



Research Article

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COMPARATIVE STUDY OF KUMARI SWARASA AND KANYASARA IN THE MANAGEMENT OF KASHTARTAVA

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ABSTRACT

Kumari (*Aloe barbadensis* Miller) is a miracle plant. In Ayurvedic texts Kumari has different raspanchaka (properties) than Kanyasara, on the basis of this comparative study has been done to analyse its effect in the management of Kashtartava (dysmenorrhoea). Two groups each of 15 patients of age group 15 to 30 were studied by giving Kumari swarasa 10 ml BD to group 1 and Kanyasara vati 250 mg BD to group 2 for 10 days before expected commencement of menstrual cycle for 3 menstrual cycles. Results of group 2 were 25.11% better than group I, significant at $p < 0.05$. ($t = 3.283$). Katu rasa and katu vipaka has predominance of vayu + Agni mahaboota. Due to this Kanyasara has strotasa- shodhna & kaphahara properties that removes clots, increases flow of menstrual blood and its ushna virya improves rhythmic contractions of uterus. Hence Kanyasara is best line of treatment in Kashtartava.

Key words: Kashtartava, Kanyasara, Kumari Swarasa, Raspanchaka

INTRODUCTION

Kumari (*Aloe barbadensis* Mill.) was firstly documented as a plant of great healing power and laxative herb in sumerian clay tablet, found in the city of Nippur; written around BC. 2200 and later on was mentioned as silent healer, skin protective, anti-inflammatory, immunomodulator & used in radiation injuries, ulcers, burns, leprosy sores, dermatitis, tuberculosis & is functional ingredient of foods¹. It is also called as miracle plant for containing vitamins A, C, E, B₁, B₂, B₃, B₅, B₆, B₁₂, folic acid, choline, amino acids, enzymes, calcium, chromium, selenium, magnesium, manganese, zinc, copper, iron, potassium, phosphorus, sodium, carbohydrates, anthraquinones, fatty acids, salicylic acid, linin and saponins². The mucilage of its leaves is clinically and experimentally proved anti-diabetic¹⁶.

In Ayurvedic texts Kumari was firstly mentioned in Bhela Samhita for vatavyadhi and later on it was indicated for various ailments, especially in context of present study it is mentioned in Bhaishjyarnavali /Yonivyapadachikitsa/57-58 in the formulation named as Rajahpravartini vati indicated for Kashtartava (dysmenorrhoea) and Rajorodha (ammenorrhoea), where Kanyasara and Kumari Swarasa both are ingredients at the same place.

Raspanchaka of Kumari in Ayurvedic texts is mentioned as :- Guna (properties)- Guru (heavy), Snigdha (unctuous), Pichhial (slimy); Rasa (taste)- Tikta (bitter), Madhur (sweet); Vipaka (final transformation after digestion)- Katu; Veerya (potency)- Sheeta (cold) whereas Rasapanchaka of Kanyasara is mentioned as:- Guna- Laghu (light) Ruksha (dry), Teekshna (sharp); Rasa- Katu (pungent); Veerya- Ushna (hot) ; Vipaka- Katu³.

As Charaka has mentioned that "Sanskaro hi Gunantradhanamuchayate" (Ch.Vi.1/22)

Being different Rasapanchaka the rationality of incorporating both Kumari swarasa and Kanyasara as ingredients of Rajahpravartini vati, the comparative study has been done to analyse their effect in the management of Kashtartava.

Aims and objectives

To study, the therapeutic efficacy of Kumari swarasa and Kanyasara (Musabbar) comparatively in the management of Kashtartava.

MATERIALS AND METHODS

Selection of drug

- Kumari is indicated as Vattapranuta⁴ (balancing the vatta dosha). It is also an ingredient of Raja pravartani vati which is indicated in Kashtartava and Rajorodha.
- Kanyasara is mentioned in Raja pravartani vati, Kumarika vati and Vijayadi vati for the management of Kashtartava⁵. It is also indicated as Pushpajanana (increase menstrual flow) in Ayurveda Vijnana.

Collection of drug

Drug was collected in its mature stage from herbal garden Jogindernagar after proper identification of species by botanists of herbal garden and P.G. department dravyaguna of Rajiv Gandhi Ayurvedic College Paprola (H.P.)

Preparation of drug

Drug was prepared in pharmacy under the guidance of rasashastra and bhaishjya kalpana department of Rajiv Gandhi Ayurvedic College Paprola (H.P.). Kanyasara was prepared by cutting the lower end of leaf blade to exude the juice, which was collected, pulverized and heated in low temperature up to complete evaporation of water and then vati kalpana was prepared¹⁵. Kumari swarasa was prepared freshly for each patient by pulverizing the pulp.

Selection of patients

Patients were selected on the basis of criteria for selection, after careful examination and by taking written informed consent from OPD/IPD of R.G.G.A. Hospital. Ethical clearance was obtained before the trial.

Criteria for Selection

Inclusion Criteria

- Patients coming with chief complaint of pain during menstruation.
- Patient willing for trial.
- Under the age group 15 – 35 years. (Married were advised for abstinence) as below 15 years cycles are anovulatory and above 35 age is menopausal. Married were advised for abstinence because drug has mentioned as abortifacient in Ayurveda vijnana.

Exclusion Criteria

- Patients not willing for trial.
- Patients having congestive dysmenorrhoea
- Patients below 15 and above 35 years.
- Patients with chronic general illness like known case of severe anaemia, diabetes mellitus, hypothyroidism, hyperthyroidism etc.
- Patients with intrauterine contraceptive device.
- Patients of urinary tract infection.
- Patients with irregular cycles.
- Patients suffering from menorrhagia.
- Any pelvic or uterine pathology.

Study design

Trial Group I: Fifteen patients were given Kumari Swarasa (orally) in the dose 10 ml BD for 10 days before expected commencement of menstrual cycle.

Trial Group II: Fifteen patients were given Kanyasara Vati (orally) in the dose 250 mg BD for 10 days before expected commencement of menstrual cycle.

Duration of trial: Three Menstrual cycles.

Follow up:-

-Just after completion of trial

-After Completion of one menstrual cycle following trial.

Statistical analysis

All the observations were analyzed statistically in terms of mean (x), standard deviation (S.D.) and standard error (S.E.), paired t test was carried out at P < 0.05 – Significant; P < 0.01 - Highly Significant, P < 0.001 - Extremely significant. Percentage relief in treatment was calculated by the method- Relief % = BT-AT/BT%

Overall results

Markedly improved: >75%,

moderately improved: 51% - 75%,

improved: 25%- 50%,

unimproved: <25% relief in total symptoms.

Computer software used for statistical analysis was IBM SPSS statistics 20.

RESULTS

Intergroup comparison over criteria of assessment

Table 1: Cardinal Symptoms

Symptom	Percentage relief		Difference in percentage	Unpaired 't' test	
	Group I	Group II		T	p
Intensity of pain	23.33	71.06	47.73	2.840	<0.05
Duration of pain	15.38	54.18	38.8	2.338	<0.05

Table 2: Associated symptoms

Symptom	Percentage relief		Difference in Percentage	Unpaired 't' test	
	Group I	Group II		T	p
Amount of flow	-25	-50	-75	-2.646	<0.05
Nausea	50	35.6	14.4	-1.549	>0.05
Vomiting	50	40.03	9.97	-1.058	>0.05
Breast Tenderness	25	42.1	17.1	-0.475	>0.05
Headache	50	100	50	1.468	>0.05
Giddiness	66.6	50	16.67	-2.121	<0.05
Loose stool	-33.35	40	73.35	0.00	>0.05
Anorexia	99.9	66.6	33.3	-1.468	>0.05
Irritability	46.15	54.16	8.01	-1.009	>0.05
Constipation	85.7	100	14.3	1.00	>0.05

Table 3: Intergroup comparison over total criteria

Groups	Mean score		Percentage	X (B.T.-A.T)	S.D ±	S.E.±
	B.T.	A.T.				
Group I	0.6768	0.4567	32.52	0.2201	0.2007	0.057
Group II	1.9575	0.4100	57.63	0.5475	0.7309	0.211

BT: Before Treatment, AT: After Treatment

Table 4

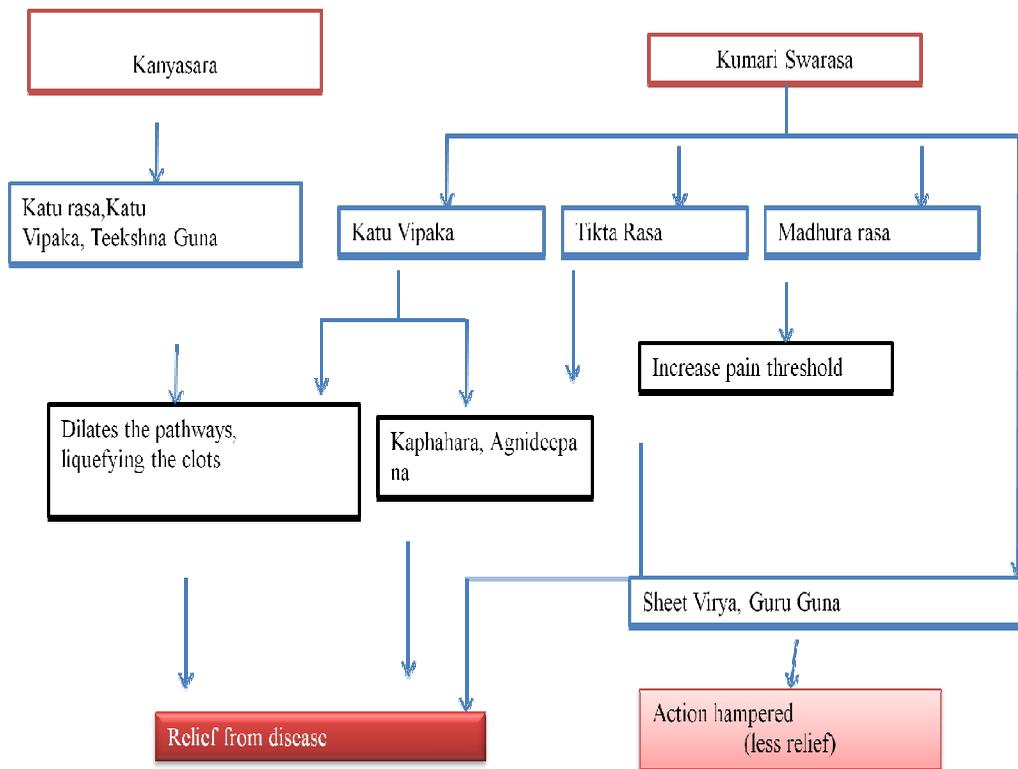
Comparison	Percentage relief difference	T	P
Group I vs. Group II	25.11	3.283	p<0.05

In the intergroup comparison over total criteria, group II showed 25.11% more relief than group I which is significant at p<0.05. (t =3.283).

Table 5: Overall effect in two groups in 30 patients

Assessment	Group-I patients	Group-I %	Group-II patients	Group-II %	Total	Percentage
Markedly Improved	3	20	5	33.3	8	26.6
Moderately Improved	0	0	9	60	9	30
Improved	5	33.3	1	6.7	6	20
Unimproved	7	46.6	0	0	7	23.3

Comparative Probable mode of action of Kumari Swarasa and Kanyasara



Laboratory Investigations

Routine blood and urine investigations were carried out before and after the treatment, but no appreciable changes were observed.

DISCUSSION

Shudha artava (pure menstruation) is important for conception⁶. It has agneya (hot) property⁷. Kashtartava means kashta purna artava (difficult and painful menstruation) which is caused by

vitiation of vata dosha associated with other doshas like kapha. Vitiation of vata dosha is mainly caused by 3 reasons⁸ - **Dhatu kshaya** (catabolism) resulting from consumption of vata prakopaka ahara – vihara, Kaphoplepa with other doshas resulting in agni mandya (dyspepsia) and Strotomukha avrodha⁹(obstruction of micro channels). **Vata kopa** can occur in two ways, svadhatu vaishamyta (unbalanced vata dosha) and unmargagamana (detraction if vata dosha) causing dysrhythmia in uterine muscles. **Margavrodha** (obstruction of passage) - vitiation of vata and kapha doshas obstruct the passage of

channels carrying artava¹⁰ which results in formation of clots, less and painful menstruation & patients get relief by expulsion of Artava¹¹.

Kanyasara contains katu rasa, katu vipaka having predominance of vayu + agni mahaboota, ushna virya, teekshana guna have agni mahaboota and laghu, ruksha guna have vayu mahaboota. Ushna virya is vatta kaphahara, raktavardhaka, agnivardhaka and strotasa dilator¹². Katu rasa, katu vipaka and teekshna guna dilates the pathways, liquefy the clots and are kaphahara, agnideepana¹³. Hence by ushna virya, katu rasa, katu vipaka & teekshna guna- Digestion is improved leading to dhatuposhna. Optimization of the vatta kapha results in rhythmic movements of uterus, decreased formation of big clots and decrease in the pain during menstruation. The channels which are carrying the artava are dilated and cleared so that easy expulsion of big clots takes place resulting in immediate relief of pain.

Kumari is sheet virya which is said to cause agnimandya, delayed digestion, obstruction of channels and decreased flow of blood¹⁴. It can act upon dysmenorrhoea by katu vipaka (as explained above) and madhura rasa by increasing pain threshold as it is immune booster but its action is hampered by sheet virya, guru, snigdha, pichhila guna so that it is less effective than Kanyasara.

CONCLUSION

Study showed that Kanyasara is 47.73% better than Kumari Swarasa in pain intensity, 38.8% better in duration of pain, 75% better in respect of amount of flow and 25.11% better in overall symptoms whereas Kumari swarasa is better in associated symptoms like giddiness, nausea, vomiting and anorexia. Hence Kanyasara is better than Kumari Swarasa but Kanyasara and Kumari Swarasa in combination can prove the best line of treatment by relieving cardinal as well as associated symptoms of Kashtartava.

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