



A CLINICAL STUDY ON THE EFFECT OF DEVADALIPHALA NASYA ON KAMALA WITH SPECIAL REFERENCE TO HEPATIC JAUNDICE

Dr. Raju Bind^{*1}, Dr. Nikunj Thakkar² and Dr. H. N. Soni³

¹P.G. Scholar, Department of Kayachikitsa, Parul Institute of Ayurveda, Parul University, Tal. Waghodia, Dist. Vadodara, Gujarat, India.

²Assistant Professor, Department of Kayachikitsa, Parul Institute of Ayurveda, Parul University, Tal. Waghodia, Dist. Vadodara, Gujarat, India.

³Professor, Department of Kayachikitsa, Parul Institute of Ayurveda, Parul University, Tal. Waghodia, Dist. Vadodara, Gujarat, India.

***Corresponding Author: Dr. Raju Bind**

P.G. Scholar, Department of Kayachikitsa, Parul Institute of Ayurveda, Parul University, Tal. Waghodia, Dist. Vadodara, Gujarat, India.

Article Received on 20/04/2018

Article Revised on 11/05/2018

Article Accepted on 31/05/2018

ABSTRACT

Kamala is rakta pradosaja vikara, where there is aversion towards all desires. Two types of Kamala are mentioned in Ayurveda classics viz- Koshthashakhashrita Kamala and Shakhshakhashrita Kamala. Koshthashakhashrita kamala is characterised by Peet netra, peet mutra, Twaka, varchas, Daurvalya, Aruchi, Agnimandhya, jwara, Chardi, Daha, Avipaka and Hatendriya. Conventional or synthetic drugs used in the treatment of liver diseases are inadequate and sometimes can have serious side effects. In absence of a reliable liver protective drug in modern medicine, there are number of medicinal preparations in Ayurveda recommended for the treatment of liver disorders. Jaundice is also a common liver disorder which is observed in good amount of patients in the routine medical practice. It is included under Pittaja and Raktaja Rogas, as a complication of Pandu Roga when it is treated improperly. Vagbhatt also have stated that if Pitta dominant person indulges in Pitta Prakopaka Ahara and Vihara, then there is possibility of Svatantra manifestation of Kamala. Considering all these the present study was under taken to evaluate the efficacy of Devadaliphala nasya in management of Koshthashakhashrita Kamala.

KEYWORDS: Koshthashakhashrita Kamala, Devadaliphala nasya.

INTRODUCTION

“Medicine is one of the pillars of peace”. From time immemorial man has been interested in trying to control diseases. The medicine man, the priest, the herbalist and the magician, all undertook in various ways to cure man's disease and to bring relief to the sick. In the course of its evolution and explosion of knowledge during the 20th century has made medicine more complex. Liver diseases are still a worldwide health problem. Unfortunately, conventional or synthetic drugs used in the treatment of liver diseases are inadequate and sometimes can have serious side effects.^[1] In absence of a reliable liver protective drug in modern medicine, there are number of medicinal preparations in Ayurveda recommended for the treatment of liver disorders.^[2] Jaundice is also a common liver disorder which is observed in good amount of patients in the routine medical practice.

Kamala is the disease which is characterized by yellowish discoloration of eye balls, skin, face, nails and urine associated with constitutional symptoms like loss of appetite, low grade fever and malaise. It is included

under Pittaja and Raktaja Rogas, as a complication of Pandu Roga when it is treated improperly.^[3] Vagbhatt also have stated that if Pitta dominant person indulges in Pitta Prakopaka Ahara and Vihara, then there is possibility of Svatantra manifestation of Kamala. According to Sushruta, after relief of any disease, if an individual consumes Amla, Tikshna, etc Pitta Vardhaka Ahara may lead to initiation of Kamala.^[4]

Prevalence of Jaundice is 1.08% to 2.72% globally, the frequency being similar in males and females. An estimated 3 to 4 million people are infected with the virus each year worldwide. Every 15th carrier is an Indian, which results in about 12.5 million sufferers in India.

Even though Viral Hepatitis is considered as self limiting disease, the need for effective management cannot be underestimated as it can cripple the individual for weeks or months and have a great impact on health and productivity, as this disease usually occurs in epidemic form in India. Hence, an effective management of

Hepatic jaundice which can minimize the complication and decrease the duration of illness; is required.

Kamala is a Pitta Pradhana and Rakta Pradosaja Vikara.^[2] Two types of Kamala are mentioned in Ayurveda classics viz Koshthashakhashrita Kamala and Shakhshrita Kamala.^[3] Koshthashakhashrita Kamala is characterized by Peet Netra-Mutra-Twaka-Varchas, Bheka Varna and Hatendrya.

Koshthashakhashrita Kamala can be correlated to hepatic jaundice of western system of medicines among different varieties of Hepatic jaundice.

The treatment modalities described in Ayurveda for Koshthashakhashrita Kamala include both Shodhana and Shamana. Among different varieties of Shamana Aushadhis, the formulations which possess Pitta Rechana, Rakta Shodhana, Yakrit Uttejaka, Daha Prashamana, Jwaraghna, Rasayana and Balya properties are specifically required. As far as modern management of Jaundice is concerned, it is cause relative treatment. The supportive therapies like fluid and electrolyte management, bed rest, abstinence from alcohol, steroids etc are used as per the aetiology revealed for the disease. Therefore, this common disorder still requires a satisfactory regime which can help in the reduction of surgery or a better relief in the severity of the disease. Ayurveda advocates many options for the treatment of Kamala and one of them is-

Devadali phalaraso Nasyato Hanti Kamalam| Sandeho Naatra Samphulla nilotpala vilochane||6

This means – there is nothing unsure while treating Kamala by Nasya of Devadali Phala Rasa. Devadali Phala is easily available drug and it also has low cost which favours all patients as well as Nasya of Svarasa can be easily administered.

Prof. S.K. Tiwari et al, in their research study concluded that Nasya of Devadali Phala in treatment of hepatitis induced jaundice was found highly beneficial. They also concluded that cold infusion of fruit of *Luffa echinata* (commonly called Devadali Phala Nasya), if given through nasal route once or twice helps in decreasing Bilirubin and Alkaline Phosphates level in liver function test (LFT) besides curbing hepatomegaly (enlargement of liver), conditions associated with Hepatitis induced jaundice.^[7] In another study it was concluded that Devadali Nasya is highly beneficial in Koshthashakhashrit Kamala, It is more beneficial in recent onset of Kamala and Mass study is required to standardize the above results.^[8]

One other study conducted on Devadali also revealed that the different extracts of the fruits of *Luffa echinata*. (Cucurbitaceae) tested for their hepatoprotective activity against CCl₄ induced hepatotoxicity in albino rats. The degree of protection was measured by using biochemical parameters like serum glutamic oxalacetic transamines

(SGOT), serum glutamic pyruvate transaminase (SGPT), alkaline phosphates (ALKP), total protein (TP) and total albumin (TA). The petroleum ether, acetone and methanolic extracts showed a significant hepatoprotective activity.^[9]

Devadali Phala Rasa Nasya has been evaluated for their clinical efficacy in Hepatocellular jaundice and found to have hepatoprotective, anti-inflammatory, hepatotonic, anti-hepatotoxic and anti-viral properties.^[10] The effect of Devadali phala rasa nasya has been established.^[11]

Apart of above mentioned studies, no work has been conducted on efficacy of Devadali Phala Swarasa Nasya in the management of Hepatic Jaundice. Therefore, for the present study drug Devadali was selected with following aims and objectives:

AIMS AND OBJECTIVES

Aim

- To evaluate effect of Devadali (*luffa echinata*) Phala Swarasa Nasya in the management of Koshthashakhashrit Kamala.

Objectives

- To study the disease Kamala with its aetiopathology and symptomatology as per Ayurvedic as well as modern literature.
- To assess hepato-protective activity of Devadali Phala.
- To understand probable mode of action of Devadali Phala Svarasa Nasya in the management of Kamala.

Hypothesis

- H₀ - Devadali Nasya is not effective in the management of Kamala.
- H_a - Devadali Nasya is effective in the management of Kamala.

MATERIALS AND METHODS

- **Literary source:** All the Ayurvedic, modern literatures and contemporary text including the journals & internet source about the disease and drugs will be reviewed and documented for the intended study.
- **Sample source:** Patient will be selected randomly from OPD, IPD of PG studies of Kayachikitsa Department of PARUL AYURVED HOSPITAL and other referrals.

Method of data collection

- **Patients:** 30 patients fulfilling diagnostic and inclusion criteria will be selected for the present clinical study.

Study design

Single group open clinical trial will be done for the present clinical study.

Drug administration and Posology

- Devadali Phala Swarasa 8-10 drops will be given into each nostril.
- Total duration of treatment will be of 9 days.
- Nasya will be given on every third day.
- Nasya will be administered in early morning after light breakfast.
- Patient will be observed up to the duration of 9 days.

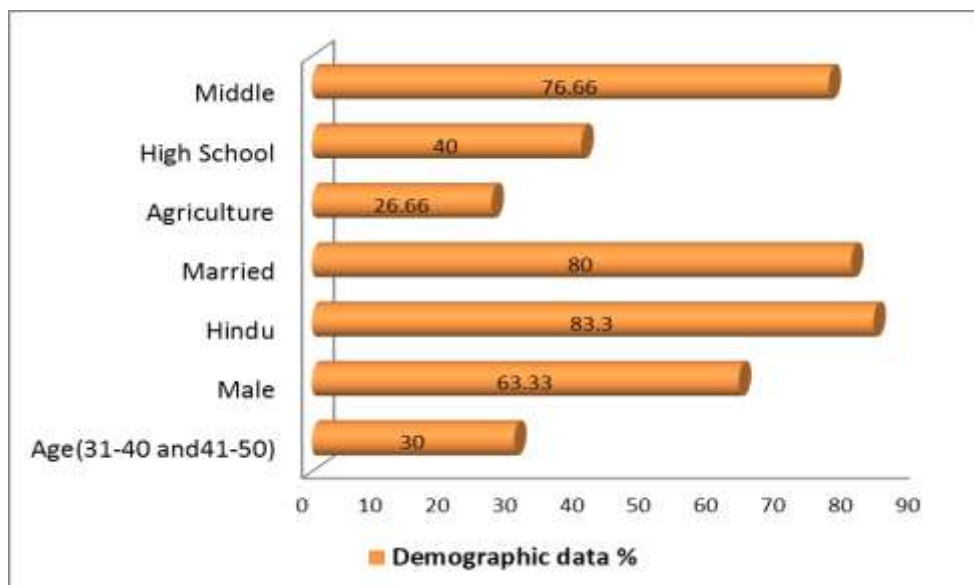
Follow up study

- Follow up study will begin on the 15th day of therapy.

- All relevant haematological, urine and other examinations which were carried out before starting the treatment will be repeated to assess the final effect of the therapy.

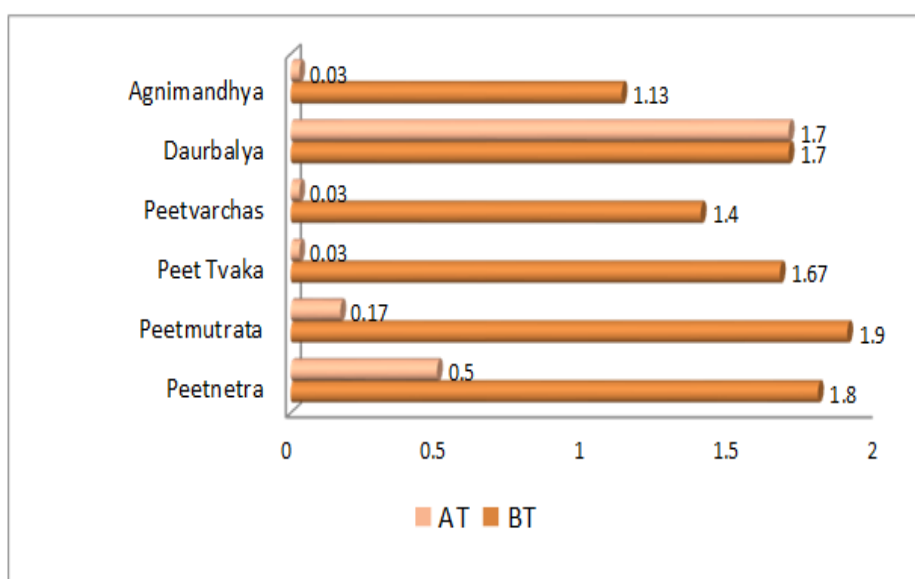
OBSERVATION AND RESULT

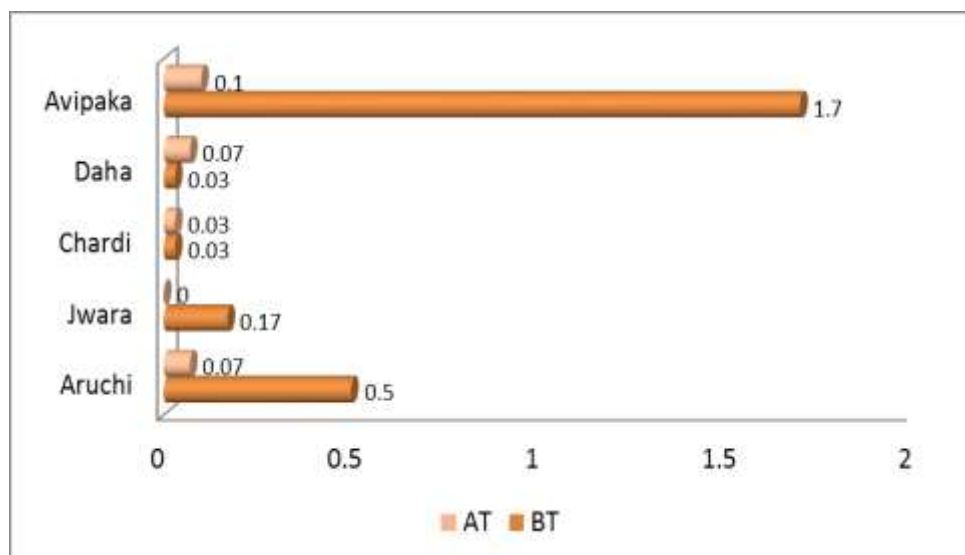
For the present study 30 patients who fulfilled criteria for diagnosis and inclusion were selected the study and Devadaliphala Nasya was administered as a therapy to rule out its efficacy in Koshthashakhashrita Kamala. The obtained results are presented below:

**Demographical Data**

The observation regarding the socio economic status in this study showed that majority of them belonged

to middle class family i.e, 23(76.66%) subjects, 5(16.66%) belonged to lower middle class, 2(6.66%) belonged to Upper middle family.

Subjective parameter



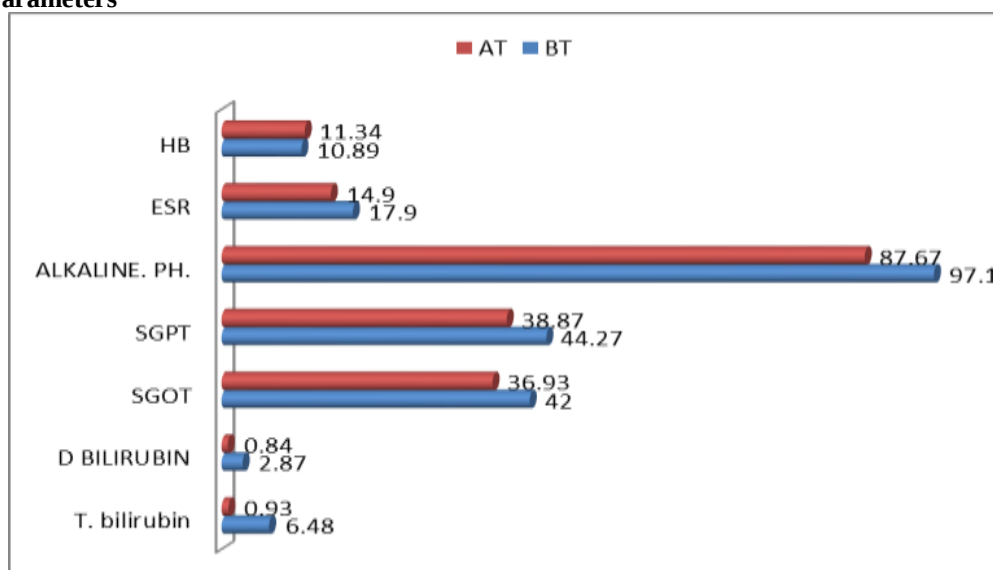
	BT	AT	%	SD	SE	T value	P value	Remark
Peetnetra	1.80	0.50	72.22	0.535	0.0977	13.310	<0.001	HS
Peetmutrata	1.90	0.17	91.05	0.450	0.0821	21.108	<0.001	HS
Peet Tvaka	1.67	0.03	98.20	0.556	0.102	16.089	<0.001	HS
Peetvarchas	1.40	0.03	97.85	0.765	0.140	9.786	<0.001	HS
Daurbalya	1.70	1.00	41.17	0.669	0.122	13.379	< 0.050	IS
Agnimandhya	1.13	0.03	97.34	0.759	0.139	7.940	<0.001	HS
Aruchi	0.60	0.07	88.33	0.900	0.164	3.247	0.003	S
Jwara	0.83	0.00	100.0	0.874	0.160	5.221	<0.001	HS
Cchardi	0.43	0.03	93.02	0.724	0.132	3.026	0.005	IS
Daha	1.13	0.07	93.80	0.740	0.135	7.899	<0.001	HS
Avipaka	0.60	0.10	100.0	0.731	0.133	3.746	<0.001	HS

Subjective Parameters

The statically analysis in Peet Netrata 25.9% and which was highly significant,(P value0.001), Peet Mutrata was reduced by 6.88%, and which was highly significant, (P value0.001), Peet Twaka was reduced by 98.2% and which was highly significant,(P value0.001), Peet Varchas was reduced by 97.8% and which was highly

significant,(P value0.001), Daurbalya wase reduced by 39% and which was insignificant,(P value0.050), Agnimandhya was reduced by 97.3% and which was highly significant,(P value0.001) Also Jwara 100%, Daha 94.6% and Aruchi 90% were reduced, and which were highly significant,(P value0.001). Chhardi was reduced by 93.2% and which was significant.

Objective Parameters



	BT	AT	%	SD	SE	T value	P value	Remarks
T. BILIRUBIN	6.48	0.93	88.73	2.732	0.499	11.127	<0.001	HS
D BILIRUBIN	2.87	0.84	70.73	2.764	0.505	9.994	<0.001	HS
SGOT	42.00	36.93	12.07	17.745	3.240	1.564	0.129	IS
SGPT	44.27	38.87	12.19	8.561	1.563	3.455	0.002	S
ALKALINE. PH.	97.10	87.67	9.71	19.388	3.540	2.665	2.665	IS
ESR	17.90	14.90	82.24	4.756	0.868	3.455	0.002	S
HB	10.89	11.34	4.00	0.524	0.0956	-4.706	<0.001	HS
TLC	62263.33	61056.67	1.93	4345.74	793.42	1.521	0.139	IS

Total bilirubin in this study was reduced 84.64%, and which was highly significant (P value 0.001) Direct bilirubin was reduced by 71.08% which was highly significant (P value 0.001), SGOT was reduced by 12.07% which was insignificant, SGPT was reduced by 12.20% and was significant. Alkaline PH was reduced by 9.72% it was insignificant, ESR was reduced by 16.75% was significant, HB was increased by 4.1%, p value 0.001 was showing highly significant. TLC was reduced by mean of 1.93% that was insignificant.

DISCUSSION

Koshthashakhashrita Kamala is defined as a Kamala which has taken Ashraya in koshta and shakha. The term Koshta means Mahasrotas. Here Koshta is considered as Yakrit as it is one among the 15 Kosthans. The term shakha refers to Raktadi Dathu and Twak. In this context shakha can be taken as Rakta Dhatu. Ashrita means one which depends/ that takes shelter. It can be understood as ranjaka pitta which has taken shelter in shakha. The above definition suggests that, the Koshthashakhashrita Kamala includes the jaundice caused by different haemolytic pathologies and hepatocellular damage. There are three recognized causes of hepatocellular damage viz- infections, alcoholic and drugs. Among these three, infective hepatitis is most prevalent cause of jaundice. The term viral hepatitis is used synonymously with infectious hepatitis. Hence in this study the scope and description of Koshthashakhashrita Kamala is a disease in which liver is inflamed and infection hyperbilirubin.

CONCLUSION

Ayurvedic literatures of kamala is described a Pitta dominating liver disease. Charaka describes that Kamala is a predominant stage of Pandu. Harita has considered it as a type of Pandu roga, but Susruta has mentioned it as a complication of Pandu roga as well as other disease also where Vagbhata also described it as a separate disease. Due to a Pitta dominant disease Pitta shamak treatment is given. In modern refers to the condition which effects the luster of the body due to discoloration excessive bile pigmentation and which impairs the complexion of skin, resulting in yellowish discoloration of the bile (Pitta) into blood, so in the treatment hepatoprotective drug along with Virechana therapy is given.

REFERENCES

1. Yadavji Trikamji Acharya editor. Charaka samhita. Varanasi: Choukamba Sanskrit Sanstha, 2008; 533-535.
2. Guntupalli M. Hepatoprotective effects of rubiadin, a major constituent of *Rubiadifolia* Linn. J Ethnopharmacol, 2006; 103: 484-90.
3. Chatterjee TK. Medicinal plants with hepatoprotective properties. In: Herbal Options. 3rd ed. Calcutta: Books and Allied (P) Ltd, 2000; 135.
4. Charaka Samhita Chikitsa Sthana, chapter 16/34, vidyotini commentary.
5. <http://timesofindia.indiatimes.com/city/bangalore.http://www.ncbi.nlm.nih.gov/pmc/articlesandhttp://nmji.in/archives>
6. Dr. Indradev tripathi vaidyajeewanam lolimbaj hindi tika chaukhambha 1978 prakashana.
7. Roche SP, Kobos R. Jaundice in the Adult Patient Am Fam Physician., 2004 Jan 15; 69(2): 299-304.
8. Davidson's Principles and practices of Medicine, edited by Christopher Hostel, Edwin R Chilvers, Nicholas A Boom, Nicki R College, 15th Edition.
9. Journal of Enthopharmacology, July 2001; 76(2): 187-189.
10. <http://timesofindia.indiatimes.com/city/varanasi/Herbs-could-be-effective-in-jaundice-high-BP-BHU-study/articleshow/9127192.cms>
11. The Effect of Devadali Nasya in Jaundice (Kamala), Dr.D.G. DIPANKAR, M.D., (Kayachikitsa), Banaras Hindu University, Associate Professor, Pad. Dr. D. Y. Patil College Of Ayurveda, Pimpri, Pune.