Clinical study on the Rasayana effect of Ashwaganda and Punarnava

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ABSTRACT

Background: It has been the desire of mankind to lead a disease free life to its fullest extent. To improve quality and quantum of life ‘Rasayana’ has been explained in Ayurveda. It is not only indicated in the diseased but also in healthy individuals. Ashwagandha (Withania somnifera Dunal) and Punarnava (Boerhavia diffusa Linn) are explained by Vagbhata in Rasayana context. Both these can be administered without much restrictions as per Vata tapika mode of administration. Objectives: To study the Rasayana effect of Ashwagandha and Punarnava w.r.t. Ajasrika Rasayana. Materials and Methods: 32 students who fulfill the inclusion criteria were selected from S.D.M. College of Ayurveda, Hassan. They were divided in to two groups. Group A – 16 members were given with 2 tablets of Harithaki for 3 days for ‘Koshta Shudhi’, followed by a placebo with warm water before taking food for 40 days and kept as control. Group B – 16 members were given with 2 tablets of Haritaki tablets for ‘Koshta Shudhi’ followed by administration of 12 gm of Ashwagandha and Punarnava granules (equal quantity) twice a day along with warm water before taking food for 40 days. Results: Assessment was done two times in 40 days before and after the administration of Ashwapunarnava compound and were assessed for improvement in terms of subjective and objective parameters. Observations and results were tabulated and statistically analyzed with relevant parameters. Conclusion: Ashwapunarnava compound proved to be cost effective, palatable, safe and better drug for daily administration without much restriction.

Key words: Rasayana, Arogya, Ashwagandha, Punarnava.

INTRODUCTION

Ayurveda, the science of life aimed itself in promotion and preservation of physical and mental health, has provided a special kind of unique field called Rasayana. This is equally effective in the prevention of the ill effects of aging and prevention of diseases by increasing the immunity and resistance of the individual against diseases and its effects are attributed to the action of producing the bodily tissues of optimum quality. Rasayana must primarily be life-sustaining and then tissue building. But the tissue building is not possible unless the existing blood and tissues are rendered clean and brought to a fit condition for fresh growth, and this has also to be achieved by the Rasayana. Again, a Rasayana must have food-value, in order to be freshly mixed up with Rasam (serum) to feed blood and build the several tissues in different metabolized stages. The reconstruction of the constitution depends upon the metabolic process which commences from Rasam. Considering all these aspects we have taken Ashwagandha and Punarnava compound as Ajasrika Rasayana. Ajasrika Rasayana is explained by Dalhana.
It is a type of Rasayana where Aushadhi are to be employed everyday. Under this context Ksheera and Ghrita are mentioned[1] in the context of Nitya Sevaniya Aharadravya, Amalaki and Triphala Rasayana are explained.[2] Ashwagandha (Withania somnifera Dunal)[3] and Punarnava (Boerhavia diffusa Linn)[4] are explained by Vagbhata in Rasayana context. Ashwagandha is explained to possess qualities of Pustiprada, Balya, Rasayana and Vrishya.[5] Punarnava means that which rejuvenates the body on account of Tridoshashamana, Deepana, and Rasayana.[6]

A similar study was conducted with this combination in children with beneficiary effects. But in that study the drugs were administered with milk as Anupana Dravya where the milk itself possesses Rasayana properties.[7] In this study the beneficiary effects of this compound will be studied in adults with Ushnajala as Anupana. The root powders of these drugs will be used for the compound. For administration the compound will be made in to granules form.

**OBJECTIVES**

To study the Rasayana benefits of Ashwagandha and Punarnava and to evaluate benefits of Ashwapunarnava compound as a Ajasrika Rasayana.

**MATERIALS AND METHODS**

In this present study the beneficiary effect of Ashwapunarnava compound as an AjasrikaRasayana was studied by taking 32 subjects over a period of 40 days. The Apparently healthy voluntary individuals from S.D.M College of Ayurveda, Hassan were selected for this study, irrespective of sex, caste and socio economical status. The subjects were examined in detail as per special proforma which included both Ayurvedic and modern methods of examination. The criteria for selection of subjects to this study are as follows.

**Criteria for selection of Patients**

**Inclusion criteria** - Apparently healthy individual between 18 to 25 years who are willing to undergo trial and Inmates of hostels of SDM college of Ayurveda, Hassan, were included in the study.

**Exclusive criteria** - The individual suffering from any systemic diseases, Congenital anomalies were excluded.

**Laboratory Investigations**

Following laboratory investigations were conducted to rule out the pathology and to assess the changes during present study,

- Hematological – Hb%, TC, DC, ESR, RBS.
- Serological – Serum proteins, Albumin.
- Urine routine – albumin, sugar and microscopic.

**Research design**

32 apparently healthy subjects who fulfill the inclusion criteria were selected from S.D.M. collage of Ayurveda, Hassan for the study. They were divided in to two groups.

**Group-A (Placebo group)** – 16 subjects were given with 2 tablets of Harithaki administered for 3 days for Koshta Shudhi, followed by a placebo with warm water before taking food for 40 days and kept as control.

**Group-B (Rasayana group)** – 16 members were given with 2 tablets of Harithaki for Koshta Shudhi followed by administration of 12 gm of Ashwagandha and Punarnava granules (equal quantity) twice a day along with warm water before taking food for 40 days.

**Assessment criteria**

Assessment of clinical study were done based on the subjective and objective changes recorded,

**Subjective parameters**

The beneficiary effects of Rasayana were assessed in terms of changes in Arogya Lakshana explained in Kashyapa Samhita. The following signs and symptoms were graded for assessment.

**Assessment of Arogya Lakshana**

**Annabrilasha (Desire for food)**

a) Timely manifestation of hunger - grade 0
b) Occasional loss of interest - grade 1

c) Disinterested to food always - grade 2

**Bhuktasya Paripaka (Easy digestion of food)**

a) Easy digestion of food - grade 0

b) Occasional disturb in digestion - grade 1

c) Always feel indigestion - grade 2

**Srustinmootratwa (Excretion of feces & urine)**

a) Normal - grade 0

b) Occasional disturbance - grade 1

c) Untimely and disturbed - grade 2

**Shareersya Laghavam (Lightness of Body)**

a) Feels lightness and enthusiastic - grade 0

b) Occasional disturbance - grade 1

c) Feels heaviness and laziness - grade 2

**Suprasannendriyatwa (Perspicuity of Indriyas)**

a) Natural function of Indriyas - grade 0

b) Mild improvement - grade 1

c) Good improvement - grade 2

**Sukhaswapnaprabodanam (Comfortable sleep and awakening)**

a) Normal manifestation - grade 0

b) Occasional delay - grade 1

c) Continuous disturbance - grade 2

**Bala Labha (Attainment of strength)**

a) Feels healthy and strong - grade 0

b) Occasional fluctuation - grade 1

c) Always tired and disturbed - grade 2

**Soumanasya (Happiness)**

a) Feels happiness and cheerful - grade 0

b) Occasional fluctuation - grade 1

c) Always depress and disturbed - grade 2

**Objective parameters**

Haemoglobin, Serum protein, Serum Albumin, Body Weight, BMI

**Observations and Results**

The clinical study was conducted on 32 apparently healthy subjects who were classified into 2 groups, 16 subjects in Group - A, Placebo 2 capsules (sugar capsule) twice a day with lukewarm water before food, and Group- B (Rasayana group) in which *Ashwapunarnava* granules was given in dose of of 12 gms twice a day with lukewarm water before food was administered.

**Age:** Age wise distribution of subjects showed that maximum 81.25% were in the age group of 18 – 20 yrs, followed by 15.65% were in the age group of 21 – 23 years and 9.37% were in the age group of 24 – 26 years.

**Sex:** Out of 32 subjects of this series 50% were males and 50% were female.

**Religion:** Religion wise distribution of subjects showed that maximum of 87% were Hindus followed by 10 % were Muslim and 3% were Christians.

**Socio-Economic Status:** Socio-economic status wise distribution of subjects showed that maximum of 89.37% were of belonged to middle class followed by 0.03% belonged to lower class, 0.06 % belonged to upper class.

**Dietary Habit:** Analysis of dietary habit of 32 subjects of this series showed that 43.75% were vegetarians and 56.25% were having mixed dietary habits

**Prakriti:** Among the subjects included in the study, 40.56 % were having Vata-Pitta and Pitta-Kapha and 18.75% subjects were of Vata- Kapha Prakriti.

**Built:** In this series 6.75 % were of large built, 84.37% of medium and 0.06 were having small built.

**Sara:** Sara wise distribution of 32 subjects in which 37.5 % were possessing Rasa Sara, Raktta Sara 31.25 %, Mamsa Sara 15.62 % and Asthi Sara 15.62%.
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**DISCUSSION**

The clinical study was conducted to understand the literary and therapeutic aspects of Ajasrika Rasayana and its impact on prevention and promotion of health. The role of Aswapunarnava compound as a Ajasrika Rasayana which can be taken on daily basis. Under-nutrition is one of the risk factor for the varies diseases and it is seen more in lower socio economic group, where the deficiency of proteins essential vitamins and minerals is very common. Deficiencies of these nutrients also impair the immunity. In the present study statistics shows greater increase of serum proteins in the Rasayana group, apart from this observation, positive gains are noted in anthropometrical assessments also. Hence Ashwagandha Punarnava Rasayana can be included as an effective nutritional supplementation in apparently healthy individual without much restriction and without any side effect.

In Rasayana Group, Annabhilasha was improved by 68.7% which was statistically highly significant at p<0.001; Placebo therapy improved the Annabhilasha by 30% which was statistical significant at p<0.05. So, Rasayana drugs have shown better improvement in Annabhilasha in comparison to placebo group in subjects involved in this study, in terms of percentage and significance.

In Rasayana Group, Bhuktasya Paripaka was improved by 57% which was statistically highly significant at p<0.001; where as Placebo therapy improved the by 66% which was statistical significant at p<0.05. So, Rasayana drugs have shown better improvement in Bhuktasya Paripaka in comparison to study group in subjects involved in this study, in terms of percentage and significance.

In Rasayana Group, Srustavinmootratva was improved by 40% which was statistically highly significant at p<0.001; where as in, Placebo therapy improved by 26%, which was statistical significant at p<0.05. So, Rasayana drugs have shown better improvement in Srustavinmootratva in comparison to placebo group in subjects involved in this study, in terms of percentage and significance.

In Rasayana group, Shareerasyalaghavam was improved by 61% which was statistically highly significant at p<0.001; where as in, Placebo therapy improved the by 40% which was statistical significant at p<0.001. So, Rasayana drugs have shown better improvement in shareerasyalaghavam in comparison to placebo group in subjects involved in this study, in terms of percentage.

In Rasayana group, Suprasannendriyatwa was improved by 57.14% which was statistically highly significant at p<0.001; where as in, Placebo therapy improved the by 11% which was statistical significant at p<0.001. So, Rasayana drugs have shown better improvement in Suprasannendriyatwa in comparison to placebo group in subjects involved in this study, in terms of percentage.

In Rasayana Group, Sukhaswapnaprabodanam was improved by 44% which was statistically highly significant at p<0.001; where as in, Placebo therapy improved the by 8.2% which was statistical significant at p<0.001. So, Rasayana drugs have shown better improvement in Sukhaswapnaprabodanam in comparison to placebo group in subjects involved in this study, in terms of percentage.

In Rasayana Group, Balalabha was attained by 75% which was statistically highly significant at p<0.001; where as in, Placebo therapy improved the by 8.2% which was statistical significant at p<0.001. So, Rasayana drugs have shown better improvement in Balalabha in comparison to placebo group in subjects involved in this study, in terms of percentage.
In Rasayana Group, **Soumanasya** was improved by 75% which was statistically highly significant at p<0.001; where as in, Placebo therapy improved the by 61% which was statistical significant at p<0.001. So, Rasayana drugs have shown better improvement in **Soumanasya** in comparison to placebo group in subjects involved in this study, in terms of percentage.

In Rasayana Group, serum protein was improved by 7.6% which was statistically highly significant at p<0.001; where as, Placebo therapy improved the by 7.2% which was statistical significant at p<0.001. So, Rasayana drugs have shown better improvement in serum protein in comparison to placebo group in subjects involved in this study, in terms of percentage and significance.

In Rasayana Group, serum albumin was improved by 23% which was statistically highly significant at p<0.001; where as, Placebo therapy improved the by 1.25% which was statistical significant at p<0.001. So, Rasayana drugs have shown better improvement in serum albumin in comparison to placebo group in subjects involved in this study, in terms of percentage and significance.

In Rasayana Group, BMI was improved by 6.25% which was statistically highly significant at p<0.001; where as in Study group, Placebo therapy improved the by 1.7% which was statistical significant at p<0.001. So, Rasayana drugs have shown better improvement in BMI in comparison to placebo group in subjects involved in this study, in terms of percentage and significance.

**CONCLUSION**

**Rasayana Chikitsa** is explained with a purpose of replenishing and nourishing of specific bodily elements. Various **Rasayana Aushadhis** are to be administered during various periods of life. In healthy persons also **Rasayana** can be administered without much restriction on part of diet and regimen. Considering all these aspects scholar has taken **Ashwagandha** and **Punarnava** compound as an **Ajasrika Rasayana**. Impairment in nutritional status (malnutrition) forms an important predisposing factor for various diseases. It is necessary to introduce a suitable nutritional adjuvant. Such supplement will correct the requirement nutrition and enhance **Arogya Lakshanas** which are told in Ayurveda.

**REFERENCES**