-	+	-	-
<b>B. <i>Gunatah</i></b>						
1.	<i>Rukshanna</i> (ununctous diet)	+	+	+	+	+
2.	<i>Laghvanna</i> (light diet)	-	+	+	-	+
3.	<i>Gurvanna</i> (heavy diet)	-	-	+	+	-
4.	<i>Sheetanna</i> (cold diet)	+	-	+	-	-
<b>C. <i>Rasatah</i></b>						
1.	<i>Kashyanna</i> (astringent taste)	-	+	+	+	+
2.	<i>Katvanna</i> (acid taste)	-	+	+	+	+
3.	<i>Tiktanna</i> (Bitter taste)	-	+	+	+	+
<b>D. <i>Karmatah</i></b>						
1.	<i>Vishtambhi</i> (constipative diet)	-	-	+	-	-
<b>E. <i>Veeryatah</i></b>						
1.	<i>Sheeta</i> (cold)	-	-	-	-	-
<b>F. <i>Matratah</i></b>						
1.	<i>Abhojana</i> (fasting)	+	+	-	-	+
2.	<i>Alpasana/ Pramitasana</i> (dieting)	+	-	+	+	-
3.	<i>Vishmashana</i> (Taking unequal food)	-	+	-	-	-
<b>G. <i>Kalatah</i></b>						
1.	<i>Adhyashana</i> (eating before digestion of previous meal)	-	+	-	-	-
2.	<i>Jirnanta</i> (After digestion)	-	+	+	+	+
3.	<i>Kalatitaashana</i> (Taking food at improper time)	-	-	+	+	+

Ch.S = Charaksamhita, S.S = Sushrutsamhita, A.S = AstangaSamgraha, A.H= AstangaHriday, B.P = Bhavaprakash

1. *Dravyatah*: In this group all the dietetic articles responsible for *vata prakopa* have been included.

2. *Gunatah*: This group include the quality of dietetic articles like *ruksha*, *sheeta* etc. which lead to the *prakopa* of *vata*.

3. *Rasatah*: The various tastes of the dietetic articles, the excessive use of which lead to the *prakopa* of *vata* have been included in this group.

4. *Karmatah*: Excessive use of *vistambhi* foods may lead to the *prakopa* of *vata* and it has been included under this heading.

5. *Veeryatah*: For instance, the *sheeta veerya* articles cause the *prakopa* of *vata*.

6. *Matratah*: Eating less or fasting comes under this heading.

7. *Kalatah*: The *vata prakopa* occurs at the end of digestion. Eating before digestion of

the previous meal also leads to *vata prakopa*.

8. *Mithyopayogatah*: The violation of the rules likes not to drink water when thirsty or not to eat when hungry also lead to *vata prakopa*.

*VIHARATAH*– The causative factors related to the habit and regimen of the patient has also been subdivided into two groups viz., I. *Karmatah* II. *Kalatah*. Table.2.

**Table 2** “*Viharataha nidan for vata vyadhi or vata prakopa*”

CAUSES	Ch.S	S.S	A.S	A. H	B. P
❖ <i>VIHARATAH</i> (Regimen)					
A. <i>Karmatah</i>					
<i>Mithyayogatah</i>					
1. <i>Ashmabhramana</i> (whirling stone)	-	-	+	-	-
2. <i>Ashmachalana</i> (Shaking of stone)	-	-	+	-	-
3. <i>Ashmavikshepa</i> (Throwing of stone)	-	-	+	-	-
4. <i>Ashmotkshepa</i> (pulling down stone)	-	-	+	-	-
5. <i>Balavatvigraha</i> (Wrestling with superior healthy one)	-	+	+	-	-
6. <i>Bharaharana</i> (Head loading)	-	+	+	-	-
7. <i>Damyagajanigraha</i> (subduing untameable elephant,cow& horse)	-	-	+	-	-
8. <i>Divasvapna</i> (day sleep)	+	+	-	-	-
9. <i>Dukhasana</i> (uncomfortable sitting)	+	-	-	-	-
10. <i>Dukhashayya</i> (uncomfortable sleeping)	+	-	-	-	-
11. <i>Ghadhotsadana</i> (strong rubbing)	-	-	+	-	-
12. <i>Kashtabhramana</i> (whirling of wood)	-	-	+	-	-
13. <i>Kashtachalana</i> (shaking of wood)	-	-	+	-	-
14. <i>Kashtavikshepa</i> (throwing of wood)	-	-	+	-	-
15. <i>Kashtotkshepa</i> (pulling down wood)	-	-	+	-	-
16. <i>Lohabhramana</i> (whirling of metal)	-	-	+	-	-
17. <i>Lohachalana</i> (Shaking of metal)	-	-	+	-	-
18. <i>Lohavikshepa</i> (Throwing of metal)	-	-	+	-	-
19. <i>Lohotkshepa</i> (Pulling down metal)	-	-	+	-	-
20. <i>Paragatana</i> (Strike with others)	-	-	+	-	-
21. <i>Shilabhramana</i> (Whirling of rock)	-	-	+	-	-
22. <i>Shilachalana</i> (Shaking of rock)	-	-	+	-	-
23. <i>Shilavikshepa</i> (Throwing of rock)	-	-	+	-	-
24. <i>Shilotkshepa</i> (Pulling down rock)	-	-	+	-	-
25. <i>Vegadharana</i> (Voluntary suppression of natural urges)	+	+	+	+	+
26. <i>Vegaudeerana</i> (forceful drive of natural-Urges)	-	-	+	+	-
27. <i>Vishamopchara</i> (Abnormal gestures)	+	-	-	-	-
<i>Atiyogatah</i>					
1. <i>Atigamana</i> (excessive walking)	+	-	+	-	-
2. <i>Atihasya</i> (Loud laughing)	-	+	+	+	-
3. <i>Atijrambha</i> (Loud yawning)	-	+	-	-	-
4. <i>Atikharachapakarshana</i> (Violent stretching of the bow)	-	-	+	+	-



5.	<i>Atilanghana</i> (Leaping over ditch)	+	+	+	-	-
6.	<i>Atiplavana</i> (Excessive bounding)	+	+	-	-	-
7.	<i>Atiprabhashana</i> (Continuous talking)	-	-	+	+	-
8.	<i>Atipradhavana</i> (Excessive running)	+	+	-	-	-
9.	<i>Atiprajagarana</i> (Excessive awakening)	+	+	+	+	+
10.	<i>Atiprapatana</i> (Leaping from height)	-	+	-	-	-
11.	<i>Atiprapidanam</i> (Violent pressing blow)	-	+	-	-	-
12.	<i>Atipratarana</i> (Excessive swimming)	-	+	+	-	-
13.	<i>Atiraktamokshana</i> (Excessive Bloodletting)	-	-	-	-	+
14.	<i>Atisrama</i> (over exertion)	-	-	-	-	+
15.	<i>Atisthana</i> (standing for a long period)	+	+	-	-	-
16.	<i>Ativyayama</i> (Violent exercise)	+	+	+	+	+
17.	<i>Ativyavaya</i> (excessive sexual intercourse)	-	+	+	+	+
18.	<i>Atiadyayana</i> (excessive study)	-	+	+	-	-
19.	<i>Atyasana</i> (sitting for a long period)	-	+	-	-	-
20.	<i>Atyuchchabhashana</i> (speaking loudly)	-	-	-	+	-
21.	<i>Gajaticharya</i> (excessive riding on Elephant)	-	-	+	+	-
22.	<i>Kriyatiyoga</i> (excessive purification Therapy)	-	-	+	+	+
23.	<i>Padaticharya</i> (walking long distances)	-	+	-	-	-
24.	<i>Rathaticharya</i> (excessive riding on Chariot)	-	+	-	-	-
25.	<i>Turangaticharya</i> (excessive riding on Horse)	+	+	-	-	-

**B. Manasik**

1.	<i>Bhaya</i> (fear)	+	-	+	+	+
2.	<i>Chinta</i> (worry)	+	-	+	-	-
3.	<i>Krodha</i> (Anger)	-	-	-	-	-
4.	<i>Mada</i> (Intoxication)	+	-	-	+	-
5.	<i>Shoka</i> (Grief)	-	-	+	+	+
6.	<i>Utkantha</i> (Anxiety)	-	-	+	-	-

**C. Kalatah**

1.	<i>Abhra</i> ((cloudy season)	-	+	-	-	-
2.	<i>Aparahna</i> (evenning)	-	+	+	+	+
3.	<i>Apararatra</i> (the end of the night)	-	-	+	+	-
4.	<i>Grishma</i> (summer season)	-	-	+	+	-
5.	<i>Pravata</i> (windy day)	-	+	+	-	-
6.	<i>Shishira</i> (winter)	-	-	-	-	+
7.	<i>Sheetakala</i> (early winter)	-	+	-	-	+
8.	<i>Varsha</i> (rainy season)	+	+	+	-	+

b) AGANTUJATAH - External factors for e.g trauma leading to *Vata prakopa* have been under this heading. Table.3.

**Table 3** “*Agantuja nidan for vata vyadhi or vata prakopa*”

CAUSES	Ch.S	S.S	A.S	A. H	B. P
❖ <b>AGANTUJA</b>					
1. <i>Abhighata</i> (trauma)	+	-	-	-	-
2. <i>Gaja, Ustra, Ashvasighrayanapatamsana</i> (Falling from speedy, running elephant, camel and horse)	+	-	-	-	-

c) ANYAHETUTAH - All other causatives factors of the *Prakopa* of *Vata* which could not be included in any of above

classification have been presented under this heading. Table.4.



**Table 4** “Anyanidan for vata vyadhi or vata prakopa”

CAUSES	Ch.S	S.S	A.S	A. H	B. P
❖ <b>ANYAHETUTAH</b>					
1. <i>Ama</i> (undigested article)	+	-	-	-	+
2. <i>Asrukshaya</i> (loss of blood)	+	+	+	-	-
3. <i>Dhatukshaya</i> (loss of body elements)	+	-	-	-	-
4. <i>Doshakshaya</i> (loss of humors)	+	-	-	-	-
5. <i>Rogatikarshana</i> (emaciation due to disease)	+	-	-	-	-
6. <i>Gadakrutamamskshaya</i> (wasting due to disease)	-	-	-	-	+

### Causes of neck pain according to modern science<sup>12-15</sup>:

There are many causes of neck pain. Auto accidents are notorious for causing neck pain. Other causes include bad posture, stress, sports injuries and falls. Of all the causes of neck pain that are seen the most common of them all is bad posture. Many cases of bad posture are encouraged by computer use, texting, driving and watching television.

Common sources of neck pain include the facet joints in the neck that allow and guide the movement between the individual vertebra of the spine and the discs which act as the shock absorbers of your spine. In some cases the disc can become injured resulting in a herniation of the disc that puts pressure on one of the many nerves that exit between the vertebrae.

➤ Depending on the severity causes can be classified as:

a) Major and severe causes of neck pain (roughly in order of severity) include:

- Carotid artery dissection.

- Referred pain from acute coronary syndrome.

- Head and neck cancer.

- Infections: retropharyngeal abscess, epiglottitis etc.

- Spinal disc herniation – protruding or bulging discs, or if severe prolapse.

- Spondylosis- degenerative arthritis (osteoarthritis) and osteophytes

- Spinal stenosis – a narrowing of the spinal canal

- Inflammatory Diseases- Rheumatoid arthritis (RA), Ankylosing spondylitis.

- Cervical Disk Degeneration

b) The more common and mild to moderate neck pain causes include:

- Stress– physical and emotional stresses

- Prolonged postures– many people fall asleep on sofas and chairs and wake with sore necks

- Minor injuries and falls – car accidents, sporting events and day to day minor injuries

- Referred pain– mostly from upper back problems

- Over-use – muscular strain is one of the most common causes



- Whiplash
- Herniated disc
- Pinched nerve

## OBSERVATION AND RESULTS

1. **Age:** In the present study it was observed that 45 patients (45%) were in between 35 – 45 years, 42 patients (42%) were in between 45 – 55 years and 13 patients (13%) were of 55 – 65 years of Age group.

2. **Sex:** Majority of patients observed were Females i.e., 58 patients (58%) and 42 patients were Male (42%).

3. **Marital Status:** Maximum patients observed for the study were married i.e. 88 patients (88%), 11 patients were widow (11%) and only 1 patient (1%) was unmarried.

4. **Socio-Economic status:** In the present study maximum patients were observed of Middle class i.e. 57 patients (57%), while 38 patients (38%) were poor and 5 patients (5%) were rich.

5. **Occupation:** The patients from various occupations were observed in the study. Their duration and nature of working were also studied. Table.5, Table.6, Table.7.

**Table 5** “Occupation wise distribution of patients”

Sr.No	Occupation	No. of patients	%
1.	Farmer/ Labour	32	32%
2.	Teacher/Clerk/	25	25%

	Engineer		
3.	Shop keeper	05	05%
4.	Driver	04	04%
5.	Housewife	26	26%
6.	Others	08	08%

**Table 6** “Duration of work reported by Patients”

Sr.No.	Working hrs/day	No. of Patients	%
1.	Upto 6 hrs	34	34%
2.	6 to 8 hrs	49	49%
3.	More than 8 hrs	17	17%

**Table 7** “Nature of work reported by 100 Patients”

Sr. No.	Nature of work	No. of Patients	%
1.	Laborious ( <i>bharaharan</i> )	32	32%
2.	Sedimentary ( <i>atyasana,</i> <i>dukhasana</i> )	36	36%
3.	House wife (household work)	26	26%
4.	Driving/ travelling ( <i>rathayatra</i> )	6	6%

6. **SharirikaPrakriti:** *Vatapradhan* includes *vata- pittaja* and *vata- kaphaja prakruti*. *Pitta pradhan* includes *pitta- vataja* and *pitta- kaphaja prakruti*. And *Kapha pradhan* includes *kapha- vataja* and *kapha- pittaja prakruti*. Table. 8.

7. **Saara parikshan:** Table. 9, Table10.

**Table 8** “Observation of 100 patients according to *Prakruti*”

Sr.No.	<i>Prakruti</i>	No. of Patients	Percentage
1.	<i>Vatapradhan</i>	48	48%
2.	<i>Pitta pradhan</i>	38	38%
3.	<i>Kaphapradhan</i>	14	14%

**Table 9** “Observation of 100 patients according to *saaraparikshan*”

Sr.No.	<i>Saara</i>	No. of Patients	Percentage
1.	<i>Asaara</i>	36	36%



2.	<i>Madhyama</i>	64	64%
3.	<i>Pravara</i>	00	00%

**Table 10** “*AsthaSaara* Wise observation of 64 *madhyamsaara* Patients”

8. **Nidan:** Actual *Aharatah*, *Viharatha*, *Mansika* and *Agantu nidan* found in *manyashool* patients from analysis of questionnaire in their case record Performa. Table.11, Table.12, Table.13, Table.14.

**Table 11**“*Nidana* Reported by *Manyashool* Patients”

Sr.No.	<i>Nidan</i>	No. of Patients	Percentage
1.	<i>Nija</i>	80	80%
2.	<i>Agantuja</i>	20	20%

**Table 12**“*Aharatah* found in *Manyashool* Patients”

Sr.No.	<i>Aharatah</i>	No. of Patients	Percentage
<b><i>Gunatah</i></b>			
1.	<i>Ruksha</i>	52	52%
2.	<i>Sita</i>	7	7%
3.	<i>Laghu</i>	14	14%
4.	<i>Usna/ tikshna</i>	56	56%
5.	<i>Guru/ pichila/ snigdha</i>	23	23%
<b><i>Rasatah</i></b>			
1.	<i>Madhur</i>	46	46%
2.	<i>Amla</i>	12	12%
3.	<i>Lavana</i>	00	00%
4.	<i>Katu</i>	88	88%
5.	<i>Tikta</i>	06	06%
6.	<i>Kashay</i>	00	00%
<b><i>Habit</i></b>			
1.	<i>Vishamashan</i>	58	58%
2.	<i>Pramitashan/Up vasa</i>	22	22%

Sr.No.	<i>AsthaSaara</i>	No. of Patients	Percentage
1.	<i>Twak</i>	28	43.75%
2.	<i>Rakta</i>	25	39.06%
3.	<i>Mamsa</i>	23	35.94%

3.	<i>Kalatitabhojan</i>	37	37%
4.	<i>Viruddhashan</i>	26	26%
5.	<i>Adhyashan</i>	15	15%
6.	<i>Samashan</i>	20	20%

**Table 13** “*Viharatah* found in *Manyashool* Patients”

Sr.No.	<i>Vihar</i>	No. of Patients	Percentage
1.	<i>Ativyayam (&gt;2 hrs/day)</i>	02	02%
2.	<i>Atishrama (&gt;6 hrs/day)</i>	66	66%
3.	<i>Dukhasana /Atyasana</i>	62	62%
4.	<i>Dukhasayya</i>	13	13%
5.	<i>Vega dharana</i>	45	45%
6.	<i>Rathayatra (&gt;3hrs/day)</i>	17	17%
7.	<i>Bharaharan</i>	36	36%
8.	<i>Atiprajagara</i>	42	42%
9.	<i>Vishamupadhan</i>	06	06%
10.	<i>Divasvap</i>	26	26%
11.	<i>Sitavayusevan</i>	09	09%
12.	<i>Ativyavaya (&gt;4 times/wk)</i>	06	06%
13.	<i>Atiprabhasya</i>	05	05%
14.	<i>AtiVikshepan karma</i>	03	03%



**Table 14** “*Manasiknidana* found in *Manyashool* Patients”

Sr.No.	<i>Manasbhava</i>	No. of Patients	%
1.	<i>Chinta</i>	74	74%
2.	<i>Bhaya/ Shoka</i>	28	28%
3.	<i>Krodh</i>	56	56%

9. **Vyasana:** In the present study 67% patient didn't have any habits while remaining 33% patients had habits. Amongst patients having habits 45.45% patients had smoking habit, 84.85% have addiction of alcohol and 54.55% had tobacco addiction.

10. **Restricted Neck Movement:** 67% of the patients had restriction in flexion, 53% had restriction in extension, 48% faced restricted lateral flexion (on one side or either side) and 39% faced restricted lateral rotation (on one side or either side).

11. **Muscle Power:** in 85% of patients the muscle power was preserved to normal while 15% patients showed diminished muscle power.

12. **NPDI (Neck Pain Disability Index):** In the study maximum patients i.e. 58% showed Grade II disability, followed by 41% having Grade III disability, only 1% showed Grade I disability while Grade IV disability was seen in none.

13. **Radiological Findings:** 72% patients showed changes in radiological examination and 28% showed normal cervical spine.

## DISCUSSION

### ➤ Occupation:

- 32% of patients were farmers or labours doing laborious work of carrying heavy weights overhead and back and with prolonged hours of work. Farmers have to work in farm in a position where their neck remains in continuous flexion.

- 26% of patients were housewives who did household chores like washing utensils-clothes, cooking, cleaning roofs and floors. All these actions require flexion and/ or extension of neck for long periods of time exerting strain on neck.

- 25% of the patients were teachers/ clerks/ engineers/ tailors etc., doing sedimentary job. Their job requires them to sit continuously for hours. These patients often sit in improper posture causing strain on neck.

- 6% of the patients were involved in driving / travelling profession. Here the sitting posture and hours, jerks applied during journey, *ratrijagaran*, *vishamashana* act as the causative factors.

- It was also observed that maximum patients i.e., 49% worked for 6-8 hours/ day, followed by 34% patients working for 6 hours/day and 17% patients working for more than 8 hours/day.



➤ **Sannikrushta nidan:** *Dukhasana/ atyasana, dukhsayya, bharaharan, vishamupadhan, ativikshepan karma* are *sannikrushtanidana* for *manyashool*.

➤ **Viprkrushta nidan:** *Ativyayam, atishrama, vegadharan, rathayatra, atiprajagara, sitavayusevan, ativyavaya, atiprabhasya, katurasatmak, Madhurrasatmakahara and laghu, ruksha, sita, guru, snigdha, pichilahara, Vishamashan, kalatitabhojan, viruddhaashan* are all *viprkrushta nidan* for *manyashool*.

➤ **Pradhanik nidan:** *Abhighat* is *pradhanik hetu* and it causes sudden *prakopa of vata* and *rakta* and *khavaigunya* in *manyapradesh* leading to *manyashool*.

## CONCLUSION

Consideration of the whole literary study and results of the survey study suggest the following conclusions:

- *Manyashool* is more common in 35 years- 45 years age group.
- Farmers/ labours doing laborious work and carrying heavy weights overhead are more prone to get *manyashool*.
- Patients working for more than 6 hrs a day experienced neck pain more commonly than those who don't.

• *Dukhasana/ atyasana, bharaharan* and *abhighat* were found to be predominant causes.

• *Manyashool* is produced by *vatapradhan tridosha* and its *dushya* are *mamsa, meda, asthi, majja, sira, snayu, kandara* and *sandhi*.

• Due to *manyashool*, neck movements are restricted, flexion restriction being the most common.

• Majority of the patients approached hospital when they had Grade II disability i.e., high pain intensity with low disability.

• *Manyashool* is associated with narrow/ reduced intervertebral disc space, loss of normal curvature of cervical spine and osteophytic changes.

Thus this study makes it is obvious that neck pain can be avoided by taking preventive measures like proper sitting posture, proper food habits and healthy changes in lifestyle. Also when treating patients with neck pain, the above facts should be considered and line of treatment should be selected. For e.g in *manyashool* due to *dhatukshay* adding *rasayana chikitsa* can prove helpful.



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