

## DEMOGRAPHICAL STUDY OF ETIOLOGY AND CLINICAL PRESENTATION OF KAMALA W.S.R.TO KOSHTHASHAKHAASHRIT KAMALA

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### ABSTRACT

Etiological oriented treatment of any ailment is the ultimate and eternal therefore the knowledge of causative factors are very important for clinicians. Those causative factors of *koshth-shakhashrit kamala* are described in ancient science have not equal capacity to cause the disease. In this research work, basically four kinds of etiology are illustrated, among of them *aharaj nidan* is the strong and principle *nidan*. Others *nidans* like *viharaj* and *manshik* are the supporting and aggravating type of *nidans*. The *nidanarthkar nidan* is not an independent *nidan* of *kamal* rather it is complication of disease. The clinical presentation of *koshth-shakhashrit kamal* is depends upon several factor like strength, quantity, intake duration of *nidan* and physical and mental strength of patient etc. also important. All sign and symptoms of *kamala* does not appear in every patient but some features are appears in all most case which are known as cardinal sign and symptoms of *kamala* disease such as *haridravarana* (yellowish discolouration).

**Keywords:** *koshth-shakhashrit kamala, aharaj, viharaj, manshika, nidanarthkar nidan,*

### INTRODUCTION

The lack of knowledge of etiological factors, radical treatment and management of ailments are not possible. Because removal of causative factors is the ideal treatment of any disease<sup>1</sup>, it is possible only when the etiology of ailment is known. In Ayurvedic text, *kamala* has been classified in several groups on the account of various objectives but account of etiology and pathology are important among them that are *swatantra* (independent) *kamala* and *partantra* *2kamala* (de-

velops as a complication of ailment), *koshtha-ashrit* and *shakha-ashrita kamala*<sup>3</sup>.

The clinical presentation of ailment and its etiology has mutual correlation; it means causative factors play very important role in appearance of sign and symptoms disease. This appearance is based on *prakriti-samsamvay* and *vikriti-vishamsakvaya* theory<sup>4</sup> of ancient science.

### AIMS AND OBJECTIVES:

This demographical study was done with following objectives:

1. To make available a etiological strength based data in development of *koshth-shakhashrita kamala*.
2. To established a perfect relationship in etiology and clinical presentation of ailment.
3. To uphold a liaison in ancient and modern view about

**MATERIAL AND METHODS:**

**Selection of patients:-**

On the basis of inclusion criteria, 32 patient of kamala were registered from O.P.D. & I.P.D. of National Institute of Ayurveda, Jaipur, Rajsthan, who were clinically found appropriate for *upshayatmak* and demographical study.

**Inclusion criteria:**

1. All patients with clinical manifestation of kamala roga were selected.
2. Age of patient in between 10 to 70 years.
3. Either sex.

**Exclusion criteria:**

1. Jaundice patient with liver failure, ascites, kernicterus, post-hepatic obstruction, liver abscess, liver cirrhosis, & biliary cirrhosis.
2. Jaundice due to genetical and chromosomal disorders.
3. Less than 10 years and more than 70 years
4. Pregnant woman with jaundice.

**Discontinuous criteria:-**

1. A non cooperative patient.
2. Whose symptoms were aggravated?
3. Who developed hypersensitivity for any constituents of trial medicine?

**Diagnostic and assessment criteria:-**

Diagnosis and assessment of the effect of therapy was done on the following parameters:

- **Subjective parameters:-** Diagnosis and assessment for any improvement in various clinical features of kamala was done fortnight on the basis of grade scoring methods.

**Symptoms rating scale for kamala:-**

S. No.	Severity of symptoms	Score	Scoring symbol
1.	Absent	0	-
2.	Mild	1	+
3.	Moderate	2	++
4.	Severe	3	+++

• **Objective A(Laboratory) parameters**

1. Haematological- TLC, DLC, ESR, Hb gm%, CT & BT
2. Serological- S. bilirubin direct & indirect, ALT, AST, ALP, serum protein, lipid profile & HbsAg.
3. Urine- Bilirubin and urobilinogen.
4. Radiological- USG whole abdomen

**Data documentation and statistical analysis:**

It was a demographical and clinical study under single blind test and its all data were analyzed using appropriate statistical tests. All values of quantitative variables are expressed as percentage and calculated as percentage, mean,  $\pm$ SD, SE, “w” (Wilcoxon rank sum test) and t-test.

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**Demographical observation:-**

The contemporary clinical study was conducted at National Institute of Ayurveda Jaipur, Rajsthan. After proper evaluation on the basis of clinical and laboratory investigations total 32 patients were registered from the O.P.D. / I.P.D. of National Institute of Ayurveda. Out of 32 patients, 2 patients could not complete their drug trial (due to increased symptoms). The study has been conducted only on 30 patients.

1) *Nidanatmaka* findings:

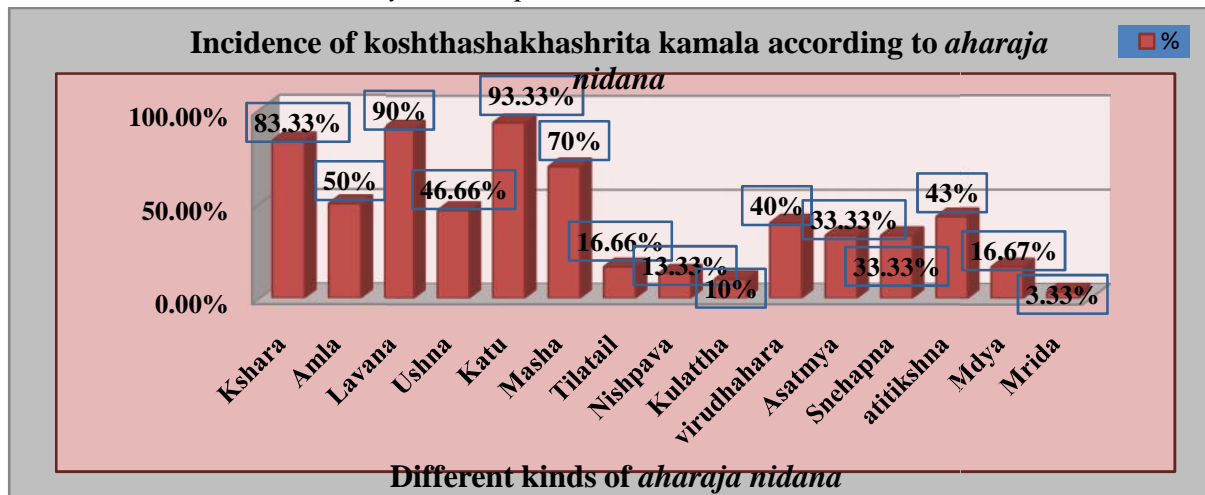
Table No.1 (a):- Showing the incidence according to *aharaja nidana* of patients

a) Incidence of *koshthashakhashrita kamala* according to *aharaja nidanas*:

S. No.	Aharaja-nidana	No. of Pt's	Prevalence of <i>nidan</i> (%)
1.	<i>Kshara</i>	25	83.33%
2.	<i>Amla</i>	15	50%
3.	<i>Lavana</i>	27	90%
4.	<i>Ushna</i>	14	46.66%
5.	<i>Katu</i>	28	93.33%
6.	<i>Masha</i>	21	70%
7.	<i>Tilatail</i>	5	16.66%
8.	<i>Nishpava</i>	4	13.33%
9.	<i>Kulattha</i>	3	10%
10.	<i>Virudhahara</i>	12	40%
11.	<i>Asatmya</i>	10	33.33%
12.	<i>Snehapana</i>	3	10%
13.	<i>Atitikshna</i>	10	33.33%
14.	<i>Mridasevana</i>	10	33.33%
15.	<i>Madya</i>	4	6.67%

Among these *nidana*, *kshara* were taken by 83.33% of total *kamala rogi* while *amla* was taken by only 50% of patients. Similarly others *nidanas* like *lavana*, *ushna*, *katu*, *masha*, *tilatail*, *nishpava*, *kulattha*, *virudhahara*, *asatmya*, *snehapana*,

*na*, *atitikshna*, *mridasevana* and *madya* were also taken by 90%, 46.66%, 93.33%, 70%, 16.66%, 13.33%, 10%, 40%, 33.33%, 10%, 33.33%, 33.33%, 13.33% and 6.66% of *kamala* patients respectively.



Graph No.1 (a)

b) Incidence of *koshthashakhashrita kamala* according to *viharaja nidana*:

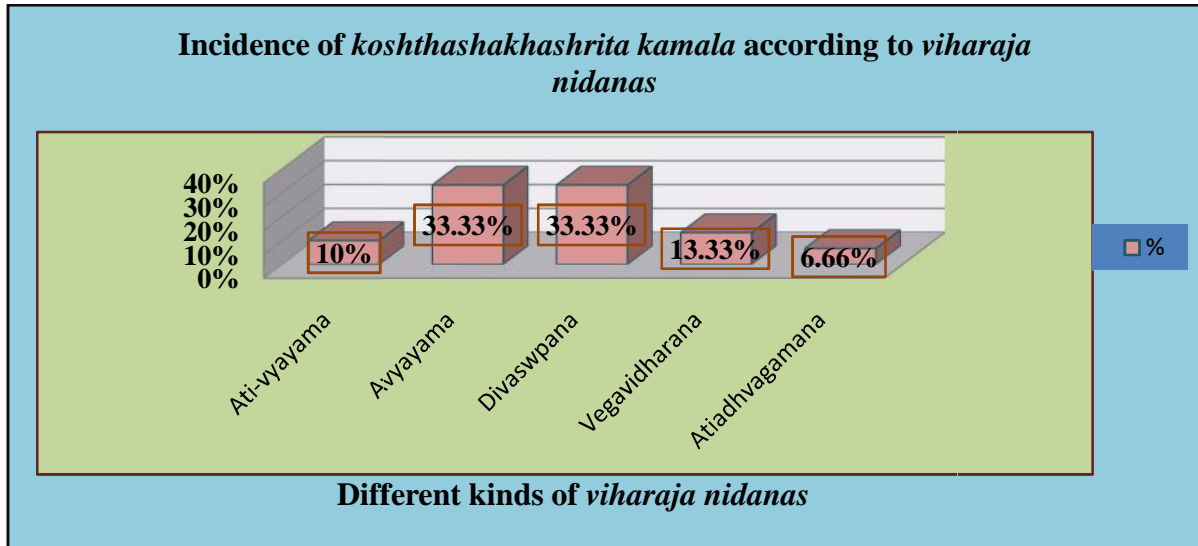
Table No.1 (b):- Showing the incidence according to *viharaja nidana*

S. No.	Viharaja nidana	No. of Pt's	Prevalence of <i>nidan</i> (%)
1.	<i>Ati-vyayama</i>	3	10%
2.	<i>Avyayama</i>	10	33.33%

3.	<i>Divaswpna</i>	10	33.33%
4.	<i>Vega-vidharana</i>	4	13.33%
5.	<i>Ati-adhvagamana</i>	2	6.66%

According to above *nidana* 10% patients were found to indulging *ativyayama* and 33.33% had taken the *avyayama* & *divaswpna*. Remaining indabas like *vega-*

*vidharana* and *ati-adhvagamana* were found in 13.33% and 6.66% patients of kamala.



Graph No. 1 (b)

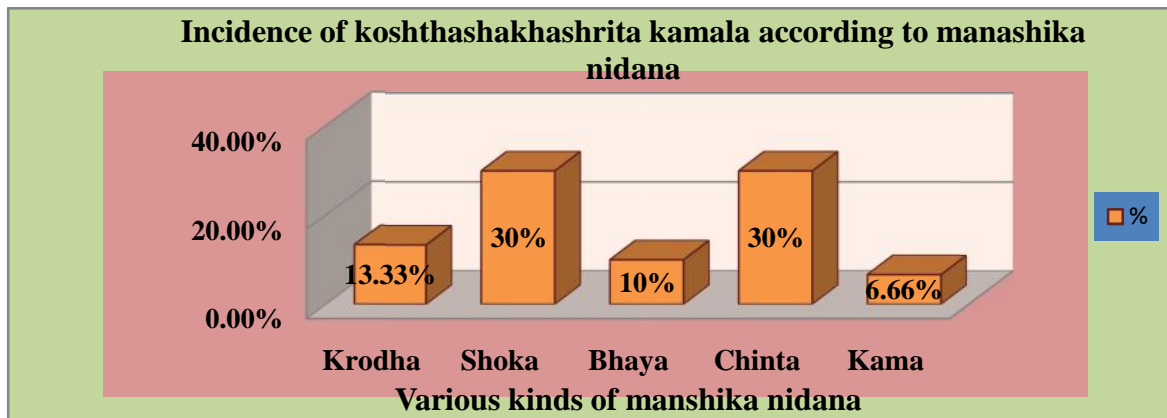
c) Incidence of *koshthashakhashrita kamala* according to *manasika nidanas*:

Table No.1 (c):- Showing the incidence according to *manasika nidanas*

S. No.	<i>Mansika nidanas</i>	No. of Pt's	Prevalence of nidana %
1.	<i>Krodha</i>	4	13.33%
2.	<i>Shoka</i>	9	30%
3.	<i>Bhaya</i>	3	10%
4.	<i>Chinta</i>	9	30%
5.	<i>Kama</i>	2	6.66%

All these five *manasika nidanas* were present in few patients of *kamala*, like *krodha* were present in 13.33% patients of *kamala*; *shoka* & *chinta* both oc-

curred in 30% patients of *kamala* while *bhaya* and *kama* were present in 10% and 6.66% in patients of *kamala* respectively.

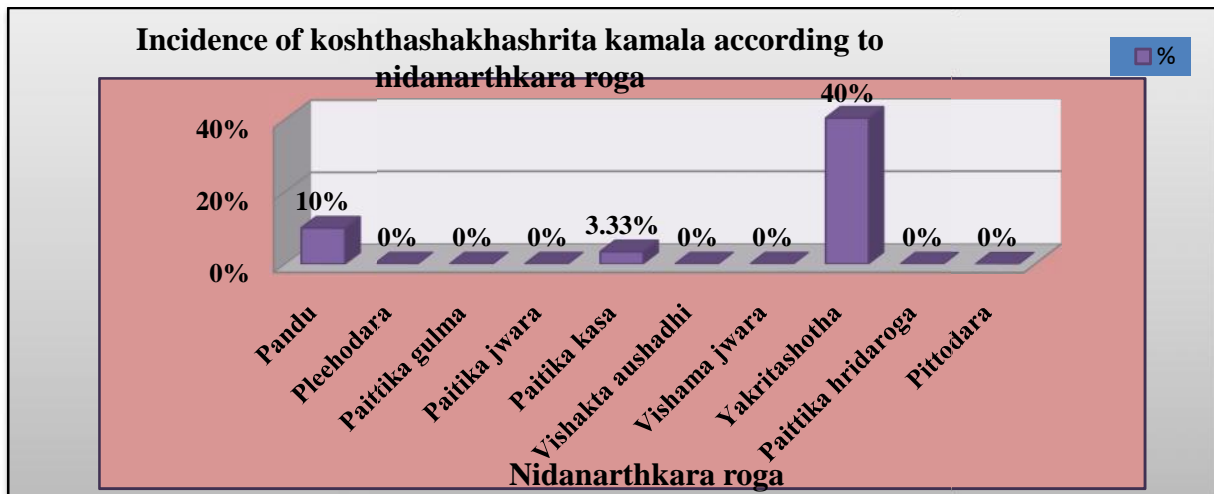


**Graph No.1 (c)**

**d) Incidence of koshthashakhashrita kamala according to nidanarthakar roga**

S. No.	Nidanarthkar roga	No. of Pt's	Prevalence of nidan (%)
1.	Pandu	3	10%
2.	Pleehodara	0	0%
3.	Paittikagulma	0	0%
4.	Paittika jwara	0	0%
5.	Paittika kasa	1	3.33%
6.	Vishakta aushdhi	0	0%
7.	Vishma jwara	0	0%
8.	Yakrita shotha	12	40
9.	Paittika hridaroga	0	0%
10.	Pittodara	0	0%

**Table No.1 (d):- Showing the incidence according to nidanarthkar roga nidana:**



**Graph No.1 (d)**

The majority of *nidanarthkar roga* in case of kamala was found *yakrita shotha* (40%); then followed by *pandu* (10%) & *paittika kasa* (3.33%). Others *nidanarthkar roga* like *hrida roga*, *vishama jwara*

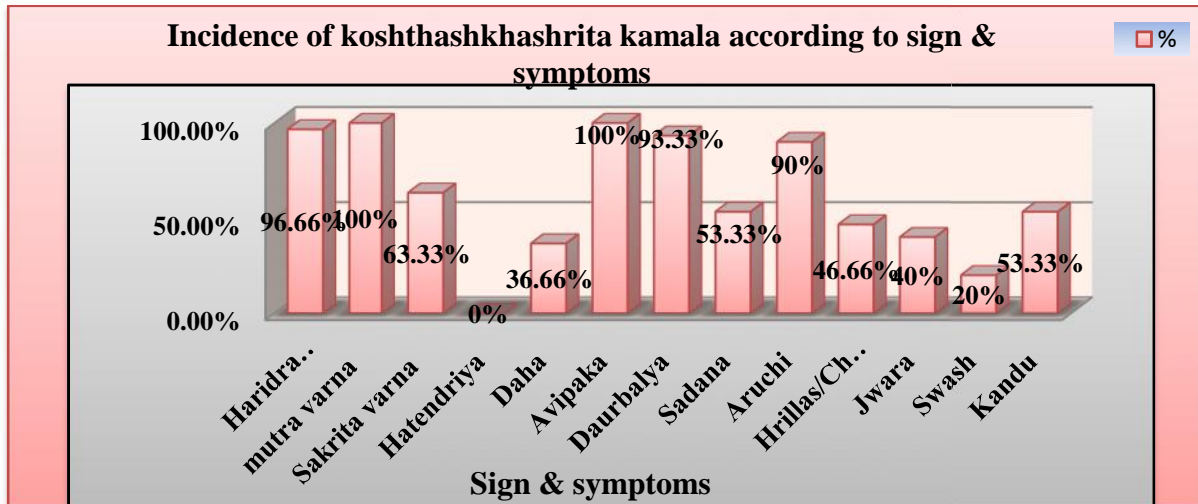
etc. were not found in this trial research work.

**2) Incidence of koshthashakhashrita kamala according to sign & symptoms:**

**Table No.2:- Showing the incidence according to sign and symptoms**

S. No.	Sygn & Symptoms	No. of patients	Prevalence of nidans (%)
1.	Haridra varna	29	96.66%
2.	Mutra varna	30	100%
3.	Shakrita varna (Clay colour)	19	63.33%
4.	Hatendriya	0	0%
5.	Daha	11	36.66%
6.	Avipaka	30	100%
7.	Daurbalya	28	93.33%
8.	Sadana	16	53.33%

9.	Aruchi	27	90%
10.	Hrillas/Chardi	14	46.66%
11.	Jwara	12	40%
12.	Swash	6	20%
13.	Kandu	16	53.33%



Graph No.2

Out of 30 patients, every sign and symptoms were not found in each patient. Although the most cardinal signs were found in maximum number of patients like “haridravarana” (yellowish discoloration) in 96.66% of patients, “mutara varna and avipaka”(yellowish discoloration of urine and indigestion) in 100% of patients and daurbalya & aruchi (weakness and anorexia) in 93.33% and 90% of patients kamala.

The prevalence of other symptoms were established in less percentage i.e. sadana and kandu (malaise & itching) in 53.33% of patients, hrillas (nausea) in 46.66% of patients, daha (burning sensation) in 36.66% of patients and there was not found any patient who was associated with the symptoms hatendriya.

## DISCUSSION

Table No.1 (a) and (b):- On looking the aharaaja and viharaja nidana simultaneously, it was found that maximum No. of patients was using the pitta vardhka

diet, at same time they were also used kapha vardhaka viharaja nidana. Ahara where increase their pitta and viharaj increase their kapha. Due to above cause, these two factors have much tendency to produce koshthshakha-ashrit kamala. It is proofed that on the basis of prevalence percentage of ahara and viharaj nidans, those nidans having the vast percentage of prevalence who have great tendency and strength to cause kamala ailment and vice versa.

Table No.1 (c):- 30% patients were found with chinta and same percentage with shoka (Sadness) was also found. 5Vishada (mental illness) can aggravate the ailment but cannot produce the disease, like this chinta, shoka, bhaya and krodh etc All these factors except krodh are creating the mandagni, due to this evolved ama kapha obstructs the pittavaha srotasa and increase the kamala ailment. 6But krodh can directly enhance the pitta and cause the kamala roga. In contemporary science, the anorexia and loss of appetite are the chief symptoms of jaundice. So patient unable to

take sufficient calorie and starvation condition is created at cellular level. We know that, the hepato-cellular intake of bilirubin is energy dependent process therefore, in under starvation condition<sup>7</sup>, intake of bilirubin by hepatic cells is reduced and thereafter bilirubin quantity increase in blood. It is explain why the mental cause increases the kamala disease.

Table No.1 (d):- According to *nidanarthakara roga* maximum number of patients was found with *yakrita shotha* (Hepatitis) thereafter *pandu* and *pittaj kas* respectively. It means, the most important cause of *kamala* is the *yakrit shoth* (Hepatitis)<sup>8</sup>.

Table No.2: - According to *lakshanas*, maximum No. of patients were found of those *lakshanas* are illustrated in text as cardinal sign and symptoms like *haridra varna*, *avipaka*, *daurbalya*, *kandu* (itching) and *aruchi* (anorexia) etc. as we know that, the maximum number of patient comes to doctor for take the treatment in *vyaktavastha* and in *vyaktavastha* most sign and symptoms appear, so above *lakshanas* were found in more patients.

## CONCLUSION

The maximum etiological factors are able to cause kamala which is narrated in *ayurvedic* text but their efficiency is different. Dietary factors are the chief factors and other are like a supporting and aggravating factors. But in another case jaundice is develop as a complication<sup>9</sup> of ailment, hence this type of etiological factors are known as *nidanarthak nidans*.

The clinical presentation of kamala ailment like *haridra varna*, *avipaka*, *daurbalya*, *kandu* (itching) and *aruchi* (anorexia) etc. are the most common features. The *kandu* is an additional symptom which is found in this research work in 16 patients out of 30, whereas *kandu* is not de-

scribed in ancient science as symptoms of *kamala*.

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*Source of support: Nil*

*Conflict of interest: None Declared*