

A CLINICOPATHOLOGICAL STUDY ON SHOSHA WITH SPECIAL REFERENCE TO THERAPEUTIC EFFECT OF ASWAGANDHADI CHURNA

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ABSTRACT

Ayurveda is a science based on Ancient Indian Philosophy. Popularly speaking *Ayurveda* can be defined as a medical science which helps the human body to keep fit, to providing cures from indigenous plants. The disease *Shosha* is described in various *Ayurvedic* texts as well as non-medical ancient literature with its clinical features, pathology and treatment. It is disease which is mentioned as a synonym of *Rajyakshma*. But *Shosha* seems to be a separate entity. The present study was carried out to assess the efficacy of *Aswagandhadi Churna* on *Shosha*. In entire study 30 patients were enrolled in two groups at Shri Ayurved College, Nagpur Maharashtra. Patients were selected randomly after confirmation of diagnosis by means of clinicopathological examination. These patients were divided into two groups' i.e experimental group & control group. All the patients were treated with *Ashwagandhadichurna* & placebo drug respectively for 28 days. To evaluate the total effect of therapy on symptoms of *Shosha* Wilcoxon signed Rank test and paired 't' test was applied. Result of therapy was evaluated on the basis of improvement in symptom & biochemical parameter. Conclusion of this study is *Ashwagandhadichurna* is moderately effective on *Shosha*.

Keywords: *Aswagandhadichurna, DhatuKshaya, Dhatupushtikar, Rasayana, Rajyakshma, Shosha, Vyavayashosha.*

INTRODUCTION:

Ayurved is a science based on ancient Indian Philosophy. The diseases are affected by environment, Occupation, Psychology, stress, dietary pattern, malnutrition, unnecessary fasting, and general debility. *Shosha* are one of them. A large number of Populations is suffering from diseases like *Shosha* and some of these are life threatening if remains untreated.

Shosha is described in various *Ayurvedic* classics with its clinical features, pathology and treatment. Some where it is mentioned as a synonym of *Rajyakshma*¹. *Shosha* is multisystem disease caused mainly due to *Vyavaya, Shok, Jara,*

*Vyayama, Vrana, Upawasa.*² The incidence of disease *Shosha* is increases day by day. This disease caused due to *Kshaya* (wasting) of *Dhatu*. It is not necessary of label the *Kashya* of all *Dhatu*s as *Shosha* even it can labelled due to *Kashya* of any individual *Dhatu*.³

The diseases *Shosha* is found to be gradually flourishing in the society and the number of sufferers are increasing so in the present era, it has become one of the most common and challenging health problems.

The worldwide distribution of the disease "*Shosha*" and failure to tackle it is still a

big problem before medical and social workers. The victims are increasing in number with every other day. It is found it two types namely – primary and secondary. Secondary *Shosha* is a result of some other disease causing general emaciation of body. It is not necessary to label the “*kshaya* of all *dhatu*s” as *Shosha*. Even the *kshaya* of any individual *dhatu* can cause this condition and can be considered as “*Shosha*”⁴.

While treating this disease the drug must be effective on *Dhatu*. It must be *Dhatupushtikar* and *Rasayan* in nature. *Ashwagandhadichurna* is fulfilled all criteria of treatment. It is *Dhatupushtikar* and *Rasayan*. The efficacy of this compound and preparation is described in *Rasatantrasar* and *siddhaprayogasangraha (A.H.)*.

A vast number of drugs suggested in *Ayurvedic* classics are claimed as effective in *Shosha*. The drug if found effective on *shosha*, a new drug of sources can be added further in the list of natural *rasayani* effect for *shosha*. In the present state of life the present trend of treatment is to find at most effective remedies which are easily available cheap and subjects of all works of life can adapt with all these considerations.

Aim and objectives:

1. To study the *shosha* according to *Ayurvedic* texts and its clinicopathological trends.
2. To observe the efficacy of *Ashwagandhadichurna* on *shosha* in relation with symptomatic and clinicopathological changes in patients.

Objectives:

1. To evaluate the therapeutic value of drug.
2. To find out most effective remedy, this is cheaper, simple and easily available.

Material and Methods:

Selection of drug:

Trial drug *Aswagandhadichurnais* polyherbal formulation in the form of *Churna (Powder)*. Total 6 drugs are described in *Aswagandhadichurnain Rasatantrasara & Siddha PrayogSanghrraha Part II-13th*.Chapter.

Procurement of drug:

Ingredient of *Aswagandhadichurna* namely *Ashwagandha (withania somenifera)*, *Vidharikanda (Pueraria tuberosa)*, *Amalaki (Emblica officinalis)*, *Goksurā (Tribulustertrilis)**Guduchi (Tinosphora cordifolia)*. All the drugs were first identified & authenticated from Dravyaguna Dept. of Shri Ayurved College, Nagpur.

Method of preparation of drug:

All the above mentioned drugs were taken in equal quantity in powder form, followed by 3 *bhavanas* of *shatavari swarasa* to total *churna* later equal amount of *mishri* was mixed properly.

RESEARCH DESIGN:

Study Population:

An accessible population of adolescence patients in Pakvasa Ayurved Hospital (Shri Ayurved Mahavidyala, Nagpur), Nagpur Maharashtra who were suffering from *Shosha* participated in the study.

Sampling:

Simple random sampling technique.

Study Sample:

The patient from periphery area of Nagpur Maharashtra having clinical manifestation of *Shosha* was enrolled.

Sample Size:

30 patients having clinical features of *Shosha*, willingly participated in study were selected from Pakvasa Ayurved Hospital; Nagpur Maharashtra. These patients were divided into two groups.

Experimental group:

15 patients were selected in this group. This was labelled as group “A”. This group was treated by *Ashwagandhadichurna*.

Placebo (Control groups):

Remaining 15 patients were selected for the study in this group. This was labelled as group "B". In this group Placebo drug was given to patients.

Study Setting: The study was carried out at Pakvasa Ayurved Hospital, Nagpur Maharashtra from April 2002 TO May 2005 with due written consent of patient.

Diagnostic Criteria:

A Special proforma was prepared including sign & symptoms of *Shosha*. Every patient was subjected to physical examinations. Patient of *Shosha* were only enrolled. Other necessary investigations were carried out to exclude the other pathology.

Inclusive Criteria:

- Age 18 years above
- Both sexes.
- Those who were regularly attended OPD.
- Patients with symptoms described in Ayurvedic text of *shosha*.

Exclusive Criteria:

- Below 18 years.
- Pregnant women.
- *Shosha* with genetic predisposition and haemoglobinopathies.
- MDR tuberculosis.
- Malignancy.
- Endocrine disorder.
- Immunocompromised patients.

Diagnostic Criteria:

The patients were diagnosed on the basis of clinical features described in *Ayurvedic* text along with the clinicopathological findings.

Clinical Features:

- *Ashaktimathune* (Coital inability)
- *Alaprasek* (Scanty delay ejaculation)
- *Panduta* (Anaemia)
- *Pradhyanshil* (Anxiety)
- *Strastangta* (Flaccidity of limbs and depression)

- *Indriyadurbalaya* (Vital and sensorial weakness)
- *Kampana* (Tremors)
- *Shushkakasa* (Dry cough)
- *Shuka-Rukshaaanana* (Dry rough faces)
- *Prasuptagatravyayava* (Numbness of body and organs)
- Discharges from eye, mouth, nose
- *Parshwashula* (lat.Chestpain)
- *Daha* (Burning sensation)
- *Krushata* (Cachexia)
- Significant weight loss.

TREATMENT METHODOLOGY & SCHEDULE:

As per inclusion criteria patients were selected by simple randomized method. Methodology of treatment for the patients as follows

1. *Ashwagandhadichurna* was prepared according to *Rasatantrasara* and *sidhaprayogsangraha* part II 13th chapter Rasayanvajikarna.

2. Dose of drug- 2 gm.

Anupan - Cow'smilk.

Sevankala - Twice day

Route of administration - orally

Duration - 28 days for research purpose with follow up after every week.

ASSESSMENT CRITERIA:

The improvement in patient was assessed mainly on the basis of following points.

1. Clinic pathological investigations.
2. Improvement in sign & symptoms of disease.

All the parameter was noted before treatment. The treatment was started to the patients of *shosha* in their respective groups. The patients were assessed each week after starting the treatment. The improvement in sign & symptoms were assessed by adopting following score method.

Sr. No	Symptom	Grade
1	Absent	0
2	Mild	1
3	Moderate	2

4	Severe	3
5	Totally incapacitated	4

Considering the overall improvement shown by patients in signs & symptoms the total effect of therapy was assessed in terms of mild improved, moderately improved, highly improved, & not improved as follows

1. Highly improved: patient showing improvement more than 75% in sign & symptoms was taken as markedly improved
2. Moderately improved: patient showing improvement up to 50 to 75 % in sign & symptoms was taken as moderately improved
3. Mildly improved: patient showing improvement up to 25 to 50 % in sign &

symptoms was taken as mildly improved

4. Not improved: below 25% relief in signs & symptoms of *Shosha*.

ADVERSE EFFECT OF EVALUATION CRITERIA:

Evaluation & reporting of adverse effect was done as per guidelines of National Pharmacovigilance Programme for Ayurveda, Siddha, & Unani (ASU) drugs.

DATA ANALYSIS:

Statistical evaluation of data was done using mean, SD, SE percentage. For statistics paired 't' & wilcoxon signed rank test was applied.

STATISTICAL ANALYSIS:

1. Effect of Ashwagandhadichurna on Shosha w.s.r to Panduta

GROUP	T/t DURATION	MEDIAN	MEAN	S.D.	S.E.	P	S	I
A	B.T.	2	1.467	1.302	0.3362			
	A.T.	1	0.667	0.7237	0.1869	0.0039	**	S
B	B.T.	2	1.6	1.121	0.2895			
	A.T.	2	1.6	1.121	0.2895	1	NS	-

This study shows that highly significant to reduction in *Panduta* of *Shosha* disease.

2. Effect of Ashwagandhadichurna on Shosha w.s.r to Daurbalyata

GROUP	T/t DURATION	MEDIAN	MEAN	S.D.	S.E.	P	S	I
A	B.T.	2	2.4	0.6325	0.1633			
	A.T.	1	0.5333	0.5164	0.1333	0.0001	***	S
B	B.T.	3	2.533	0.5164	0.1333			
	A.T.	2	2.4	0.6325	0.1633	0.5781	NS	-

This study shows that highly significant to reduction in *Daurbalyata* of *Shosha* disease.

Effect of Ashwagandhadichurna on Shosha w.s.r to Krushata

GROUP	T/t DURATION	MEDIAN	MEAN	S.D.	S.E.	P	S	I
A	B.T.	1	1.267	1.223	0.3157			
	A.T.	0	0.3333	0.6172	0.1594	0.0039	**	S

B	B.T	2	1.6	1.056	0.2726			
	A.T.	1	0.9333	0.9612	0.2482	0.0156	*	-

This study shows that highly significant to reduction in *Krushata* of *Shosha* disease and significant increasing symptoms in placebo.

3. Effect of Ashwagandhadi Churna on Shosha w.s.r to Uttarottar dhatukshaya.

GROUP	T/t DURATION	MEDIAN	MEAN	S.D.	S.E.	P	S	I
A	B.T.	3	2.467	0.7432	0.1919			
	A.T.	1	0.8	0.5606	0.1447	0.0001	***	S
B	B.T.	3	2.4	0.8281	0.2138			
	A.T.	3	2.467	0.7432	0.1919	0.75	NS	-

This study shows that highly significant to reduction in *Uttarottar dhatukshaya* of *Shosha* disease.

p value summary = *, S = significance, I – Inference, N.S. = Not Significant, * = Significant

** = More Significant, *** = Highly Significant.

4. Effect of Ashwagandhadi Churna on Shosha w.s.r to Haemoglobin

GROUP	T/t DURATION	MEDIAN	MEAN	S.D.	S.E.	P	S	I
A	B.T.	10.6	10.9	2.216	0.5721			
	A.T.	11.9	11.47	1.346	0.3475	0.0479	*	S
B	B.T.	10.8	10.95	2.316	0.598			
	A.T.	11	10.67	1.866	0.4817	0.6257	NS	-

This study shows that highly significant to hemoglobin in *Shosha* disease.

5. Effect of Ashwagandhadi Churna on Shosha w.s.r to Total Leucocytes Counts

GROUP	T/t DURATION	MEDIAN	MEAN	S.D.	S.E.	P	S	I
A	B.T.	8200	6930	4585	1184			
	A.T.	8400	8607	2433	628.3	0.2195	NS	-
B	B.T.	9800	9600	2135	551.3			
	A.T.	9200	8827	2597	670.5	0.3217	NS	-

This study shows that not significant to TLC in *Shosha* disease.

8. Effect of Ashwagandhadi Churna on Shosha w.s.r to Erythrocytes sedimentation rate

GROUP	T/t DURATION	MEDIAN	MEAN	S.D.	S.E.	P	S	I
A	B.T.	25	25.67	14.49	3.743			
	A.T.	22	22.8	12.96	3.374	0.0028	**	S

B	B.T	30	29.87	10.05	2.595			
	A.T.	28	28.33	7.108	1.835	0.3196	NS	-

This study shows that significant to ESR in *Shosha* disease.

9. Overall effect of *Ashwagandhadichurna* on *Shosha* (Treated group)

Results	Number of patients	Percentage
Not improved	00	00
Mildly improved	01	6.67
Moderately improved	11	73.33
Highly improved	03	20

Above table shows that *Ashwagandhadichurna* moderately effective on *Shosha*.

OBSERVATION & RESULTS:

Trial group 'A' had shown good symptomatically relief. Whereas control group 'B' had shown no relief. No clinical toxicity or side effect had been observed. More than 50% of patients in the entire study were found of 16 to 35 years age group. In this study the patients from male sex group were more (63.33%) than patients of female sex group (36.67%). Out of the patients of present series maximum cases were labor (36.67%) because of malnutrition and economic condition in labors and in service men (23.33%) due to over exertion of mentally and physically. 50% patients from the total cases of *Shosha* were having their illness duration up to 6 month i.e. (53.33%) 30% patients were from 6 to 12 months duration. In the present series most of the patients 30% were from *UpawasaShosha*, 23.33% patients were found from *VyayamShosha*, 16.67% patients were found from *VyavayShosha*. Then 10% were from *Shoka*, 13.33% were from *JaraShosha*, and we did not find patients from *Adwa* and *VranaShosha*. The laboratory investigation was done before after the treatment. Erythrocyte Sedimentation Rate was shows significant result statistically. Total score and percentage of each symptom of all patients of treated group and

control group was evaluated. In treated group In *AshaktiMaithune* relief percentage was 63.89% in *Alpapashekwas* 75%, in *Pradhyansilwas* 66.67%, in *Strastanga* was 82.35%, in *Indriyadaurbalyata* was 65.38%, in *Kampana* was 88%, in *Panduta* was 54.54%, in *Hridspandan* 67.85%, in *Prasuptagatravayava* was 66.67% in discharge from ear, nose, eye was 37.5% in *Shuskaanana* was 72.41%, in *Raktakshaya* was 50%, in lat. chest pain was 37.5% in *KlomaShosha* was 88%, in *Uttarottardhatukshayawas* 73.68%, in *Krushata* was 67.56% in *Prusthakatishulawas* 41.37% and percentage relief of body weight in kg is significant result. The treated group 20% highly improved, 73.33 % were moderately improved, 6.67% were mildly improved and 0 % patient did not respond to the treatment. In control group 7 patients' shows slight response and rest of the patients remain unchanged.

DISCUSSION:

Shosha is a generic term which can be applied to the diseases with wasting of vital principle of the body. The term *Shosha* is mentioned, indicating wasting process of the vital principles of the body and all the functional activities of the body such as *RasadiDhatu*⁵

Initially, there is *Kshaya* of *Rasa Dhatu*, Which results subsequently in the *Kshaya* of each *Dhatu* in series, ultimately causing *Saptadhatukshaya*⁶. *Ativyavaya* over engaged in sexual activity is the principal reason for this type. The *Kshaya* occurs in the reverse manner i.e. *Shukra-Majja-Asthi-Meda-Mansa-Rakta-Rasa*. *Shukrakshya* produces vitiation of *Vata* and this *Vata* makes the body dry and emaciated⁷.

According to modern medicine there is a loss of tissues and wasting of muscles. Even after the development of modern science up to every possible extent, some of the problems still exist as the challenge to the science.

While according to *Ayurveda* in the pathogenesis of *Shosha*, predominance of *Vata* and relating to other *Dosha* vitiated. There is *Dhatukashya* which is related to any etiological cause of *Shosha* caused by excessive *yogatiokriya* and vitiated *Vata*. It is obvious that '*Samprapti*' described in *Ayurveda* is exactly the same what is observed today. Thus the predominance of *Vata* seems to be present in this disease⁸

CONCLUSION

It is concluded that the drug used in this study shows good response by symptomatically as a *Rasayan* and *Dhatu-purtikara*. *Shosha* disease has its own entity. From observation & statistical analysis it is proved that *Ashwgandhadichurna* moderately effective on *Shosha*. (SU.S.Utt.41/42)

LIMITATIONS:

The study was limited to single geographical area. Sample size was very small.

Recommendations for future research

This research work was an honest effort to verify the efficacy of *Ashwgandhadichurna* on *Shosha* but any other view

for further study is humbly recommended. Since being small sample size, this study has its own limitations so need have work in better sample size is required.

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