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Available online www.irjponline.com **Research Article**

ATMAGUPTADI CHURNA AND PSYCHOTHERAPY IN THE TREATMENT OF MANASKLAIBYA (ERECTILE DYSFUNCTION)

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ABSTRACT
Impotence or Erectile Dysfunction is a very common and one of the most distressing ailment in men which reflects its negative stigmas in several forms of social decomposites. As stated in Ayurvedic texts that 'Ahara, Nidra and Brahmacharya / Abrahmacharya' are three basic sub pillars responsible for integrity of Arogya, which is the essential factor for achievement of 'Purusharth-Chatushtayas'.
A single blind clinical study was done in 40 patients selected from the OPD and IPD of Kayachikitsa, S.S.Hospital, Instt. of Medical Sciences, B.H.U., Varanasi by administering Atmaguptadichurna along with Sattvavajaya (Psychotherapy) in one group and in the other group in which only psychotherapy was given.
The observations were obtained on epidemiological, subjective and objective basis and analysed with appropriate statistical methods; the results were obtained and quantified between the groups (Inter group comparison) and within the group (Intra group comparison)
Significant changes were noticed in the symptomatology of the patients regarding reduced penile erection. ($P < 0.001$, $\chi^2 = 17.29$ for group I and $P < 0.001$, $\chi^2 = 10.16$ for group II), low self esteem ($P < 0.001$, $\chi^2 = 24.00$ for group I and $P < 0.001$, $\chi^2 = 10.00$ for group II), level of confidence ($P < 0.001$, $\chi^2 = 20.67$ for group I and $P < 0.001$, $\chi^2 = 11.61$) time taken for ejaculation ($P < 0.001$, $\chi^2 = 24.00$ for group I and $P < 0.001$, $\chi^2 = 10.98$ for group II) GSR ($P < 0.001$, $t = 6.07$ for group I and $P < 0.005$, $t = 0.58$ for group II) HARS ($P < 0.001$, $t = 7.11$ for group I and $P < 0.001$, $t = 3.18$ for group II) HDRS ($P < 0.001$, $t = 7.19$ for group I and $P < 0.002$, $t = 2.64$ for group II) Sexual health Quiz ($P < 0.001$, $t = 5.84$ for group I and $P < 0.005$, $t = 1.89$ for group II).
Keywords: Atmaguptadichuran, Klaibya, Sattvavajaya, HDRS, HARS,GSR

INTRODUCTION

The modern era is changing very fast; the lifestyle, social values, cultural structure, emotional understandings, needs and other social believes have changed and tend to alter at the other moment of life. Stress - physical, chemical, social, economical, emotional etc., regulate the quality of life of an individual. Ayurveda ; the science of life, has strongly proposed principles to live life healthy not only on the earth but to achieve salvation after death. Sexual health is a very Important factor for the integrity of social architecture. "Vajikarana" a specialized branch of Ayurveda incorporates all the dimensions which can ameliorate the complaints of a Human Sex Life.

MATERIALS AND METHODS

The study was conducted after registering of 40 patients in the Dept. of Kayachikitsa, S.S. Hospital, Banaras Hindu University,Varanasi, (U.P.).

Selection of Cases

The patients were selected by applying the suitable inclusion and exclusion criteria as described below and were divided into two clinical groups of 20 patients each.

A. Group I – Treated with Atmaguptadichurna & psychotherapy
B. Group II – Treated with psychotherapy alone

Selection of drugs formulation and Administration

The following herbs were selected for preparation of "Atmaguptadichurna"

Drugs - Useful Parts - Quantity
Ashwagandha (*Withania somnifera*) - Root - one part
Shatavari (*Asparagus racemosus*) – Root - one part
Kapikachhu (*Mucuna prurita*) - Seed - one part
Gokshura (*Tribulus terrestris*) – Fruit - one part
ShwetaMusli (*Asparagus adscendens*) – Root - one part
Jatiphala (*Myristica fragrans*) – Seed - one fifth part

The drug powder 'Atmaguptadichuran' was prepared in the Ayurvedic pharmacy, B.H.U. The patients of group I were advised to take 5gm. of 'Atmaguptadichurna' twice a day along with Navneeta (Butter) and Misri (Candy Sugar) as anupana.

Follow ups: After initial registration three follow ups were taken at 20 days intervals.

Duration

Total treatment duration was sixty days from the day of registration.

Psychotherapy

All the patients were given Psychotherapy (Sex therapy) before treatment and on each follow up in both the groups.

Criteria for Assessment

A. Subjective Criteria

The assessment was done on the basis of cardinal symptoms – Reduced Penile erection, early ejaculation, low self esteem, level of confidence with 0, 1, 2, 3 grades indicating none, mild, moderate, severe.

B. Objective Criteria

The following objective parameters were used to assess the level of stress and performance status were used to record before and after study - Audio-Visual Reaction time, Galavanic Skin Resistance, Hamilton's Anxiety Rating Scale (HARS) and Hamilton's Depression Rating scale (HDRS) and Sexual Health Quiz.

Lab. Investigations

The following investigations were used to assess the biochemical and endocrinal hormonal level before and after study-Fasting Blood Sugar, Post Prandial Blood Sugar, S. prolactin, S. testosterone.

Statistical Analysis

Statistical analysis was done by using mean, standard deviation, standard error; paired't-test', unpaired 't-test',chi-square-χ^2 test to assess the efficacy of the AtmaguptadiChurna.

OBSERVATIONS AND RESULTS

Table 1: Prevalence of ManasikKlaibya (Psychogenic impotence) according to age

Age (yrs.)	Group I		Group II	
	No.	%	No.	%
20-24	4	20	2	10
25-29	11	55	11	55
30-34	4	20	7	35
35-40	1	5	0	0
Total	20	100.00	20	100.00

$\chi^2 = 1.00$, $p > 0.05$ NS

Prevalence according to age – ManasikKlaibya or psychogenic impotence is more prevalent in the age group of 25-29 yrs. (55% in both Group I and II)

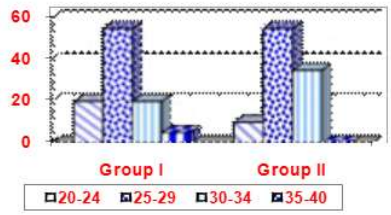

Figure 1: Prevalence according to age (yrs.)

Table 2: Prevalence of ManasikKlaibya (Psychogenic impotence) and education level

Education	Group I		Group II	
	No.	%	No.	%
Junior High School	0	0	0	0
High School/Intermediate	0	0	2	10
Graduate	11	55	10	50
Post Graduate/Professional Course/Higher Studies	9	45	8	40
Total	20	100.00	20	100.00

$\chi^2 = 0.10$, $p > 0.05$ NS

Prevalence according to education level – ManasikKlaibya or psychogenic impotence is more prevalent among graduates. (55% and 50% in Group I and Group II respectively).

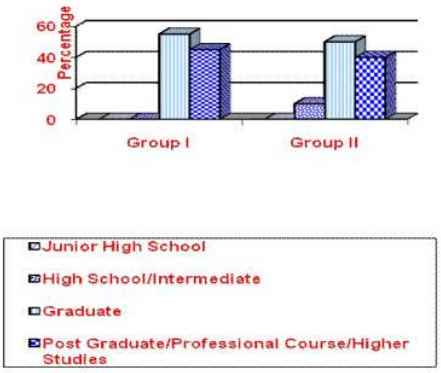

Figure 2: Prevalence according to education level

Table 3: Prevalence of ManasikKlaibya (Psychogenic impotence) and occupation

Occupation	Group I		Group II	
	No.	%	No.	%
Student	4	20	3	15
Service	12	60	13	65
Business	4	20	4	20
Total	20	100.00	20	100.00

$\chi^2 = 0.18$, $p > 0.05$ NS

Prevalence according to occupation – ManasikKlaibya or psychogenic Impotence is more prevalent in service class (60% and 65% in Group I and Group II respectively).

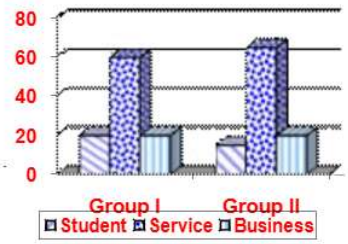

Figure 3: Prevalence according to occupation

Table 4: Prevalence of ManasikKlaibya (Psychogenic impotence) and habitat

Habitat	Group I		Group II	
	No.	%	No.	%
Rural	3	15	3	15
Urban	17	85	17	85
Total	20	100.00	20	100.00

$\chi^2 = 0.0$, $p > 0.05$ NS

Prevalence according to habitat – ManasikKlaibya is more common in urban population (85% in both groups) thanthe rural population.

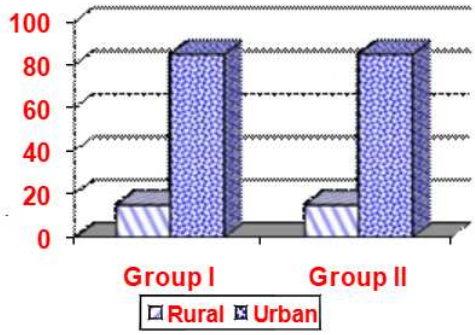

Figure 4: Prevalence according to habitat

Table 5: Prevalence of ManasikKlaibya (Psychogenic impotence) and socio-economic status

Socio-economic status	Group I		Group II	
	No.	%	No.	%
Low income	1	5	2	10
Middle income	16	80	18	90
High income	3	15	0	0
Total	20	100.00	20	100.00

$\chi^2 = 3.45$, $p > 0.05$ NS

Prevalence according to socio-economic status – ManasikKlaibya (Psychogenic impotence) is more common in middle income grade persons (80% and 90% in Group I and Group II respectively).

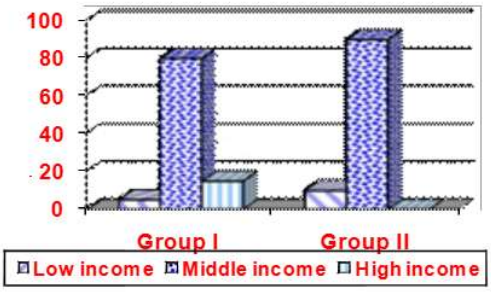

Figure 5: Prevalence according to socio-economic status

Table 6: Prevalence of ManasikKlaibya (Psychogenic impotence) and marital status

Marital Status	Group I		Group II	
	No.	%	No.	%
Married	14	70	17	85
Unmarried	6	30	3	15
Total	20	100.00	20	100.00

$\chi^2 = 1.29$, $p > 0.05$ NS

Prevalence according to marital status – Psychogenic impotence is more common in married men (70% and 85% in Group I and Group II respectively)

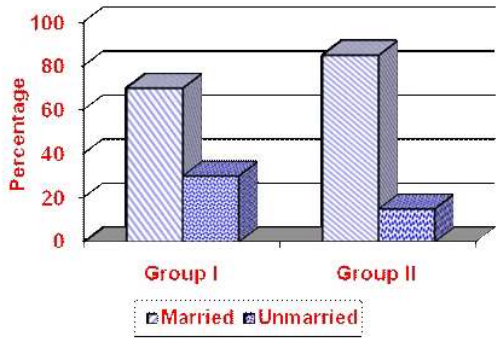

Figure 6: Prevalence according to marital status

Table 7: Effect of treatment on symptom - penile erection

Group	Penile Erection		No. of cases BT	F_1	F_2	F_3	Chi square test BT Vs F_3
I	Normal	No.	2	9	19	15	$\chi^2 = 17.29$
		%	10	45	95	75	$p<0.001$
	Reduced	No.	18	11	1	5	HS
		%	90	55	5	10	
II	Normal	No.	1	8	10	10	$\chi^2 = 10.16$
		%	5	40	50	50	$p<0.01$
	Reduced	No.	19	12	10	10	HS
		%	95	60	50	50	

Effect of treatment on symptom – Penile erection- Before treatment 90% and 95% men were having complaint of reduced penile erection in Group I and Group II respectively, After treatment only 10% ($p < 0.001$) in group I and 50% ($p < 0.01$) in group II have the complaint.

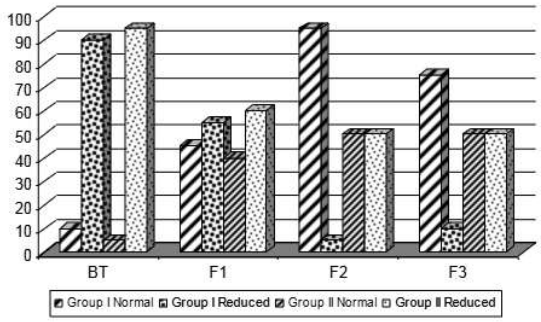

Figure 7: Effect of treatment on symptom - penile erection

Table 8: Effect of treatment on symptom – low self esteem

Group	Low self esteem		No. of cases BT	F_1	F_2	F_3	Chi square test BT Vs F_3
I	Absent	No.	0	5	16	15	$\chi^2 = 24.00$
		%	0	25	80	75	$p<0.001$
	Present	No.	20	15	4	5	HS
		%	100	75	20	25	
II	Absent	No.	0	2	12	8	$\chi^2 = 10.00$
		%	0	10	60	40	$p<0.01$
	Present	No.	20	18	8	12	HS
		%	100	90	40	60	

Effect of treatment on symptom – Low self esteem- before treatment 100% of patients in both groups were affected with low self esteem; But after treatment only 25% ($p < 0.001$) in group I and 60% ($p < 0.01$) in group II were affected.

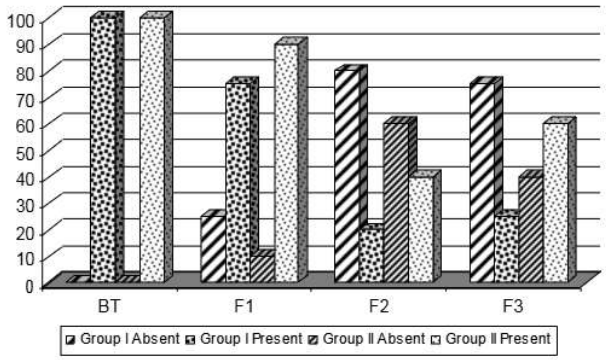

Figure 8: Effect of treatment on symptom – low self esteem

Table 9: Effect of treatment on symptom – level of confidence

Group	Level of confidence		No. of cases BT	F_1	F_2	F_3	Chi square test BT Vs F_3
I	Low	No.	19	8	2	5	$\chi^2 = 20.67$
		%	95	40	10	25	$p<0.001$
	Normal	No.	1	12	18	7	HS
		%	5	60	90	35	
	High	No.	0	0	0	8	
		%	0	0	0	40	
II	Low	No.	20	14	8	11	$\chi^2 = 11.61$
		%	100	70	40	55	$p<0.001$
	Normal	No.	0	6	12	8	HS
		%	0	30	60	40	
	High	No.	0	0	0	1	
		%	0	0	0	5	

Effect of treatment on symptom – Level of confidence- before treatment 95% patients in group I and 100% patients in group II have this symptom. But after treatment only 25% ($p < 0.001$) patients in group I and 55% ($p < 0.001$) of patients in group II were still having the complaint .

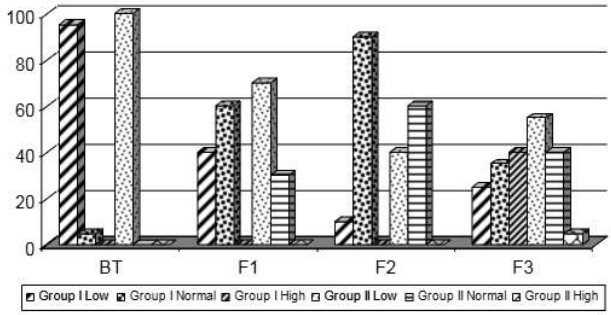

Figure 9: Effect of treatment on symptom – level of confidence

Table 10: Effect of treatment on symptom – time taken for ejaculation

Group	Time taken for ejaculation		No. of cases				Chi square test BT Vs F_3
			BT	F_1	F_2	F_3	
I	Before penetration into vagina	No.	20	13	0	5	$\chi^2 = 24.00$, $p < 0.001$ HS
		%	100	65	0	25	
	Just after penetration into vagina	No.	0	7	14	0	
		%	0	35	70	0	
	Within 2 minutes after penetration	No.	0	0	6	13	
		%	0	0	30	65	
	> 2 minutes after penetration	No.	0	0	0	2	
		%	0	0	0	10	
II	Before penetration into vagina	No.	18	14	10	8	$\chi^2 = 10.98$, $p < 0.001$ HS
		%	90	70	50	40	
	Just after penetration into vagina	No.	2	6	10	8	
		%	10	30	50	40	
	Within 2 minutes after penetration	No.	0	0	0	4	
		%	0	0	0	20	
	> 2 minutes after penetration	No.	0	0	0	0	
		%	0	0	0	0	

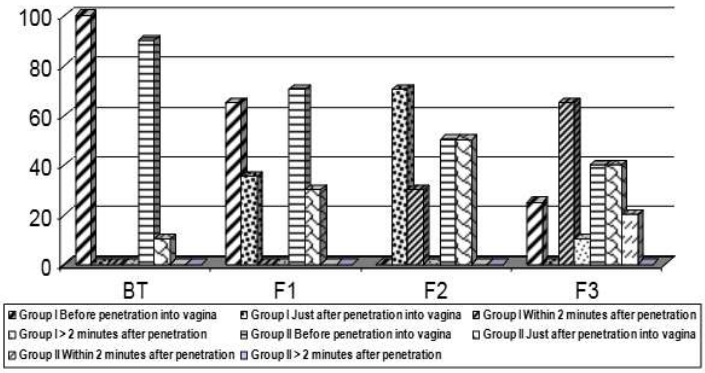

Figure 10: Effect of treatment on symptom – time taken for ejaculation

Table 11: Effect of treatment on Audio Reaction Time

Group	Audio Reaction Time (Secs) Mean ± S.D.				Within the group comparison (Paired t-test) (BT-AT)
	BT	F_1	F_2	F_3	
I	1.19 ± 0.08	1.16 ± 0.09	1.15 ± 0.10	1.15 ± 0.09	0.04 ± 0.08 t=1.93 p>0.05 NS
II	1.17 ± 0.08	1.13 ± 0.06	1.13 ± 0.05	1.10 ± 0.09	0.06 ± 0.11 t=2.48 p<0.05 S

Effect of treatment on Audio Reaction time – The treatment has no significant effect in patients of group I ($p > 0.05$) while it has significant effect in patients of group II ($p < 0.02$)

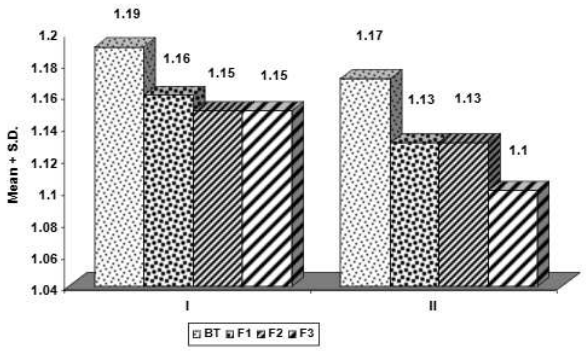

Figure 11: Effect of treatment on Audio Reaction Time (Sec.)

Table 12: Effect of treatment on Visual Reaction Time

Group	Visual Reaction Time (Secs) Mean ± S.D.				Within the group comparison (Paired t-test) (BT-AT)
	BT	F_1	F_2	F_3	
I	0.79 ± 0.12	0.78 ± 0.12	0.78 ± 0.13	0.77 ± 0.13	0.02 ± 0.08 t=0.81 p>0.05 NS
II	0.65 ± 0.05	0.64 ± 0.05	0.63 ± 0.04	0.62 ± 0.04	0.03 ± 0.05 t=2. 58 p<0.02 S

Effect of treatment on visual reaction time – The treatment has no significant effect in group I ($p > 0.05$) but has significant effect in group II patients ($p < 0.02$) patients.

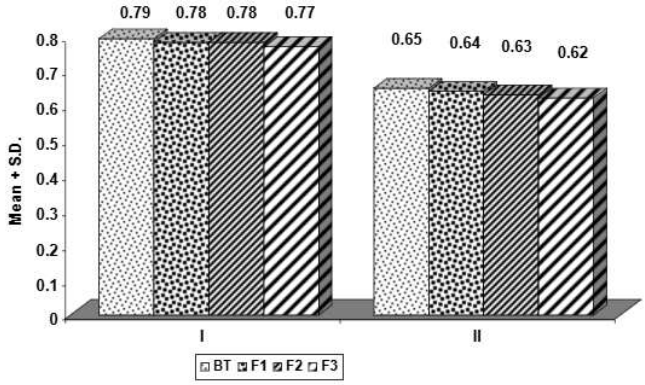

Figure 12: Effect of treatment on Visual Reaction Time (Sec.)

Table 13: Effect of treatment on GSR

Group	GSR (KΩ) Mean ± S.D.				Within the group comparison (Paired t-test) (F_3-BT)
	BT	F_1	F_2	F_3	
I	379.25 ± 80.08	493.80 ± 83.99	569.50 ± 164.63	746.25 ± 274.94	367.00 ± 270.18 t=6.07 p<0.001 HS
II	476.85 ±134.15	477.85 ±159.22	508.70 ±145.11	509.05 ±199.97	32.20 ± 247.74 t=0. 58 p>0.05 NS

Effect of treatment on GSR – The treatment has highly significant effect on GSR in group I patients ($p < 0.001$) while these is no significant effect in group II patients ($p > 0.05$).

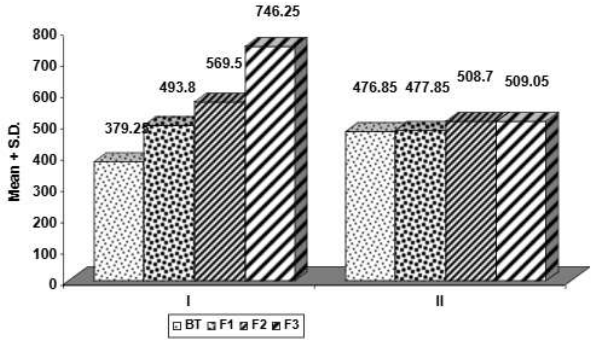

Figure 13: Effect of treatment on GSR (kΩ)

Table 14: Effect of treatment on Hamilton's Anxiety Rating Scale (HAM-A)

Group	HAM-A Mean ± S.D.				Within the group comparison (Paired t-test) (BT-AT)
	BT	F_1	F_2	F_3	
I	36.40 ± 5.32	30.15 ± 6.72	23.85 ± 8.96	18.35 ± 13.11	18.05 ± 11.35 t=7.11 p<0.001 HS
II	36.50 ± 5.21	32.15 ± 5.59	29.95 ± 8.43	29.55 ± 11.64	6.95 ± 9.77 t=3.18 p<0.01 HS

Effect of treatment on Hamilton's Anxiety Rating Scale – Treatment has highly significant effect in group I ($p < 0.001$) & group II patients ($p < 0.01$)

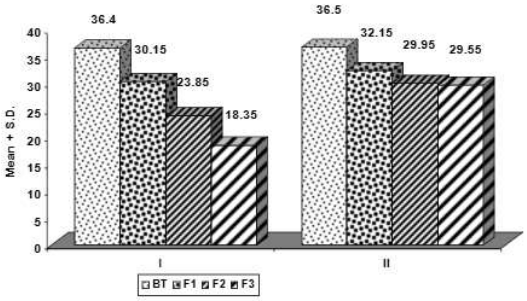

Figure 14: Effect of treatment on Hamilton's Anxiety Rating Scale (HAM-A)

Table 15: Effect of treatment on Hamilton's Depression Rating Scale (HAM-D)

Group	HAM-D Mean ± S.D.				Within the group comparison (Paired t-test) (BT-AT)
	BT	F_1	F_2	F_3	
I	19.05 ± 2.56	14.30 ± 2.75	12.10 ± 4.96	9.75 ± 6.88	9.30 ± 5.79 t=7.19 p<0.001 HS
II	18.45 ± 1.90	15.60 ± 2.23	15.15 ± 3.67	15.30 ± 5.45	3.15 ± 5.33 t=2.64 p<0.02 S

Effect of treatment on Hamilton's Depression Rating Scale – The treatment has highly significant effect in group I ($p < 0.001$) and group II ($p < 0.02$).

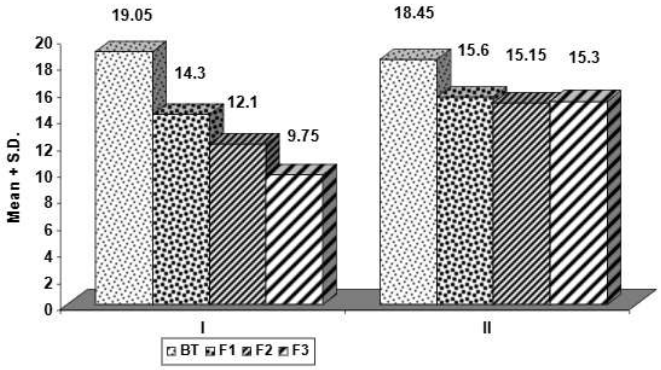

Figure 15: Effect of treatment on Hamilton's Depression Rating Scale (HAM-D)

Table 16: Effect of treatment on Sexual Health Quiz

Group	Sexual Health Quiz Mean ± S.D.				Within the group comparison (Paired t-test) (BT-AT)
	BT	F_1	F_2	F_3	
I	9.70 ± 1.22	12.95 ± 3.36	15.05 ± 4.96	17.90 ± 6.53	-8.20 ± 6.28 t=5.84 p<0.001 HS
II	8.60 ± 1.14	8.50 ± 2.50	10.00 ± 3.73	10.55 ± 4.90	-1.95 ± 4.60 t=1.89 p>0.05 NS

Effect of treatment on Sexual Health Quiz – Treatment has highly significant effect in group I ($p < 0.001$) as compared to group II ($p > 0.05$).

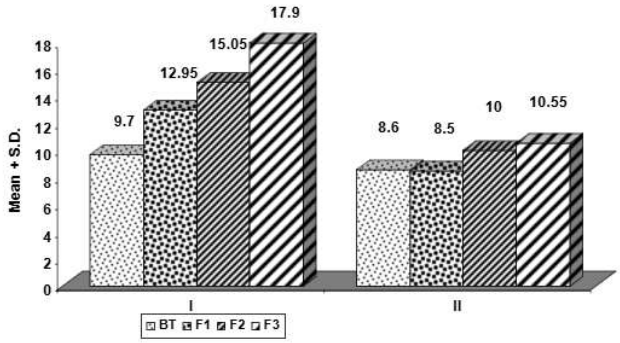

Table 17:

Variables	Between the group comparison on difference (BT-AT) (Unpaired t-test) Group I Vs Group II		
Blood Sugar (Fasting)	t = 0.90	p>0.05	NS
Blood Sugar (Post prandial)	t = 1.28	p>0.05	NS
S. Prolactin	t = 0.16	p>0.05	NS
S. Testosterone	t = 0.25	p>0.05	NS
Audio Reaction Time	t = 0.81	p>0.05	NS
Visual Reaction Time	t = 0.83	p>0.05	NS
Galvanic Skin Response	t = 4.08	p<0.001	HS
HAM –D	t = 3.49	p<0.01	HS
HAM – A	t = 3.31	p<0.01	HS
Sexual Health Quiz	t = 3.59	p<0.01	HS

DISCUSSION

Overall if we see the importance of sexual health, the reasons responsible for breach of sexual health, its consequences in an individual's life then in the society; we find that the Erectile Dysfunction of psychological origin becomes a very important issue to be discussed. Ayurvedic knowledge enforces aholistic and comprehensive approach to manage the problem of Erectile Dysfunction by issuing its principles which maintain the effective modifications and balance through various herbo – mineral substances, psychotherapeutic measures (Sattvavajaya) and life style (Swastha-Vritta and Sadvritta).The aim and objective of the present study was to find out an effective management of Klaibya (Erectile dysfunction) for which "Atmaguptadichurna" made up of Ashwagandha (*Withania somnifera*), Kapikachchu (*Mucuna prurita*), ShwetaMusli (*Asparagus adscendens*), Shatavari (*A. racemosus*), Trikantak (*Tribulus terrestris*), Jatiphala (*Myristica*

fragrans) was developed after careful consideration of Ayurvedic literature. Since the person affected with Erectile dysfunction is mentally unstable and is more anxious, worried, distressed, feared and in confusion, therefore, it is customary to bring him in a state of peace, calm and awareness and for this "Sattvavajaya *i.e.* psychotherapy" in the form of Ashwasana and Sex therapy was employed.The patients were randomly selected after meeting the guidelines of the ethical committee and written consent and suitable inclusion and exclusion criteria. Based on the observations and results of the study it is clear that there is marked change in the symptoms like reduced penile erectile ($p < 0.001$ for group I and $p < 0.01$ for group II), low self esteem ($p < 0.001$ for group I and $p < 0.01$ for group II), level of confidence ($p < 0.001$ for group I and $p < 0.001$ for group II), time taken for ejaculation ($p < 0.001$ for group I and group II). Treatment has also marked change in objective findings of GSR ($p < 0.001$ for group I), HARS ($p < 0.001$ for group I and $p < 0.01$ for group II), HDRS ($p < 0.001$ for group I and $p < 0.02$ for group II), Sexual health Quiz ($p < 0.001$ for group I).

CONCLUSION

Administration of Atmaguptadichurna along with psychotherapy finds its effective management over psychotherapy alone for the management of Erectile Dysfunction. Though psychotherapy alone is also very effective to manage the disease; But the drugs which were used also have multi directional adaptogenic pharmacodynamic properties without significant adverse drug actions. They act by their action not only over "Shukradhatu" but also from the very beginning of 'Aharapaka'; Since the pure. "Rasa dhatu" could be converted to pure "Shukradhatu" during "Aharaparinam" Based on the observation and results the AtmaguptadiChurna is effective in managing the problem of ManasikKlaibya (Psychogenic impotence).

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