

## A SURVEY STUDY OF THE PREVALENCE OF VARIOUS DISEASES IN YAM-DANSHTRA KALA (PERIOD BETWEEN NOV-DEC)

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### ABSTRACT

*Ayurveda*, the old age science of life has always emphasized to maintain the health and prevent the diseases by following proper diet and lifestyle regimen rather than treatment and cure of the diseases. The basic principle followed in the *Ayurvedic* system of medicine is “*Swasthasya swasthya rakshanam*” [1] which means to maintain the health of the healthy, rather than “*Aaturasya vikara prashamanam cha*” [1], means to cure the diseases of the diseased. *Sharangadhara* gives special reference about *Ritusandhi*(interseasonal period). as *Yamdanshtra Kala*(Period between Nov-Dec) i.e. the (last) eight days of *Kartika* month and the (first) eight days of *Aghan*(*Margashirsha*) are known as *Yamdanshtra Kala*(Period between Nov-Dec). During study period frequencies of various diseases were observed. The prevalence of diseases like *Amlapitta*(~*APD*), *Grudhrasi*(~*Sciatica*) and *Jwara*(~*Fever*) were found significant in *Yamdanshtra Kala*(Period between Nov-Dec).

**Keywords :** *Yamdanshtra Kala*, *Ritusandhi*, prevalence rate.

### INTRODUCTION

Ayurved is an ancient science of life and give importance to *Pathya-apathya*, *Dincharya* (daily regimen) and *Ritucharya* (seasonal regimen) have been mentioned in the classics of *Ayurveda*. With the change in season, the change is very evident in the environment we live in. We see various changes in bio-life around us such as flowering in *Vasanta*(Spring) and leaf shedding in *Sharada* (Autumn) in the plants, hibernation of many animals with coming of winter and so on. As human being also part of the same ecology, the body is greatly influenced by external environment.

Many of the exogenous and endogenous rhythm have specific phase relation-

ship with each other; which means that they interact and synchronize each other. If body is unable to adopt itself to stressors due to changes in specific traits of seasons, it may lead to *Dosh Vaishamy*(*Imbalancing in Dosh state*); which in turns may render the body highly susceptible to one or other kind of disorders.

As adoption according to the changes, is the key for survival; the knowledge of *Ritucharya*(seasonal regimen) is thus important. People do not know or ignore the suitable types of food stuffs like *viruddhaahara*(combination of food) for example taking fish with milk, banana with milk, honey with ghee, taking much drink-

ing water after meal, cold drinks with foods stuffs, fast foods, milkshake etc, dressings and other regimen to be followed in the particular season, this leads to derangement of the homeostasis and causes various diseases like skin diseases, GI diseases, hyperlipidemia, hypertension etc. If people do not follow the Ritucharya(seasonal regimen) properly i.e. *Aahara(Diet)* and *Vihara(Routine)* told in the *Ritucharya*(seasonal regimen) of the particular *Ritu*, causes various diseases due to *Dosh Vaishamy(Imbalancing in Dosh state)*. Also in the *Ritusandhi Kala*(interseasonal period) i.e. seven days at the end and the commencement of *Ritus* is known as *Ritusndhi* (interseasonal period). During that period the regimen of the preceding season should be discontinued gradually and that of the succeeding season should be adopted gradually; sudden discontinuance or sudden adoption gives rise to diseases caused by *Asatmya* (non habituation).<sup>[2]</sup>

*Sharangadhara* gives special reference about *Ritusandhi*(interseasonal period) as *Yamdanshtra Kala(Period between Nov-Dec)* i.e. the (last) eight days of *Kartika* month and the (first) eight days of *Agahan(Margashirsha)* are known as *Yamdanshtra Kala(Period between Nov-Dec)*. While explaining the importance of *Yamdanshtra Kala(Period between Nov-Dec)*, he said that during this period one can be healthy if he takes only small quantities of food.<sup>[3]</sup> Due to lack of knowledge about *Ritucharya*, *Ritusandhicharya* and this *Yamdanshtra Kala(Period between Nov-Dec)* or due to ignorance, people do not follow the regimen causes *Dosha Vaishamyata(Imbalancing in Dosh state)* in their body which results in various diseases. The above

fact triggered thought to undertake the survey study as to find out the various diseases causing due to not following the *Ritucharya* and *Ritusandhi charya* in *Yamdanshtra* which comes *Kala* at the end of the *Sharada Ritu* and starting of the *Hemanta*, which seems to healthy season. This group of patients was termed as Group2. To compare the diseases of patients in *Yamdanshtra Kala*(Group2), patients in 16 days previous to *Yamdanshtra Kala* and 16 days next to *Yamdanshtra Kala* were taken and termed as Group1 and Group3 respectively. During study period frequencies of various diseases were observed. Results were encouraging and optimistic and provided a ray of hope for next generation researchers. When all three groups were compared by calculating proportion, there were increases in the frequencies of some diseases in *Yamdanshtra Kala(Period between Nov-Dec)* i.e. in Group2. The prevalence of diseases like *Amlapitta(~APD)*, *Grudhrasi(~Sciatica)* and *Jwara(~Fever)* were found significant in *Yamdanshtra Kala(Period between Nov-Dec)*.

### Aims and Objective

1. To observe the prevalence of various diseases in *Yamdanshtra kala(Period between Nov-Dec)*.
2. To achieve social awakening over the issue.

### Mataerials and Methods

A survey study was planned to study the prevalence of various diseases in *Yamdanshtra Kala(Period between Nov-Dec)*. In this survey study, frequencies of various diseases in period 16 days previous to *Yamdanshtra Kala(Period between Nov-Dec)* (Group 1), 16 of *Yamdanshtra Kala(Period between Nov-Dec)* (Group 2) and 16 days next to

Yamdanshtra Kala(Period between Nov-Dec) (Group 3) were observed. A detailed information with proper written consent was drawn using a predesigned detailed survey pro-forma. Patients from *Kayachikitsa* OPD were taken as study population.

#### **Type of study:**

##### **Cross-sectional study:**

The simplest form of an observational study, it was based on single examination of a cross section of population in surrounding area of hospital during November-December 2013 and the results were interpreted.

##### **Epidemiological study:**

Epidemiology has been defined by John M. Last in 1988 as, “The study of health related states or events in specified populations and the application of this study to the control of health problems”<sup>[4]</sup>.

##### **Measurement of Morbidity:**

Morbidity has been defined as “any departure, subjective or objective, from a state of physiological well-being”. The term is used equivalent to such term as sickness, illness, disability etc. The morbidity could be measured in terms of three units – (a) persons who were ill; (b) the illnesses that these persons experienced; and (c) the duration of these illnesses. These aspects of morbidity are commonly measured by morbidity rates or morbidity ratios, namely frequency, duration and severity. Disease frequency is

measured by incidence and prevalence rate<sup>[5]</sup>.

##### **Prevalence:**

The term disease prevalence refers specially to all current cases (old and new) existing at given point in time, or over a period of time in a given population. The broader definition of prevalence is as follows “the total number of all individuals who have an attribute or disease at a particular time (or during particular period) divided by population at risk of having attribute or disease at this point in time or midway through the period. Although referred to as a rate, prevalence rate is really a ratio.

Prevalence is of two types:

Point prevalence

Period prevalence

In this study, frequencies of diseases were observed for certain period so that Point prevalence of diseases was calculated.

Point prevalence:

Point prevalence of a disease is defined as the number of all current cases (old and new) of a disease at one point of time, in relation to defined population. The ‘point’ in point prevalence, may for all practical purposes consist of a day, several days, or even few weeks, depending upon the time it takes to examine the population sample<sup>[6]</sup>.

Point prevalence is given by the formula:

Number of all current cases (old and new) of a specified disease existing at a given point in time

Estimated population at the same point in time

#### **1. Study setting:**

##### **Selection of Study Population:-**

Patients above 16 years of age and both male and female registered in *Kayachikitsa* OPD of concerned hospital of *Ayurved* college were taken as study population.

Group1. – Patients from OPD of previous 16 days to *Yamdanshtra kala*.

Group2. – Patients from OPD of 16 days of *Yamdanshtra kala*.

Group3. – Patients from OPD of next 16 days of *Yamdanshtra kala*.

**Sample size:-**

Sample size was calculated by average number of patients in last 3 years i.e. in 2010, 2011 and 2012 in November and December months.(Total patients in 48 days i.e. previous 16 days to *Yamdanshtra kala*, 16 days of *Yamdanshtra kala*, next 16 days of *Yamdanshtra kala*

In November – December 2013 for this study, 1321 patients were examined (Total patients in 48 days i.e. previous 16 days to *Yamdanshtra kala*, 16 days of *Yamdanshtra kala*, next 16 days of *Yamdanshtra kala*). So that, 1321 was the sample size.

**Tools of Data Collection:-**

A predesigned detailed survey pro-forma (case paper) containing following points.

1. General information about patient.
2. Complaints of patient.
3. Examination of patient.

4. Diagnosis.

**Criteria for Exclusion:-**

1. Accidental cases.
2. Poisoning cases.
3. Burn cases.

**Observation & Result:**

A survey study was planned to study the prevalence of various diseases in *Yamdanshtra Kala*. In this study, frequencies of various diseases were observed in 16 days previous to *Yamdanshtra Kala* (Group1), 16 days of *Yamdanshtra Kala* (Group2) and 16 days next to *Yamdanshtra Kala* (Group3). Frequencies diseases in *Yamdanshtra Kala* were compared with frequencies of diseases in 16 days previous and next to *Yamdanshtra Kala*.

**Comparison between Groups:**

**Table-1**

**Table Showing Frequencies of Diseases**

SN	Diseases	Gr1		Gr2		Gr3		Total	
		No. Of pts	%	No. Of pts	%	No. Of pts	%	No. Of pts	%
1	<i>Adharangaghata</i>	2	0.47%	1	0.17%	2	0.66%	5	0.38%
2	<i>Amlapitta</i>	23	5.41%	44	7.42%	11	3.63%	78	5.90%
3	<i>Ardit</i>	2	0.47%	0	0	0	0	2	0.15%
4	<i>Ashmari</i>	1	0.23%	1	0.17%	1	0.33%	3	0.23%
5	<i>Asthimajjagatavata</i>	15	3.53%	12	2.02%	2	0.66%	29	2.19%
6	<i>Agnimandya(Decrease appetite)</i>	1	0.23%	0	0	0	0	1	0.07%
7	<i>Amvata</i>	22	5.17%	26	4.38%	9	1.52%	57	4.31%
8	<i>Avabahuk</i>	13	3.06%	11	1.85%	6	1.98%	30	2.27%
9	<i>Ekangaghata</i>	1	0.23%	1	0.17%	0	0	2	0.15%
10	<i>Grudhrasi</i>	38	8.94%	77	12.98%	22	7.26%	137	10.37%
11	<i>Hypertension</i>	2	0.47%	2	0.34%	0	0	4	0.30%
12	<i>Hypothyroidism</i>	1	0.23%	0	0	0	0	1	0.07%
13	<i>Jwar</i>	18	4.23%	45	7.59%	7	2.31%	70	5.30%
14	<i>Kamala</i>	3	0.70%	1	0.17%	1	0.33%	5	0.38%
15	<i>Kasa</i>	6	1.41%	16	2.70%	16	5.28%	38	2.87%

16	Katigatavata	26	6.11%	52	8.77%	36	11.88%	114	8.63%
17	Krumi	9	2.11%	14	2.36%	4	1.32%	27	2.04%
18	Kushtha	4	0.94%	6	1.01%	2	0.66%	12	0.91%
19	Malavshambha	8	1.88%	11	1.85%	9	2.97%	27	2.04%
20	Manyagatavata	10	2.35%	18	3.03%	12	3.96%	40	3.03%
21	Medoroga	3	0.70%	4	0.67%	1	0.33%	8	0.60%
22	Mukhadushika	4	0.94%	6	1.01%	1	0.33%	11	0.83%
23	Mukhapaka	4	0.94%	13	2.19%	2	0.66%	19	1.44%
24	Mutrakruchha	4	0.94%	1	0.17%	0	0	5	0.38%
25	Pakshaghata	17	4%	22	3.71%	17	5.61%	56	4.24%
26	Pandu	3	0.70%	14	2.36%	6	1.98%	23	1.74%
27	Parshnishula	5	1.17%	2	0.34%	1	0.33%	8	0.60%
28	Pratishyaya	7	1.64%	10	1.68%	7	2.31%	24	1.81%
29	Prushthashula	6	1.41%	11	1.85%	7	2.31%	24	1.81%
30	Pravahika	3	0.70%	2	0.34%	4	1.32%	9	0.68%
31	Rajyakshama	0	0	2	0.34%	0	0	2	0.15%
32	Sandhigatavata	95	22.35%	106	17.87%	66	21.78%	267	20.21%
33	Shitapitta	0	0	5	0.84%	3	0.99%	8	0.60%
34	Shotha	19	4.47%	17	2.86%	17	5.61%	53	4.01%
35	Shula	10	2.35%	4	0.67%	6	1.98%	20	1.51%
36	Shwasa	8	1.88%	11	1.85%	4	1.32%	23	1.74%
37	Siragatvata	1	0.23%	1	0.17%	2	0.66%	4	0.30%
38	Snayugatvata	4	0.94%	1	0.17%	4	1.32%	9	0.68%
39	Vatarakta	12	2.82%	7	1.18%	4	1.32%	23	1.74%
40	Vichachika	11	2.59%	11	1.85%	6	1.98%	30	2.27%
41	Vishwachi	2	0.47%	5	0.84%	5	1.65%	12	0.91%
42	Vyanga	2	0.47%	0	0	0	0	2	0.15%

In this study we observed the frequencies of the various diseases in 16 days previous to Yamdanshtra Kala (Group1), in Yamdanshtra Kala (Group2) and in 16 days next to Yamdanshtra Kala (Group3). After observing the table- 1 and comparing the frequencies of 42 types of different diseases in Group1, Group2 and Group3, there were 5.41% patients in Group1, 7.42% patients in Group2 and 3.63% patients in Group3 of Amlapitta(~APD). So there was increase in the frequencies in Yamdanshtra Kala and

Point prevalence of Amlapitta(~APD) in Yamdanshtra Kala is 7.42%. Also there were 8.94% patients in Group1, 12.98% patients in Group2 and 7.26% patients in Group3 of Grudhrasi(Sciatica). So there was increase in the frequencies of Grudhrasi(~Sciatica) in Yamdanshtra Kala and Point prevalence of Grudhrasi(~Sciatica) in Yamdanshtra Kala is 12.98%. There were 4.23% patients in Group1, 7.59% patients in Group2 and 2.31% in Group3 of Jwar(~Fever). So there was increase in the



frequencies of the *Jwar* in the *Yamdanshtra Kala* and Point prevalence of *Jwar*(~*Fever*) in *Yamdanshtra Kala* is 7.59%(Table-1). So there were prevalence of *Amlapitta*(~*APD*), *Grudhrasi*(~*Sciatica*) and *Jwar*(~*Fever*) in *Yamdanshtra Kala*. Also there were prevalence of some diseases such as *Krumi*, *Kushtha*, *Mukhadushika* and *Mukhapaka* and incidence of diseases like *Sandhigatavata*, *Katigatavata* and *Amvata*. Out of these diseases, *Amlapitta*(~*APD*), *Grudhrasi*(~*Sciatica*) and *Jwar*(~*Fever*) had more prevalence than other diseases. So let us discuss the possible reasons responsible for the prevalence of these diseases one by one.

### 1. Amlapitta:

*Yamdanshtra Kala* comes between the *Sharada Ritu* and *Hemanta Ritu*. *Sharada Ritu*, *Kala* for *Pitta Prakopa* and also due to lack of knowledge about *Ritucharya* and *Ritusandhi charya* most of the patients of *Amlapitta* not following the *Ritucharya* and *Ritusandhi charya*. So patients were taking

their normal diet or more amount of food as compare to amount of *Aahara*(*Diet*) told in the *Ritusandhi charya*, it caused *Agnimandya*(*Decrease appetite*) in the patients. Intake of more amounts of food and drinks, there were further aggravation of *Pitta* causing *Amlapitta* in patients. Also in the classics of *Ayurveda*, *Madhava* said that when person with a pre-existing tendency for excessive *Pitta* secretion (in *Sharada Ritu*) takes incompatible, unhygienic (excessively), sour, and *Pitta* vitiating food and drinks, there is again hyper secretion of *Pitta* causing *Amlapitta*.<sup>[7]</sup> So there was prevalence of *Amlapitta* in *Yamdanshtra Kala*.

#### 1. Point prevalence of Amlapitta:

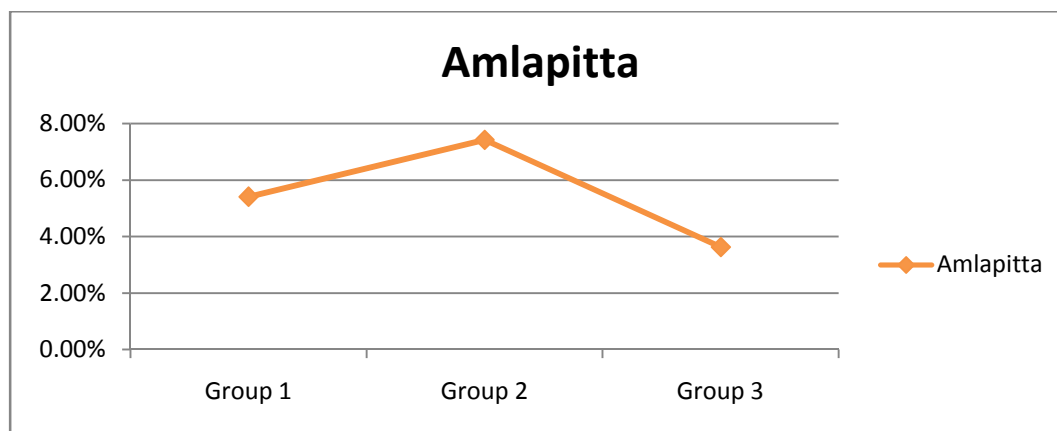
Point prevalence in Group1 is 5.41%

Point prevalence in Group2 is 7.42%

Point prevalence in Group3 is 3.63%

#### Fig-1

Figure showing point prevalence of Amlapitta



### 2. Grudhrasi:

As discuss previously out of total patients 33.69% patients were field work labour so due to excessive physical exertion caused aggravation of *Vata* and also at the end of *Sharada Ritu* and in *Hemanta Ritu*, there were increase in *Shita*(*Cold*) *Guna*

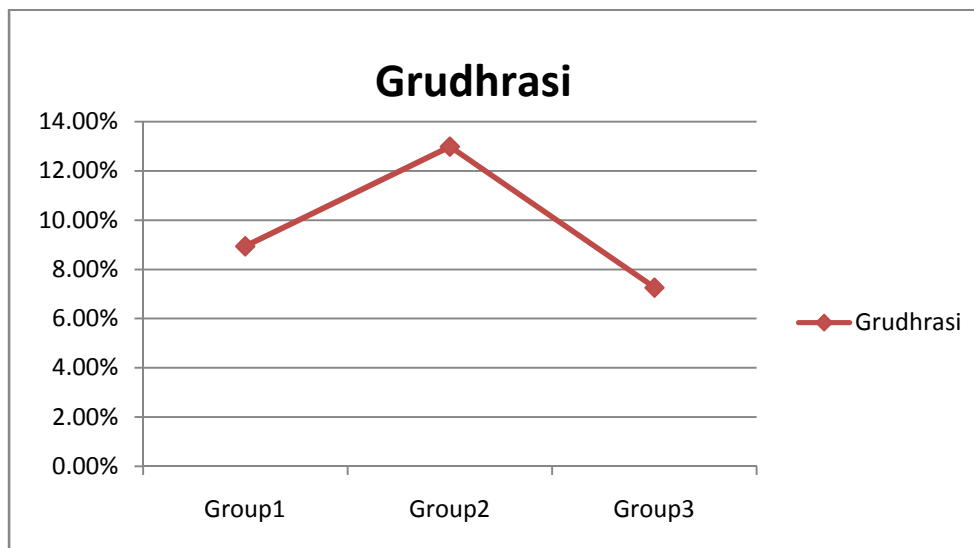
which further causing aggravation of *Vata* and due to not following of the *Ritucharya* patients were taking their normal diet or more amount of diet causing *Agnimandya*(*Decrease appetite*) and constipation (49.81% patients had constipation and *Krura Koshtha*) and in classics of *Ayurveda* while

explaining the causes of *VataKaphaja Grudhrasi Madhava* said that it causes due to *Agnimandya(Decrease appetite) (Vatashleshmoddhavayam tu nimittam vanhimardavam)*[8]. So *Vata Prakopa* due to excessive physical exertion and *Shita Guna* and *Agnimandya(Decrease appetite)* caused *Grudhrasi* in patients. So there was prevalence of *Grudhrasi* in *Yamdانشtra Kala*.

2. Point prevalence of *Grudhrasi*:  
Point prevalence in Group1 is 8.94%  
Point prevalence in Group2 is 12.98%  
Point prevalence in Group3 is 7.26%

**Fig-2**

**Figure showing point prevalence of Grudhrasi**



**3. Jwara:**

In *Sharada Ritu*, there was naturally *Pitta Prakopa* and also as patients not decreasing their diet in *Yamdانشtra Kala* as told by *Sharangadhara* causing *Agnimandya(Decrease appetite)* in patients and due to increase in *Shita Guna* there was aggravation of *Vata*. So due to aggravate *Doshas* and *Agnimandya(Decrease appetite)*, there were *Srotorodha* in patients causing *Jwar* in patients. So there was prevalence of *Jwar* in *Yamdانشtra Kala*.

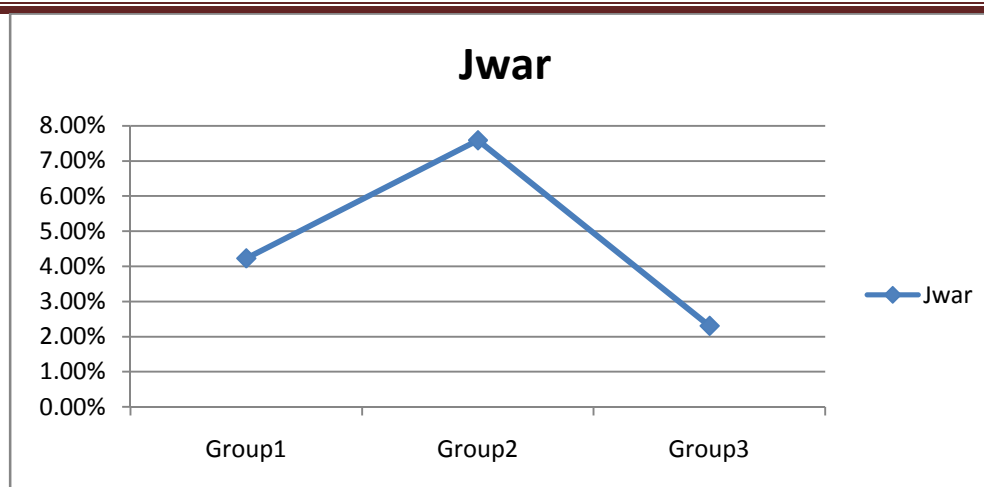
Also there were increase in frequencies of some diseases in *Yamdانشtra Kala* such as *Mukhadushika, Mukhapaka, Kush-*

*tha* and *Krumi*. They caused due to aggravated *Pitta Dosha* which further causing the *Dushti* of *Rasa Dhatu* and *Agnimandya(Decrease appetite)* due to not following *Ritucharya* regimen about *Aahara* causing *Rasa Dhatu Dushti*. This caused *Mukhadushika, Mukhapaka, Kushtha* and *Krumi* in patients in *Yamdانشtra Kala*.

3. Point prevalence of *Jwar*:  
Point prevalence in Group1 is 4.23%  
Point prevalence in Group2 is 7.59%  
Point prevalence in Group3 is 2.31%

**Fig-3**

**Figure showing point prevalence of Jwar**



After discussing over the causes of prevalence of diseases in *Yamdانشtra Kala*, the main cause for all diseases was lack of knowledge about *Ritucharya* and *Ritusandhi charya* and not following the proper regimen about *Aahara* causing *Agnimandya*(Decrease appetite).

**Importance of Yamdانشtra Kala(Period between Nov-Dec) in present Era.**

*Ritusandhi Kala*(interseasonal period) i.e. seven days at the end and the commencement of Ritus is known as *Ritusndhi* (inter-seasonal period) and *Yamadانشtra kala*, actually a *Ritusandhi kala* between *Sharada* and *Hemanta ritu* a special reference given by *Sharangadhara* and he said that during

this period one can be healthy if he takes only *Laghu ahara*(small quantities of food).[3]. But *Ritucharya* given in classics do not follow or ignored by peoples due to their sedentary life style which leads to various diseases.

In this study we evaluated diseases causes in *Yamdانشtra Kala*(Period between *Nov-Dec*) so we can make treatment and preventive plan against these diseases.

**Importance of Rasayana in Ritu**

If we follow the proper *Ritucharya* and taking *Rasayana* in *ritu* can prevent various diseases in *Ritusandhikala*. *Rituharitaki* said by *Bhavprakash* is the best *Rasayana* in *Ritucharya*[9]

Sr. no.	Ritu	Rasayana
1	<i>Shishir</i>	<i>Pippali</i>
2	<i>Vasanta</i>	<i>Madhu(Honey)</i>
3	<i>Grishma</i>	<i>Guda(Jeggery)</i>
4	<i>Varsha</i>	<i>Saindhav</i>
5	<i>Sharada</i>	<i>Sharkara(Sugar)</i>
6	<i>Hemanta</i>	<i>Shunthi</i>

**CONCLUSION**

The survey study was planned to study the prevalence of various diseases in *Yamdانشtra Kala*. In this study frequency of various diseases in 16 days previous to

*Yamdانشtra Kala* (Group1), 16 days of *Yamdانشtra Kala* (Group2) and 16 days next to *Yamdانشtra Kala* (Group3) were observed. After written consent, vital data, chief complaints, family history, history of previous medication were recorded as per



proforma. All the patients were clinically examined on the basis of modern as well as *Ayurvedic* aspects like *Samanya Parikshan*, *Dashvidha Parikshan*, *Srotas Parikshan*, etc and diagnosed and data was collected. The conclusion derived from this study was as follows-

- The prevalence of the *Amlapitta*(7.42%), *Grudhrasi*(12.98%) and *Jwar*(7.59%) were found significant in *Yamdanshtra Kala*.

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