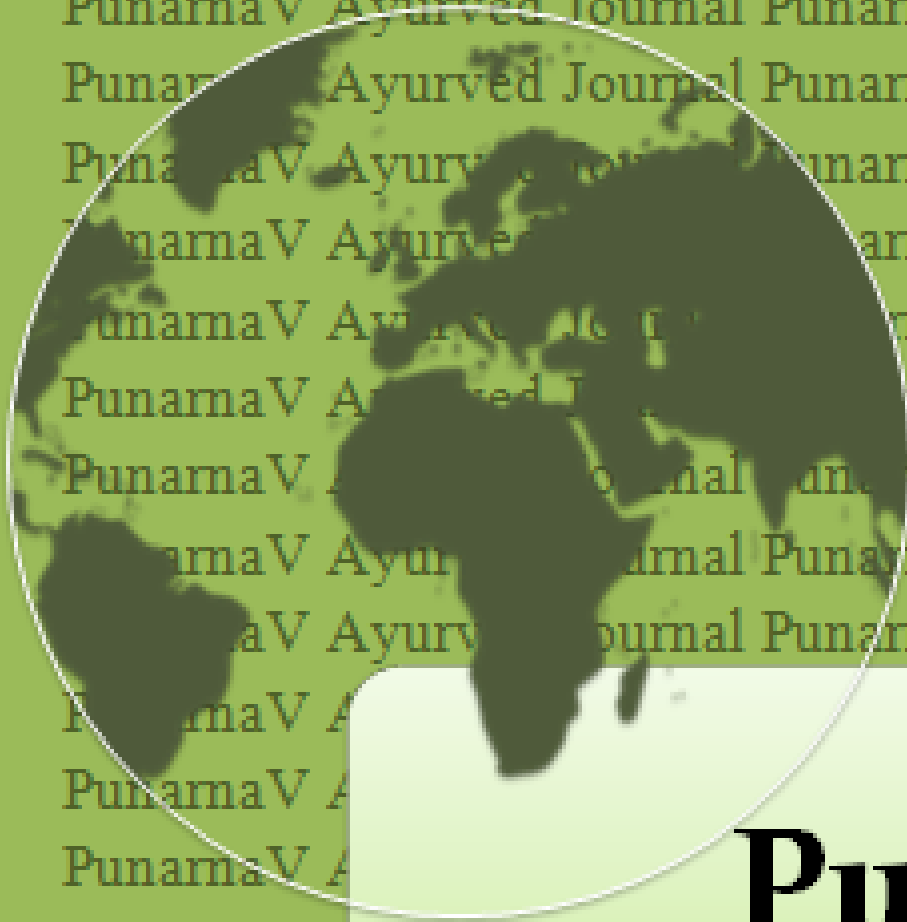


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# Punarna V

**TITLE**

**RISK FACTORS OF SPINAL DISORDER IN AYURVEDIC PERSPECTIVE – A  
RETROSPECTIVE PILOT STUDY**

**NISTANE RITA R, URKUDE GAURISHANKAR D.**

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## RISK FACTORS OF SPINAL DISORDER IN AYURVEDIC PERSPECTIVE – A RETROSPECTIVE PILOT STUDY

NISTANE RITA R.<sup>1</sup>, URKUDE GAURISHANKAR D.<sup>2</sup>

<sup>1,2</sup>P.G. (Ayu.) Scholar, Department of Swasthavritta, MUHS, Nashik University, Maharashtra, India.

### ABSTRACT:

*Ayurveda* is the science have two prior aims first of which is to prevent the disease and then to cure the disease. The modern time is the era of problems related to job nature, environment, daily regimen. These *Acharyas* have thought very well about the diseases. In present era the problems related to spine are on fire. *Ayurveda* believes that no disease can occur without cause (*Hetu*). So this pilot study was carried out to explore the probable risk factors involved in causing spinal consequences in *Ayurvedic* perspective. Aim of this study was to find out the probable risk factors (*Hetus*) of spinal disorders in *Ayurvedic* perspective. It was a (pilot study) observational, analytical, retrospective study. Patients having the x-rays/MRI showing abnormality in spine at any level of the age group between 26-60years were selected for the study. A detailed information using a case report form with pre informed consent was collected from the selected patients as per inclusive criteria from OPD of our institution. Observations were interpreted in the percentage. Risk factor were observed in the form of Age (30-40yr) 65%, Sex (Female) 85%, Working Pattern (sedentary) 80%, Late awakening 75%, *Ushapan* (Drinking water early in the morning empty stomach) 40%, *Diwaswap* (Sleeping in day time) 70%, *Atitkalbhojan* (Late lunch habit) 75%, *Aptarpan* (Under-nutrition). The study have shown that factors like age group, sex (female), sedentary life style, wrong sleeping and eating patterns such as *Diwaswap* (Sleeping at afternoon), *Atitkalbhojan* (eating late) can be considered as risk factors.

**KEY WORDS:** *Atitkalbhojan, Diwaswap, Spinal Diseases, Ushapan,*

## INTRODUCTION

**CORRESPONDANT:**  
**Dr. NISTANE RITA R**  
**P.G. (Ayu.) Scholar,**  
**Department of Swasthavritta,**  
**MUHS,**  
**Nashik University,**  
**Maharashtra, India.**

The Ancient science like *Ayurved & Yoga* are specifically aimed at maintaining the health. In present era the changed life style has intervened as one of the responsible reason for causing the various health related conditions. The prevalence of chronic pain in the adult population ranges from 2% to 40%, with a median point prevalence of 15%. Among chronic pain disorders, pain arising from various structures of the spine constitutes the majority of the problems<sup>1</sup>. The lifetime prevalence of spinal pain has been reported as 54% to 80%. Studies of the prevalence of low back pain and neck pain and its impact in general have shown 23% of patients reporting Grade II to IV low back pain (high pain intensity with disability) versus 15% with neck pain. Further, age related prevalence of persistent pain appears to be much more common in the elderly associated with functional limitations and difficulty in performing daily life activities. Chronic persistent low back and neck pain is seen in 25% to 60%

of patients, one-year or longer after the initial episode. Spinal pain is associated with significant economic, social, and health impact<sup>1</sup>. *Ayurveda* have its independent system of diagnosing and treating the disease. They were aware of the fact that diseases will change their nature as per life style change in consecutive era. In present era the problems related to spine are on fire. But at the spine in spite of various investigative and treatment modalities the results are not satisfactory. Even invasive surgeries have not so much success rate. So, this is the time to find some solution which *Ayurveda* have given already just need is proper scientific thinking. *Ayurveda* believes that no disease can occur without cause. So this pilot study was carried out to explore the probable risk factors involved in causing spinal consequences in *Ayurvedic* perspective. A questionnaire was built and information was filled.

## METHODOLOGY

The study was planned to find out whether the disturbed daily regimen, life style constitutively or factors individually increases the risk of spinal problems. Detailed information using a case report form was collected from the selected patients as per inclusive criteria from OPD of Government Ayurved Hospital, Nagpur

Study setting:

- a) Type of study: pilot (observational, analytical, retrospective study)
- b) Place of study: OPD of Government Ayurved Hospital, Nagpur
- c) Sample size: 20
- d) Selection criteria: Age group between 25 to 60 years irrespective of sex and those without history of accident.

- e) Assessment was done using data collected from one to one interview.
- f) Tool of data collection: Case report form including information regarding diagnosis (on the basis of clinical and laboratory investigations) and daily life style (sleep /diet/timings/exercise etc).

### **OBSERVATIONS AND RESULTS**

We collected the data from patients visited to OPD of Government Ayurved Hospital, Nagpur.

**Age:** From that we found patients of age group 30-40 yrs are 65%, 41-50yrs are 20% and in between 51-60yrs are 15%.

**Sex:** By distributing the patients sex wise we found female are more in number that is 85% than that of male that is 15%.

**Working style:** As per their working style distribution 80% individuals were sitting working style pattern, 5% standings and 15% were field workers.

#### **LIFE STYLE RELATED CAUSES IN AYURVEDIC PERSPECTIVES**

*Pratothan* means getting early in the morning which should be followed by every individuals for being healthy. The timing recommended to get up in the morning is *Bramha Muhurta* (Fourteenth *Ghatika* of the night ~ 96 min before sunrise) as per *Vagbhatacharya*<sup>2</sup>. This

timing is specially of Vata dosha. After this period the *Kapha Kala* starts sleeping tends to increase *Kapha Dosha*. This *Kaphadosha* resides with the support of *Dhatus* except *Asthi*<sup>3</sup> which supports *Vat Dosha*. In this way getting up late in the morning vitiates *Kapha Dosha* which vitiates the *Dhatus* like *Ras, Rakta, Majja, Med* etc. All these *Dhatus* forms the essential part of all the vital organs including spine. From the collected data there were only 25% individuals were getting before sunrise (before 6:30 am) and 75% individuals were getting after sunrise (after 6:30 am).

*Ushapan* means drinking water empty stomach in the morning. The actual time advised by *Acharya* like *Bhavprakash* for *Uashapan* is *Bramhamuhrtha*<sup>4</sup>, the rationale behind that was to clear the digestive tract and to pacify the *Vat Dosha*. So it is recommended in specially *Vat Kala*. But the practice which is seen now days is drink water after getting up which

extends upto *Kala* of *Kapha* i.e. after 6 am. Thus the same pathology occurs as that of *Pratottan* due to intake of *kaphakar* thing in *kapha kala* which forms the basis for causing the spinal pathology. The *Jalapan* recommended is *quathit jala (boiled)*<sup>5</sup>. In 40% individuals. *Ushapan* were present and absent in 60% individuals.

*Diwaswap* means sleeping at day time which is one of the cause of various diseases by *Ayurveda*. According to *Sushruta*, *Diwaswap* vitiates the *Kapha Pitta Dosha*<sup>6</sup>. *Acharya charaka* mentioned that the *Diwaswap* is one of the responsible factors in *Medovruddhi* which is responsible for the compressive pathology in spine. *Diwaswap* were present in 70% individuals and absent in 30% individuals.

*Atitkalbhojan* which means having meals late were present in 75% and absent in 25% individuals. The taking meal at the time of the hunger is one of the most important conduct regarding eating habits. So taking meal after the time of appetite has passed causes the *Aahar Ras dushti*. Thus hampering the nutrition of all the body parts, *Dhatus*.

In diet pattern vegetarian were 50% and mixed (at least once in week) were 50% individuals.

*Paschat jalpan* that is taking water after meal which were present in 25% individuals and absent in 75% individuals.

*Ratrijagaran* means habit of going to bed at late night which were present in 15% individuals and absent in 75% individuals. The *Ratrijagaran* causes the *Vata Dosh* vitiation which is responsible for causing the 80 types of *Vata Vikar*<sup>7</sup>.

45% individuals were *Santarpanjanya* that is Over-nutrition and 55% of individuals were *Apatarpanjanya* i.e. Under-nutrition. The two types of pathologies are explained in *Vatavyadhichikitsa adhyay* by *Acharya charaka*, *Kshayjanya samprapti (apatarpanjanya), Margavrodhjanya (~santarpanjanya)*<sup>8</sup>. Both the types of pathology cause the *Vatavyadhi*. The *Karmalakshana* of vitiated *Vata Dosha* matches with the spinal disease pathology (example- *Sransa* ~ dislocation or protrusion of intervertebral disc, *sankoch* ~ compression, stenosis).<sup>9</sup>

## DISCUSSION

The study have shown some astonishing facts, they are:

The age group having the spinal problems at utmost place was 30-40, it

might be due to changed life style and under nutrition due to lack of time to look after own health. The spinal problems were seen more in females. It may be due to most of works are with forward bending

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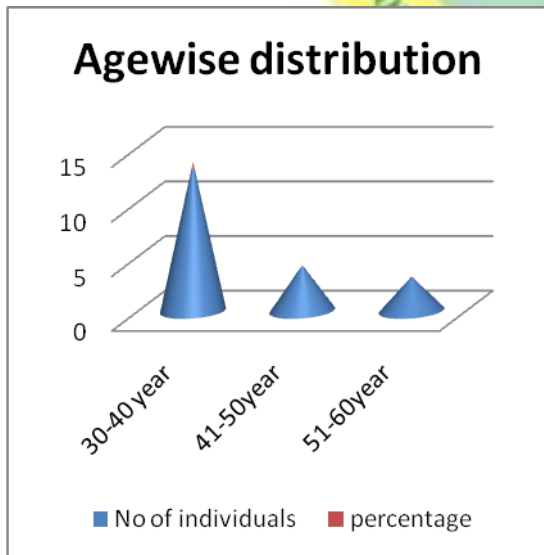
and unawareness about self health. The patients with sitting type of working profile were having the complaints related to back were more. *Ayurveda* says that absence of physical exercise and sedentary lifestyle have tendency to vitiate *vat* and *kapha dosha* and *medovaha srotas*.<sup>10</sup> Among patients having spinal disease the patient having habit to get up late are more in number. *Aacharya vagbhat* says that getting up early in the

morning protects life by preventing body parts from defects in their functions. *Diwaswap*<sup>11</sup> was significant, this might have caused spinal disease by vitiating *medodhatu*. *Atitkalbhojan* might have vitiating *Tridosha* and affected nutrition of spinal structures. Drinking water empty stomach can vitiates the *Kapha dosha* and production of *Aamavastha* by hampering the *Agni*.

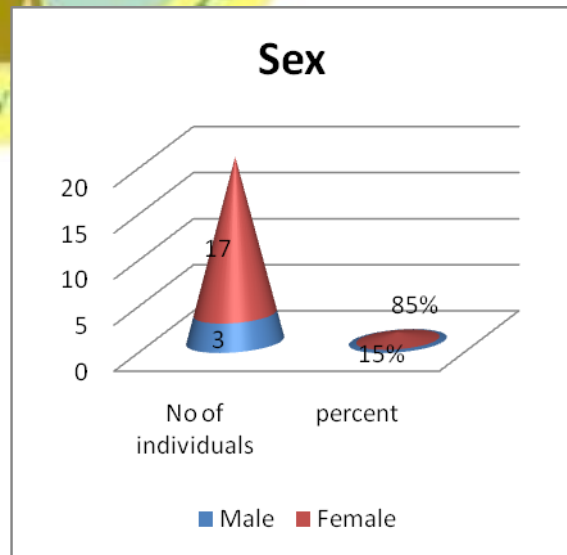
**Graphs and table**

**Table:1 Age wise distribution**

Age wise distribution	No of individuals	percentage
30-40 year	13	65%
41-50year	4	20%
51-60year	3	15%



**Graph 1**



**Graph 2**

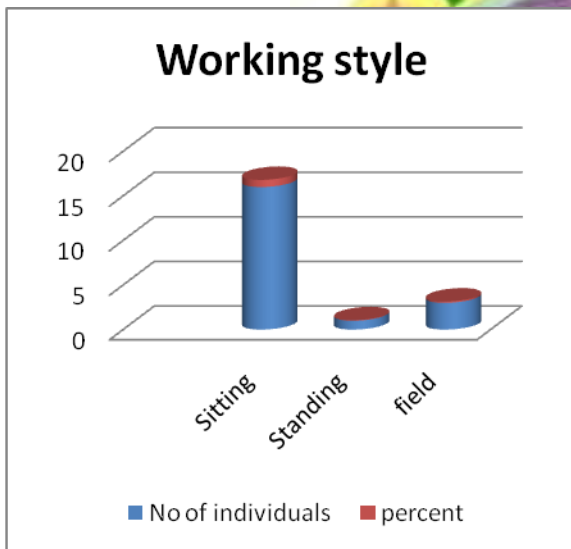
**RISK FACTORS OF SPINAL DISORDER IN AYURVEDIC PERSPECTIVE – A  
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**Table 2:Sex wise distribution:**

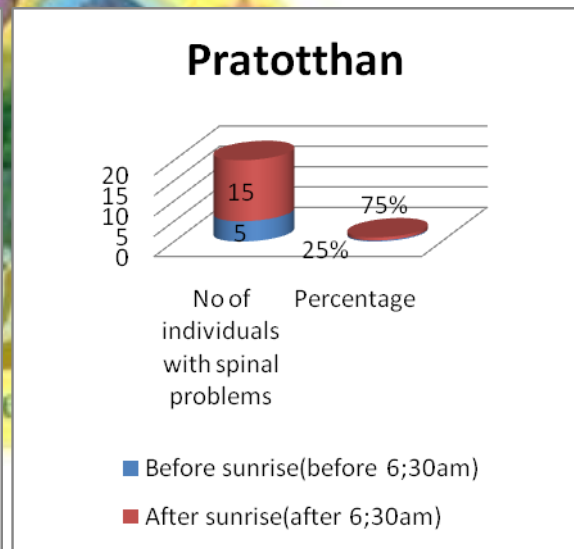
Sex	No of individuals	Percent
Male	3	15%
Female	17	85%

**Table 3: Working style:**

Working style:	No of individuals	percent
Sitting	16	80%
Standing	1	5%
field	3	15%



**Graph 3**



**Graph 4**

**Table 4: Pratothana:(getting early in the morning)**

Sr. no	No of individuals with spinal problems	Percentage
Before sunrise(before 6;30am)	5	25%
After sunrise(after 6;30am)	15	75%

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**Table 5:Ushapan:**

Sr. no	No of individuals with spinal problems	Percentage
Ushapan	8	40%
No ushapan	12	60%

**Table 6:Diwaswap:**

Diwaswap	No of individuals with spinal problems	Percentage
Present	14	70%
Absent	6	30%

**Table 7: Atitkalbhojan**

Atitkalbhojan	No of individuals with spinal problems	Percentage
Present	15	75%
Absent	5	25%

**Table 8:Diet:**

Diet	No of individuals with spinal problems	Percentage
Veg	10	50%
Nonveg (atleast once a week)	10	50%

**Table 9: Paschat jalpan:**

<i>Paschat Jalpan:</i>	No of individuals with spinal problems	Percentage
present	5	25%
Absent	15	75%



**Table 10: Atitkalbhojan**

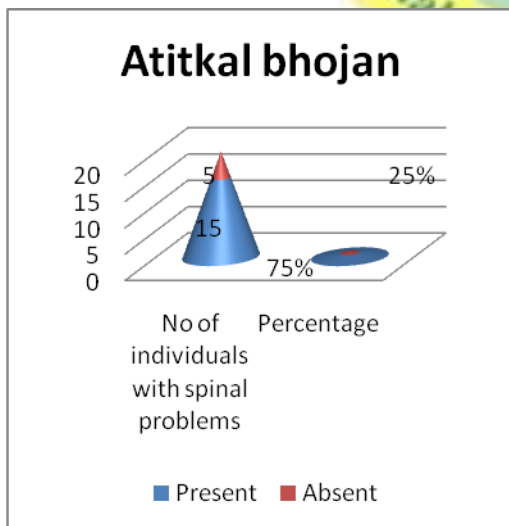
<i>Atitkalbhojan after (9 pm)</i>	No of individuals with spinal problems	Percentage
Present	9	45%
Absent	11	55%

**Table 11:Ratraujagaran**

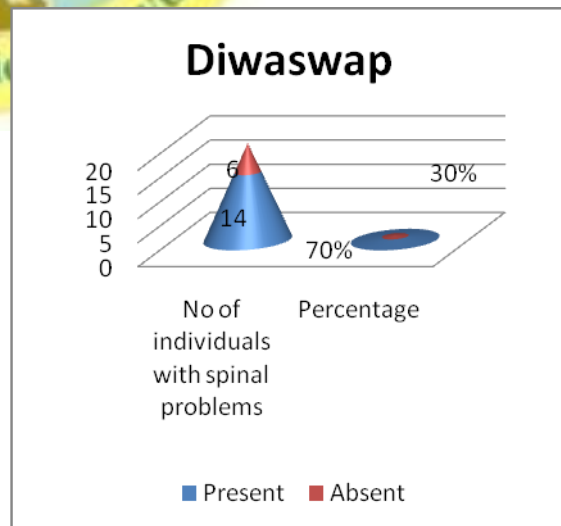
Ratraujagaran(11:30 pm)	No of individuals with spinal problems	Percentage
Present	3	15%
Absent	17	75%

**Table 12:Hetu Type:**

Hetu Type:	No of individuals with spinal problems	Percentage
Santarpaniy	9	45%
Aptarpaniy	11	55%



**Graph 5**



**Graph 6**

## **CONCLUSION**

Present study was conducted in order to rule out the causes that have power of vitiating the dosha dhatu and mala responsible for causing the spinal diseases. This concept is given in Ayurveda under the heading of Vatavyadhi and Majjavaha, Medovaha srotodushti.

The values came in front after pilot study shows that the causes like late *pratothan, diwaswap, atitkalbhajan, ushapan, diet* plays important role in causing the pathology of spinal diseases.

The prevention of diseases or the morbidity due to these diseases can be reduced by intervening these life style changes. This study made us to think on

the causes explained Ancient samhitas to be proved in this era.

Further study to be conducted to find out the multiple causes and spinal disease relationship in order to arrest these diseases in early stages.

## **ACKNOWLEDGEMENT**

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