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RISK FACTORS RELATED TO NON-OBSERVANCE OF *RITUCHARYA* IN *TAMAKA SVASA* (BRONCHIAL ASTHMA)

R. JAISWAL* AND N. NATHANI**

Declaration

The Declaration of the authors for publication of Research Paper in The Indian Journal of Research Anvikshiki ISSN 0973-9777 Bi-monthly International Journal of all Research: We, *R. Jaiswal and N. Nathani* the authors of the research paper entitled RISK FACTORS RELATED TO NON-OBSERVANCE OF *RITUCHARYA* IN *TAMAKA SVASA* (BRONCHIAL ASTHMA) declare that , We take the responsibility of the content and material of our paper as We ourself have written it and also have read the manuscript of our paper carefully. Also, We hereby give our consent to publish our paper in Anvikshiki journal , This research paper is our original work and no part of it or it's similar version is published or has been sent for publication anywhere else. We authorise the Editorial Board of the Journal to modify and edit the manuscript. We also give our consent to the Editor of Anvikshiki Journal to own the copyright of our research paper.

Abstract

Ritucharya is the basic and very important concept of SvasthavrittaObservance of Ritucharya brings about strength, complexion, happiness and longevity without disturbing the equilibrium of Dhatu and Dosa of the body. Non-observance of Ritucharya leads to disequilibrium of Dosa², which comes out as various diseases like TamakaSvasa etc. The increasing global prevalence of asthma, the large burden it now imposes on patients, and high health care costs have led to extensive research into its mechanisms and treatment. Asthmatics harbor a special type of inflammation in the airways that make them more responsive to the changes in the environmental factors. Therefore this study was planned to assess the variations in the prevalence of Tamaka Svasa with seasonal variation and to find out the observance and non-observance factors of Ritucharya of different season in respect of Tamaka Svasa disease and to assess the role of non- observance factors (risk factors) in the prevalence of Tamaka Svasa. Total 76 (49males and 27 females) Tamaka Svasa cases between age 20-60 were included in the study. Assessment of observance and non- observance was done on the basis of a specific Ritucharya based proforma. On evaluation of these survey studies, significant seasonal variations in the prevalence of Tamaka Svasa showed higher prevalence in Hemanta, Vasant andVarsaseasons. The main risk factors are the exposure to cold, rain and cloudy sky; sedentary life style; late morning awakening; intake of buffalo's milk and its products; intake of fruits like banana, guava etc. and intake of fruits and their juices in evening; living in humid environment; and intake of curd.

Key Words: Ritucharya, Amlapitta, Viruddha, Dosa

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JAISWALAND NATHANI

Introduction

Asthma is one of the most common chronic diseases globally and currently affects ~300 million people. The prevalence of asthma has risen in affluent countries over the last 30 years but now appears to have stabilized, with ~10-12%ofadults and 15% of children affected by the disease. In developing countries where the prevalence of asthma had been much lower, there is a rising incidence that appears to be associated withincreased urbanization¹. Varanasi city of Uttar Pradesh is a fine example of un-planned urbanization, in which the asthma shows high rising incidence from 2003 with the start of project of sewerage system. Asthma is heterogeneous disease with interplay between genetics and environmental factors². Well established various etiological factors with its patho-physiological role in the development of *TamakaSvasa* had been mentioned in the *Ayurveda. Acharya charak* explained the relation between hot, cold and cloudy environment with the prevalence rate of *TamakaSvasa*³. *Ritucharya* concept is framed in such a way to decrease the prevalence rate of diseases shows seasonal dependency. Observance balance the equilibrium of *Dosa* and *Dhatu* of the body and the individual never suffers from diseases thus helps in decreasing the prevelence of various diseases and hence decreases the health care cost and morbidity.

Material and Methods

The study was conducted in *Svasthyarakshana* Clinic and in the OPD of *Kayachikitsa* of Sir Sundar Lal Hospital, IMS, BHU, Varanasi.

- *Selection of sample:* Patients of different age group, gender and socio-economic status was registered on the basis of following criteria.Cases of *Tamak Svasa* based on clinical sign and symptoms of age group between 20-60 years were selected for study.Age below 20 years and above 60 years, cases with associated other diseases and complications and accidental cases were excluded in the sampling process.
- *Plan of study:* The case suffering from *Tamak Svasa*was registered and survey was done on the basis of a specific *Ritucharya* based proforma. To enquire the dietary habits and physical activities (*Aahara* and *Vihara*) followed by these patients in different seasons. To assess the relationship between different seasons and prevalence of *Tamak Svasa*, the cases was registered in six seasons. The registered cases of both rural and urban habitat were assessed for observance or non-observance of *Ritucharya* on the basis of frequency and pattern of the use of food articles and behavior observed in six seasons. To assess the impact of non-observance of *Ritucharya* (risk factors) these factors was categorized under six seasons.
- *Statistical method of assessment:* The collected data was tabulated in the master chart. For finding the results the data was analyzed on the basis of percentage. Relation between seasonal variation and prevalence of *Tamak Svasa* disease was tested on the basis of Chi-square test.

Result

Registration of 100 cases had been put out as a target for the study, out of 100 only 76 cases had been registered. Out of 76, 27 cases of female and 49 cases of male were registered.

TABLE1 Showing Age Distribution of cases⁵

| Season | Br. Asthma(76) | | | | |
|----------|----------------|-------|--|--|--|
| AgeGroup | No. | % | | | |
| 21-30 | 52 | 68.42 | | | |

| 31-40 | 09 | 11.84 |
|-------|----|-------|
| 41-50 | 11 | 14.47 |
| 51-60 | 04 | 5.26 |

It was evident from the table 1 thatmaximum prevalence of cases of *TamakaSvasa*(68%) were in 21-30 years age-group whereas minimum cases were in 51-60 years age-group.

TABLE2 Showing the prevalence of TamakaSvasa in different seasons⁶

| Disease | Asthm | na(76) |
|--------------------|----------|-----------------|
| Season | No. | % |
| Hemanta | 19 | 25 |
| Sisira | 14 | 18.42 |
| Vasanta | 15 | 19.73 |
| Grisma | 03 | 3.94 |
| Varsa | 17 | 22.36 |
| Sarad | 08 | 10.52 |
| χ^2 test | χ^2 | =14.32 |
| χ² test p value | p < | =14.32 < .01 |

It was evident from the table-2 that prevalence of *Tamaka Svasa* shows highly significant (p <.001) relation with the seasonal variation. Maximum prevalence of *Tamaka Svasa* was observed in *HemantaRitu* (25%) and minimum in *Grisma*(4%).

TABLE3 Risk factors related to Non-observance of Ritucharya in TamakaSvasa (Bronchial Asthma) cases⁷

| Seasons Risk factors | Hemanta (19) | | Sisira (14) | | Vasanta (15) | | Grisma (03) | | Varsa (17) | | Sarad (08) | |
|--|--------------|-------|-------------|-------|--------------|-------|-------------|-------|------------|-------|------------|-------|
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| Exposure to cold, (cold wind/air; cooler; fan; A.C.), rain, cloudy sky | 17 | 89.47 | 12 | 85.71 | 07 | 46.66 | 02 | 66.66 | 11 | 64.70 | 01 | 12.5 |
| Exposure to dust | 12 | 63.15 | 09 | 64.28 | 12 | 80.00 | 03 | 100 | 00 | | 04 | 50.00 |
| Exposure to smoke, fumes | 07 | 36.84 | 05 | 35.71 | 06 | 40.00 | 01 | 33.33 | 07 | 41.17 | 03 | 37.5 |
| Occupational exposure | 02 | 10.52 | 01 | 07.14 | 00 | 00.00 | 00 | | 01 | 05.88 | 01 | 12.5 |
| Type of house -Non ventilated and humid | 06 | 31.57 | 08 | 57.14 | 03 | 20.00 | 01 | 33.33 | 09 | 52.94 | 02 | 25.00 |
| Physical activity – sedentary | 09 | 47.36 | 09 | 62.28 | 07 | 46.66 | 03 | 100 | 12 | 70.58 | 02 | 25.00 |
| Late morning awakening 7-9 A.M.or more | 12 | 63.15 | 08 | 57.14 | 06 | 40.00 | 02 | 66.66 | 11 | 64.70 | 04 | 50.00 |
| Day time sleeping | 05 | 26.31 | 03 | 21.42 | 04 | 26.66 | 03 | 100 | 04 | 23.52 | 02 | 25.00 |
| Intake of rice at night | 3 | 15.78 | 02 | 14.28 | 02 | 13.33 | 02 | 66.66 | 04 | 23.52 | 00 | 00.00 |
| Intake of cold item – cold water, cold drink ice- creams | 03 | 15.78 | 01 | 07.14 | 06 | 40.00 | 02 | 66.66 | 05 | 29.41 | 03 | 37.5 |
| Intake of curd | 04 | 21.04 | 02 | 14.28 | 08 | 53.33 | 03 | 100 | 02 | 52.94 | 03 | 37.5 |
| Intake of lassi | 02 | 10.52 | 00 | 00 | 04 | 26.66 | 02 | 66.66 | 07 | 41.17 | 01 | 12.5 |
| Intake of buffalo's milk, ghee and items | 13 | 68.42 | 08 | 57.14 | 07 | 46.66 | 03 | 100 | 06 | 35.29 | 04 | 50.00 |
| Intake of fruits like – Banana, Guava in evening; Vit. C rich fruits and juices at evening | 14 | 73.68 | 06 | 42.84 | 07 | 46.66 | 02 | 66.66 | 09 | 52.95 | 04 | 50.00 |

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It is evident from the above table that maximum numbers of cases (19) of *TamakaSvasa* (Bronchial Asthma)were found in *Hemanta* season. Exposure to cold (such as cold air, cooler, fans, A.C.), rain, cloud sky; exposure to dust; sedentary lifestyles; non-ventilated and humid type of house; intake of buffalo's milk, ghee and its products; and intake of curd were the risk factors observed in cases of *TamakaSvasa* (Bronchial Asthma). The major risk factors followed by them in *Hemanta* season were: exposure to cold, cloudy sky (89%); intake of fruits like banana, guava and fruit juice at night (73%); intake of buffalo's milk, ghee and its products (68%); exposure to dust (63%); late morning awakening (> 8 AM in 63%); and sedentary lifestyles (47%).

Discussion

- SeasonalVariation; In this study we observed a relationship between seasonal variation and*TamakaSvasa* in parlance of ancient science of Ayurveda. It was observed that prevalence of *TamakaSvasa* (Bronchial Asthma, p value <.01) showed significant relation with the seasonal variation. During the period of Hemanta, Vasanta and Varsa the percentage of their prevalence was highest, 25%, 19% and 22% respectively.
- According to *Ayurveda*, *Hemanta* is the period in which *Kaphadosa* get accumulated and *Vata* get vitiated due to non-observance of *Hemantacharya*, this accumulated *Kaphadosa* get vitiated in the *Vasanta* period. *Varsa* is the period in which *Vatadosa* get vitiated. Higher percentage of Asthma (*Vata-Kapha* disorders) during this period supports the above belief⁸.
- *The Impact of Non-observance of Ritucharya on the TamakaSvasa;* According to *Ayurveda*, Asthma is *Vata – kaphaja* disease. Asthma gets aggravated in the *Varsa, Hemanta, Sisira* and *Vasanta* seasons. The exposure to cold, rain and cloudy sky; exposure to dust; exposure to smoke, fog; intake of *Kaphavardhaka* diet are mentioned as the important etiological factors for Asthma in the *Ayurvdic* description of *TamakaSvasa*. Cloudy sky; rain and humid environment of *Varsa* season; cold, blow of eastern wind and dryness of *Hemanta* and *Sisira* season; and vitiation of *Kapha* in *Vasanta* season are the important causative factors to aggregate Asthma⁹. In modern science cold and dry air of winter season leads to excessive dehydration of nasal passage and the upper respiratory tract and there is increased chance of microbial and viral infection. Warm and humid weather of *Varsa* season is host to a variety of infectious diseases. *Vasanta* season is the season of pollens, which are known allergens in case of Asthma. Thus these explanation support the finding of etiological factors in the study.

Conclusion

TamakaSvasa (Bronchial Asthma)shows higher prevalence in *Hemanta, Vasanta* and *Varsa* seasons. The main risk factors are the exposure to cold, rain and cloudy sky; sedentary life style; late morning awakening; intake of buffalo's milk and its products; intake of fruits like banana, guava etc. and intake of fruits and their juices in evening; living in humid environment; and intake of curd.

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