

Formulation and Evaluation of Kuberaksha Tablet in the Treatment of Udavartini Yonivyapada (Primary Dysmenorrhoea)

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ABSTRACT

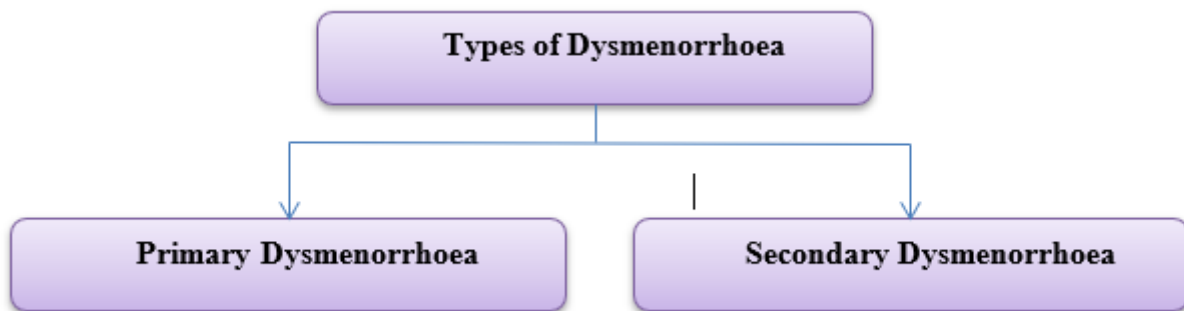
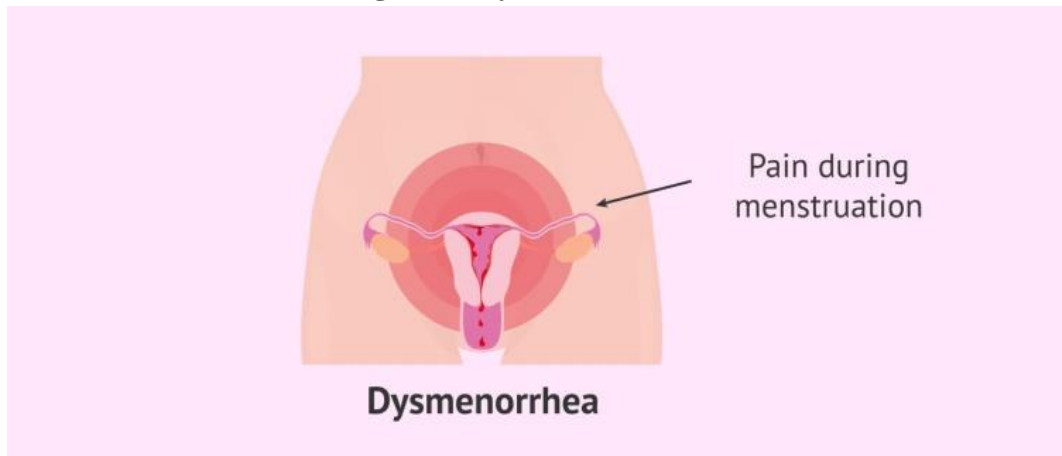
Udavartini is one of the Yonivyapada, and it is attributed to Vākruta Vata. When Vegadharana and other nidana elements exacerbate Vata, it goes in the other direction, settles in Yoni, generates discomfort, and then releases it with difficulty. The woman experiences instant comfort at the release of her menstrual blood. It is called Udavartini. The state of udavartini is comparable to dysmenorrhea. Menstruation that hurts is known as dysmenorrhea. Primary dysmenorrhea comprises the majority of dysmenorrhea patients. Modern medicine still finds little success in treating this illness since using hormones and antispasmodic medications can have a number of negative side effects, including hypertension and psychological problems. An attempt has been made to use the Ayurvedic medical system to treat this problem. Kuberaksha tablet, a medication taken orally, possesses the qualities of Vedanasthapana, Vaatahara, and Anulomana. In the current study, Kuberaksha tablet effectively opposes Udavartini Yonivyapada. In addition, cotton root is the new ingredient or API of kuberaksha tablet and it reduce lower abdominal pain in females and rice starch is also a new excipient added in kuberaksha tablet to increase dietary supplement of the women's body.

KYEPOINTS: Kuberaksha Tablet, Udavartini Yonivyapada, Herbal Tablet.

INTRODUCTION

The woman honored as "Shakti," the mother of creation and the one on whose lap civilization as a whole rests. We recognize that when we talk about "women's health," we're talking about a wide range of concerns that arise at various points in a woman's life. A woman's lifetime is filled with significant transformations. The terms menarche, pregnancy, postpartum, and menopause refer to the main transitions. She runs the danger of acquiring numerous pathologies as a result of these sudden shifts. A woman's quality of life is influenced by a variety of factors, including her environment, lifestyle, culture, and the shifting expectations of society towards her. Since the stem is a model for reproduction, it is crucial for her health.

Figure.1. Dysmenorrhoea



Primary dysmenorrhoea

One of the physiological processes associated with women's reproductive lives is the menstrual cycle. Gynecological ailments, or diseases pertaining to the female reproductive system, are classified as Yonivyapada in Ayurveda. This is primarily because of the vitiation of Vata dosh.[1] Initially, Yonivyapad was listed as twenty in all of the classics. Among the 20 Yonivyapadas, Udavarta Yonivyapad is primarily Vata dominating.[2] Ayurveda states that the clinical entity is typified by pain and difficult menstrual blood expulsion because of the upward movement of rajas, or menstrual blood, which is driven by vitiated vata. The term Udavritam refers to the upward motion.[1, 2, 3] Owing to the movement of natural desires, such as flatus, in the opposite direction, aggravated vayu (Apana vayu) floods the yoni (uterus). This yogi grasped the anguish, threw or pushed the rajas (menstrual blood) upwards at first, and then with great difficulty let it out. The woman feels comfort as soon as her menstrual blood is discharged. This disorder is called Udavartini because the menstrual blood, or rajah, travels either upward or in the opposite direction.[4] In addition to the uncomfortable and frothy menstrual flow, vata can also cause bodily aches and general illness.[5] According to the Madhukosha commentary, pain stems from the movement of vayu all around.[7] the foamy menstrual blood flow is related to kapha.⁷ According to contemporary science, primary dysmenorrhea is the same as Udavartini illness. Based on Charaka's description of the symptom "immediate relief of pain following menstrual blood discharge," it seems to be closer to primary or spasmodic dysmenorrhea.[8, 9] Dysmenorrhea, which translates to "PAINFULL MENSTRUATION," is a prominent cause of unhappiness for adolescent girls and women. It is one of the most common gynecological problems, and the more civilized a population is, the more common it becomes. In as many as 10% of women, dysmenorrhea affects daily activities and affects 40–70% of those who are fertile.[10] When ovulation cycles begin at

menarche, primary dysmenorrhea typically begins at that time as well, with no aberrant findings upon examination. This scenario affects people's quality of life and personal health significantly, but it also has an effect on the world economy. Our science indicates that prakupita vata with vilomgati is the primary cause of disease; therefore, vata shaman, with its prakruta gati / anuloma gati, will address the issue. This is an effort to investigate safe and effective ayurvedic therapy options for vata dosha.[11]

KUBERAKSHA: SCIENTIFIC CLASSIFICATION

Kingdom-: Plantae

Subkingdom-: Tracheobionta

Superdivision-: Spermatophyta

Division-: Magnoliophyta

Class-: Magnoliopsida

Subclass-: Rosidae

Order-: Fabales

Family-: Fabaceae Lindl.

Genus-: Caesalpinia L.

Species-: Caesalpinia bonduc (L.) Roxb.

It grows throughout India by sand banks, the margins of communities, and field hedges.[12]

MACHANISM OF ACTION

Kuberaksha provides heat to the body to stimulate periods in case of uneven periods. Its medicinal properties align hormonal flow to ensure complete and proper working of the uterus.

It is useful in strengthening hair and providing shine. Also effective for relieving stomach ache and swelling of organs.[13]

PROCEDURE

1. Take all powder ingredients such as kuberaksha seed powder, Suntha powder, hing powder, black salt and rice starch and pass it through sieve.
2. Weigh all powder ingredients.
3. Mix all powders properly with the help of mortar and pestle.
4. Now add sufficient quantity of Lasun rasa and Honey.
5. Mix all ingredients properly and then blend it.
6. Punch 500mg Herbal Kuberaksha tablet into tablet punching machine.[13]

Figure2. Herbal Kuberaksha Tablet



Table1. Formulation Table Of Batches

Ingredients	F1	F2	F3	F4	F5
Kuberaksha seed powder	2 gm	2 gm	2 gm	4 gm	4 gm
Suntha powder	2 gm	2 gm	2 gm	4 gm	4 gm
Hing powder	1 gm	1 gm	1 gm	2 gm	2 gm
Cotton root powder	1 gm	1 gm	1 gm	2 gm	2 gm
Black salt	1 gm	1 gm	1 gm	2 gm	2 gm
Rice starch	-	-	7 gm	14 gm	14 gm
Lasun rasa	Qs	Qs	Qs	Qs	Qs
Honey	-	Qs	Qs	Qs	Qs

EVALUATION OF HERBAL TABLET

Hardness test

Hardness is the measure of a tablet's resistance to mechanical shocks. The tool used to measure a tablet's hardness is the Pfizer hardness tester. It is given as kg/cm². Take three tablets from each batch, assess the tablets' hardness, and choose the tablets at random. Next, values for the mean and standard deviation must be ascertained.[14]

Weight Variation test

From each batch, 20 tablets should be chosen at random. Each tablet's weight should be recorded, and any variations in weight should be examined. US Pharmacopeias state that slight weight discrepancies are acceptable because they are so minor. The formula to determine the percentage of weight variation test is [14]

Weight variation = $\frac{IW - AW}{AW} \times 100\%$.

Friability test

The device that is used to determine friability is called a Roche friabilator. The percentage is used to express it. Record the starting weight of each tablet separately (W initial). The tablets are inserted into a plastic chamber that spins at a speed of 25 revolutions per minute and then dropped from a height of 6 inches into the friabilator for approximately 100 revolutions. Next, weigh the tablet (W final) and note any differences in weight between the tablet's pre- and post-friabilator processing. Limits: Weight loss within acceptable bounds should be defined as less than 0.5 to 1% of the tablet's starting weight. The formula to determine the percentage of friability is [14]

$F = \frac{(W \text{ initial}) - (W \text{ final})}{(W \text{ initial})} \times 100$.

Disintegration test

The breaking of a tablet into tiny particles is known as disintegration. Using disintegration test equipment in accordance with IP requirements, the disintegration time of a tablet is ascertained. Put a disc containing 6.8 pH phosphate buffer in each of the six tubes of the disintegration apparatus after placing a tablet in each tube. Maintaining the buffer's temperature at 37±2°C while raising and lowering the apparatus thirty times per minute is the goal. Record how long it takes for the tablet to dissolve completely and without any interruptions.[15]

Dissolution test

A dissolution test calculates how quickly and how much a medication dissolves in a particular medium after being released from a solid dosage form (such as tablets or capsules). It forecasts in vivo

performance and guarantees the consistency and quality of the medicine. The USP Apparatus 1 (Basket) and USP Apparatus 2 (Paddle) are important equipment. In order to assess the drug release profile, the test entails dissolving the drug in a dissolving media, running the device under controlled conditions, taking periodic samples, and evaluating the samples. It is essential for formulation creation, regulatory compliance, bioequivalency research, and quality control. Take the dissolution solution check the concentration of tablet in UV by pouring the solution in quartz then put the quartz in UV chamber and record the readings.[16]

RESULT AND DISSCUTION

The present work on formulation and evaluation of kuberaksha tablet was done. There are various parameters for evaluation of tablet such as hardness test, weight variation test, friability test, disintegration test, dissolution test were done.

Table2. Result Table

Sr. No.	Evaluation Parameter	Result
1	Hardness test	2.56 kg
2	Weight variation test	94.94 %
3	Friability test	0.20 %
4	Disintegration test	11 minutes
5	Dissolution test Drug concentration in UV	4 minutes 1) 0.212 kcal/mol 2) 0.202 kcal/mol

The present research was done for the formulation of herbal tablet from kuberaksha seed powder. The anti-inflammatory activity of kuberaksha seed is mimic by the addition of cotton root powder which reduce the lower abdominal pain as well as anti-inflammatory activity. The kuberaksha tablet is consume orally with lukewarm water and should be taken twice a day after proper meals.

CONCLUSION

The herbal Kuberaksha tablet minimizes lower abdominal pain due to its pharmacological effect. It also provides a dietary supplement to the body through rice starch, and rice starch is also used in a tablet. Additionally, cotton root powder helps to reduce period cramps. Kuberaksha tablets show anti-inflammatory, anti-oxidant, and anti-diarrheal properties in women's bodies. Kuberaksha tablets are helpful for PCOD and PCOS problems.

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