



ORIGINAL RESEARCH PAPER

Ayurveda

EFFICACY OF SARASWATA CHURNA IN ANXIETY DISORDER (CHITTODVEGA) IN DIABETES MELLITUS

KEY WORDS: Saraswata churna, Diabetes mellitus, anxiety disorder

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ABSTRACT

Diabetes is a growing problem that poses a major public health challenge globally, stress, psychological factors like (anxiety, emotional, distress, panic disorder etc) are factor that aggravate diabetes mellitus. Chittodvega is more applicable term to illustrate whole anxious state. Therefore, in this study the term 'Chittodvega' is compared with Anxiety Disorder. Saraswata churna as medhya action is helpful in reducing psychotic disorder like stress and anxiety. **Methodology:-** The patients was select on the basis of complaining of psychological type symptoms with known case of type 2 diabetes mellitus and randomly dividing in to two groups, each groups containing samples between the age group of 18-70 years. In Group A – patients on there antidiabetic med –Metformin 1gm daily with Saraswata Churna 10 gm in type 2 DM patients. Group B- patients with there on going antidiabetic medication –Metformin 1 gm daily Saraswata churna with metformin (trial group)is more effective and shows good results than only metformin in treatment of (chittidvega)anxiety disorder type 2 diabetic patient and There is no side effect observed in any patient during study.

INTRODUCTION:

Diabetes is a growing problem that poses a major public health challenge globally, Organization (WHO), over 8 % of the world population (415–420 million people) currently have diabetes. “From the author of Harrison's principles of internal medicine mention in life style management in diabetic care , . Psychosocial assessment and support are critical part of comprehensive diabetic care . It is widely recognized that stress may have negative effects on health of type 2 diabetes mellitus patient.

The mind or manas is considered as Sattva, Rajas and Tama. The entire concept of manas or mind is psychological in nature. The contemporary Ayurvedic psychiatry consists of Ayurvediya Manas Roga Vidyana. Chittodvega (Anxiety) is a psychological characterized by cognitive, somatic, emotional and behavioral components. Chittodvega is more applicable term to illustrate whole anxious state. Therefore, in this study the term 'Chittodvega' is compared with Anxiety Disorder.

Need Of Study:

The main purpose of the research is to study the anxiety and stress level among diabetic patient. Chittodvega is more applicable term to illustrate whole anxious state. Therefore in this study the term 'Chittodvega' is compared with 'Anxiety Disorder' solutions to worsening glycemic control may not be easily identifiable. Depression, anxiety, or "Diabetes Distress," defined by the ADA as "negative psychological reactions related to emotional burdens. in having to manage a chronic disease like diabetes, should be recognized and may require the care of a mental health specialist.”

Emotional stress may provoke a change in behavior so that individuals no longer adhere to a dietary, exercise, or therapeutic regimen. The individual with type-2 DM must accept that he or she may develop complication related to type -2 DM. From above-mention references it is clear that stress and anxiety disorder can affect diabetic patients.

Anxiety Disorder is one of the challenges of mental disorders. Anxiety - a dominant symptom in mental disorders. Sometimes referred as causative factor of mental disorders for example- Unmada (Insanity), Apasmara (epilepsy) etc.

जागरणविषमशरीररूपासानुपसेवमानस्य तथाविधशरीरस्यैव शिप्रं वातः प्रकोपमापद्यते | ३६ | (Ch.Ni 4/36)3

“In Charak Samhita nidan sthan mention in vataj prameha – udvega (anxiety) and shokha (sadness) are the manas hetu of vataj prameha.”

In Ayurved, many Ayurvedic formulations, Yoga & Panchakarma therapies are available for health of mind and it is useful to improve the strength of mind. Saraswata Churna is a unique combination of ayurvedic herbal drugs, Aswagandha, Shankhpushpi & Bramhi – These are best among Medhya drugs, Pippali, Ajamoda, Jiraka, sunthi & Maricha are agnivaradhaka dravya. Kushtha, and Patha, purify the blood (Rakta shodhan) and pacify tridoshas Saindhava lavana, Here the Bramhi is used as decoction for trituration in order to mix the powder of all other drugs. Further the anupana ghrita itself have medhya property, also it detoxifies the toxic effect of Vacha.

Based upon above description of mechanism of action, Saraswata choorna is mentioned in Bhaishajya Ratnavali text in 'Unmada Chikitsa. The saraswata churna is helpful in reducing psychotic disorder like anxiety disorder (chittodvega).

AIMS AND OBJECTIVES:

Aim:

To Evaluate Efficacy Of Saraswata Churna In Anxiety Disorder (chittodvega) In Diabetes Mellitus Patients By Taking Clinical Trial.

Objectives:

To study the efficacy of Saraswata Churna in Anxiety Disorder (chittodvega) in type 2 diabetes mellitus patients.

To observe side effect of drug if any.

Hypothesis-

H₀- Saraswata Churna is not effective in the treatment of anxiety disorder (chittodvega) in diabetes mellitus patients.

H₁- Saraswata churna is effective in the treatment of anxiety disorder (chittodvega) in diabetes mellitus patients.

MATERIALS AND METHODOLOGY:Preparation Of

कषायकटुतिकरुक्षलघुशीतत्यवायव्यायामवमनविरेचनास्थापन-

शिशोविरेचनातियोगसन्धारणानशानाभिधातातपोद्वेगशोकशोणिततिषेक-

Drug:-

Saraswata Churna :

Kustha, ashwagandha, lavana (saindhava) ajamoda, two jiraka, trikatu, patha, sankhapushpi all equal parts and vacha equal to the total of all the above drugs are powdered nicely and soaked in the fresh juice of brahmi and dried; the procedure is repeated thrice. This powder, one aksha (10gms.) in quantity is licked adding anupana as goghrita given for 3 months.

Methods Of Collection Of Data:-

The patients was select on the basis of complaining of psychological type symptoms with known case of type 2 diabetes mellitus and randomly dividing in to two groups, each groups containing samples between the age group of 18-70 years. Hamilton anxiety scale is used to diagnose the generalise anxiety disorder.

In **Group A** – patients on there antidiabetic med –Metformin 1gm daily with Saraswata Churna 10 gm in type 2 DM patients. **Group B** - patients with there on going antidiabetic medication –Metformin 1 gm daily A minimum of 60 patients fulfilling the inclusion criteria were selected for the study from the OPD and IPD of B.V.D.U. Ayurved Hospital, Pune.

Period of study: 90 days with follow up 0,15th, 30th, 60th, 90th DAY

Inclusion Criteria:-

1. Patients from age group of 18 to 70 years, irrespective of gender, religion, occupation, economic status.
2. Patients selected with known case of DM with anxiety disorder (chittodvega).
3. Diabetes Patient with Mild Anxiety Disorder (as per Hamilton Anxiety Scale).
4. Diabetes patients is diagnosed at an HbA1C of greater than or equal to 6.5%.
5. fasting blood glucose of greater than or equal to 126 mg/dl.
6. Diabetes is diagnosed at two-hour blood glucose of greater than or equal to 200mg/dl.

Exclusion Criteria:-

1. Patient with Known case of Ischemic Heart Disease, known case of Cerebrovascular accident.
2. Patient with Known cases of Brain disorders i.e. tumor, Carcinoma of brain, seizures
3. Known cases of Chronic Depression (more than one year).
4. Known cases of severe illness.
5. Diabetic complications Neuropathy, Retinopathy, Nephropathy etc
6. Uncontrolled Diabetes.
7. In exclusion criteria - Following DSM-IV(diagnostic and Statistical Manual of Mental

Disorders, Fourth Edition), diagnoses were used to analyse comorbidity among subjects other anxiety disorder (panic disorder, agoraphobia, social phobia, specific phobia, obsessive-compulsive disorder), depressive disorder (major depression, dysthymia), and substance use disorder (alcohol or illicit drug abuse/dependence) all these are excluded for assessment criteria.

Hamilton Anxiety Rating Scale (HAM-A):

Below is a list of phrases that describe certain feeling that people have. Rate the patients by finding the answer which best describes the extent to which he/she has these conditions. Select one of the five responses for each of the fourteen questions.

range of 0–56

- 0 = Not present,
- 1 =, where <17 indicates mild severity
- 2 = 18–24 mild to moderate severity

- 3 = 25–30 moderate to severe

Subjective Parameters

- Atichintan / Satat chinta
- Anavasthit chittatva (Loss of concentration)
- Bhaya (Fear)
- Rodan (Crying)
- Ekantapriyata (Prefer loneliness)
- Anutsaha (Disinterest)
- Daurbalyam/ klam (General weakness)
- Nidralpata / Nidranash (Insomnia)
- Hritspandan (Palpitation)
- Shirashool (Headache)

Criteria For Assessment: -

The gradation will be given to symptoms as,
 0-None
 1-Sometimes/ at occasions
 2-Often
 3-Always

1) Statistical Method Used In The Study:-

- Wilcoxon test
- MannWhitney u test
- Paired t test
- Two sample t test

- OHA in both Groups A and B Metformin as OHA is same

The study was conducted under 2 groups

GROUP	A(trial group)	B(control group)
NO. OF PATIENTS	30	30
DRUGS	Metformin with Saraswata churna	Only Metformin
DOSES	1. Saraswata churna - 1-karsha (10 gms) a day After Food 2. Metformin 1gm Daily in divided dose AFTER MEAL (as per schedule)	1gm Daily in divided dose (AFTER MEAL) (as per schedule)
ROUTE OF ADMINISTRATION	Oral	Oral
ANUPAN	Goghrita (1/2tola=6gm) and	Water
TREATMENT PERIOD	90 Days	90 days
CLINICAL FOLLOW UP	0, 15th, 30th, 60th, 90th DAY	0, 15th, 30th, 60th, 90th DAY

Observations:

Comparison Of Group A And Group B In The Management Of Anxiety Disorder (chittodvega) In Diabetes Mellitus Patientss.

parameter	Group	% of Improvement	Mann whitney u	z	p value
ATICHINTAN/S ATAT CHINTAN	Group A	97.56%	420	0	0
	Group B	94.44%			
ANAVASTHIT CHITTATVA	Group A	93.94%	435	-0.5874	0.55694
	Group B	90.70%			
BHAYA	Group A	100.00%	435	-1	0.31731
	Group B	96.88%			
RODAN	Group A	93.75%	450	0	1
	Group B	93.55%			
EKANTAPRIYA TA	Group A	86.27%	338	-1.988	0.04681
	Group B	73.77%			
ANUTSAHA	Group A	93.55%	450	0	1
	Group B	90.48%			

parameter	Group	% of improvement	Mean ± SD	t	p value
DAURBALYAM/KLAM	Group A	86.44%	397	-1.0154	0.30991
	Group B	81.97%			
NIDRALPATA/NIDRA NASH	Group A	77.97%	369	-1.347	0.178
	Group B	71.43%			
HRIDAYASPANDAN	Group A	75.00%	449.5	-0.024	0.981
	Group B	40.00%			
SHIRSHOOL	Group A	89.47%	245	-3.6	0
	Group B	68.92%			

1) Atichintan:-

Atichintan/Satat Chintan

P- Values shows that both drugs are significantly effective on Atichintan in anxiety disorder (chittodvega) but percentage improvement saraswata churna with metformin shows more improvement than only metformin. The prabhava of saraswata churna is medhya, and chinta is one of the causes of rasa dhatu dushti .katu tikta rasa of drugs increases agni by its deepan pachan action it causes proper rasadi dhatu formation due to this it reduces the above symptoms.

2) Anavasthit chittatva –LOSS OF CONCENTRATION

As p value>0.05 there was no statistical significant difference between Group A and Group B on ANAVASTHIT CHITTATVA But as percentage of improvement in Group A(trial group) is more effective as compared to Group B(control group) Saraswatachurna having medhya rasaya drugs act as a memory enhancer and. Shankhpushpi & Bramhi,Vacha, Aswagandha help to ensure the better nourishment of brain tissues. due to this it reduces the above symptoms.

3) Bhaya –

As p value>0.05 we found that there was no statistical significant difference but percentage of improvement between in Group A(trial group) is more effective as compared to Group B(control group), Since it aggravate tamoguna and vata kapha guna in the body so saraswata churna with katu rasa Madhur vipak and usna virya and removes avaran of kapha & tama guna reduces raja guna by vata shaman which causes diminished hrudaya dushti and oja dushti, also bhaya is one of the causes of rasa dhatu dushti in manas vikar .katu tikta rasa of drugs increases agni by its deepan pachan action it helps proper rasadi dhatu formation due to this it reduces the above symptoms.

4) Rodan :-

As p value>0.05 we found that there was no statistical significant difference but percentage of improvement between Group A(trial group) is more effective as compared to Group B(control group) .

5) Ekantpriyata:-

As p value>0.05 we found that there was no statistical significant difference but percentage of improvement between in Group A(trial group) is more effective as compared to Group B(control group) .Due to saraswata churna medhya prabhava patient tendency to prefer loneliness is decreased and they began to mix up in society, family.

6) Anutsaha:-

As p value>0.05 we found that there was no statistical significant difference between But as percentage of improvement seen Group A 93.48% was more than Group B 90.55% hence we can say that saraswata churna with metformin is more effective in anxiety disorder (chittodvega) in type 2 diabetes mellitus patients. And as drugs act as medhya it improves the activity , enthusiasm in body, utsaha

and try to interact with people more.

7) Daurbalyam:-

As p value>0.05 we found that there was no statistical significant difference but percentage of improvement between Group A(trial group) is more effective as compared to Group B(control group) .

brahmi drug Madhur rasa, sheet virya of drug it acts as dhatu prasadhan and balya goghrita is also acts as a catalyst and having self properties of dhatu poshan and bruhan.help in reducing symptoms.

8) Nidralpata/Nidranash:-

As p value>0.05 we found that there was no statistical significant difference but percentage of improvement between Group A(trial group) is more effective as compared to Group B(control group) . On NIDRALPATA/NIDRANASH .Medhya rasaya drugs helps in Anxiety and helps to settle anxious mind calm state .katu, tikta rasa of drugs increases agni by its deepan pachan action it causes proper rasadi dhatu formation due to this it reduces the above symptoms. Brahmi which is used as sedative agent. Sheeta Veerya and Shthira Guna of this dravya stabilizes the Mana by reducing Raja dosha. Reduction in raja dosha is helpful for proper sleep.

9) Hridayaspandan

As p value>0.05 we found that there was no statistical significant difference between Group A and Group B But as percentage of improvement seen in Group A (trial group) 75% was more than Group B(control group) 40% hence we can say that saraswatachurna with metformin is more effective as compared to only metformin on HRIDAYASPANDAN. this patients was found due to anxious state of mind as chinta is causative factor of rasadhata dushti moolsthan of rasa dhatu is Hrudaya so Hritspandan lakshana is seen saraswata churna increases agni due to its proper ahar rasa is formed causing rasa dhatu poshan thus shows Upashaya in symptom Hritspandan.

10) Shirshool:-

As p value>0.05 we found that there was no statistical significant difference but percentage of improvement between Group A(trial group) is more effective as compared to Group B(control group) .Saraswata churna due to its karma prabhav, deepan, pachan, nidrajanan properties help in reducing the symptoms of shirshool.

DISCUSSION:

1. Effect of therapy :

From the observation and statistical analysis we have analysed that from all subjective parameter ATICHINTAN , EKANTAPRIYATA AND SHIRSHOOL - there p value<0.05 we found that there was statistical significant difference between Group A(trial group) and Group B(control group).

Also we get percentage of improvement in Group A(trial group) was more than Group B(control group) analyzed, it is observed that Atichintan (97.56%), Anavasthit Chittatva (93.94), Bhaya, (100%), rodan(93.75%), Ekantapriyata(86.27), Anutsaha(93.55%) Daurbalya (86.44%), Nidralpata (77.97%), (100%), Angmarda(100%), Hridayaspandan (75%), shirshool (89.47%).

Also as per Hamilton anxiety scale it is observed that maximum number of patient in each group are mild in severity. Anxious mood, tension- uncontrolled diabetes, intellectual-Difficulty in concentration, poor memory, depressed mood- lack of interest ,headache all these symptoms were seen to be reduced after treatment in the patients.

From the above observations the total effect of trial group (

saraswata churna with metformin), it reduces the symptoms of chittodwega-generalize anxiety disorders.

So we concluded that from all subjective parameters saraswata churna works effectively on- ATICHINTAN, EKANTAPRIYATA AND SHIRSHOOL, hence we can say that saraswata churna is effective in treatment of anxiety disorder (chittodwega) in type 2 diabetes mellitus patients.

Mode Of Action Of Drug:

Saraswata Churna is a unique combination of ayurvedic herbal drugs, containing mainly three category of drugs namely Medhya Rasayana, Vacha, Shankhpushpi, Aswagandha, Bramhi. Rasayana that acts at the level of Agni-Pipali, Ajmoda, Jiraka, Maricha, and drugs that spread the active principles of all other drugs all over the body-Saindhava lavana along with Raktshodhak dravyas -, Kushtha & Patha.

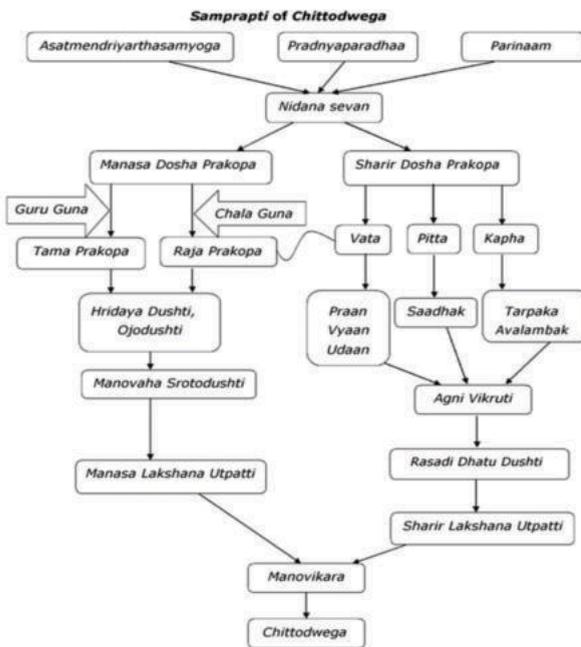
As it is shita in virya, madhura in vipaka and medhya in prabhava, it potentiates the effect of drug and reduces the tikshna property of Vacha. Further the anupana ghrita itself have medhya property,

treatment of (chittodwega) anxiety disorder type 2 diabetic patients Among various psychological disorders described in Ayurveda, Chittodwega is the one which can be correlated clinically to Generalized Anxiety Disorder.

There is no side effect observed in any patient during study.

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Samprapti Bhang of Chittodwega

Saraswata churna are katu, tikta Rasapradhan, madhur Vipaki and Laghu, ruksha and tikshna Gunatmaka. it removes avaran of kapha & tama guna reduces raja guna by kaphata and vata shaman which causes diminished hrudaya dushti and oja dushti Tikta rasa and Madhur Vipaka shows Deepana and Pachana action which leads to Agnivruddhi. It causes Samyak formation of Aahararasa and Saptadhatu which leads to Ojovruddhi.

Medhya action is observed in Brahmi, shankhpushpi, aswagandha, vacha with there Hrudabalya action reduces Hrudayadushti and Ojodushti which leads to fomation of Prakruta Oja. Aavarana of Manovaha Srotas formed by Kapha vata pradhan Dosha is eliminated by Katu, Tikta Rasa.

Goghrita increases Satva Guna and produces Manosthairya. Goghrita also helps to increase Smruti and Oja. Hence it reduces Anxiety disorder. (chittodwega)

CONCLUSION:

Saraswata churna with metformin (trial group) is more effective and shows good results than only metformin in