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# A Clinical study to assess the effectiveness of *Actaea* racemosa 30 C and 200 C in cases of primary dysmenorrhea in young females

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#### Abstract

Primary dysmenorrhea is one of the common and most spoken topics in young females' lives. Although it is a common condition it is usually underdiagnosed, since most females do not seek medical attention. Primary dysmenorrhea is a common and often debilitating condition that affects many individuals. It is characterized by painful cramps in the lower abdomen, which start slowly and shortly before or onset of the menses. But the term primary dysmenorrhea means absence of any-other secondary diseases such as –endometriosis and PCOD. Due to this, the quality of life of young females has a negative impact and that is the main reason for the major absenteeism from school, college and work. This clinical study investigates the efficacy of *Actaea racemosa* in 2 potencies 30C and 200C as a potential homeopathic remedy for alleviating primary dysmenorrhea in young females. In this study 20 young females with complaints of primary dysmenorrhea selected from SKHMCH were prescribed with *Actaea racemosa* 30C or 200C after through case taking. Follow-ups were taken for the next day and improvements of the cases were assessed. This research employs a rigorous methodology to assess the impact of these remedies on the intensity and duration of menstrual pain with a focus in improving the quality of life for affected individuals.

**Keywords:** Primary dysmenorrheal, *Actaea racemosa*, endometrium, Dysmenorrhea, Prostaglandin, ovulatory cycle, Reproductive Systems, lancinating

#### Introduction

Dysmenorrhea or menstrual cramps refers to painful abdominal cramps during menses, is the most common gynecologic problem in women of all ages and races, and one of the most common causes of pelvic pain <sup>[1]</sup>. Cramps are caused by abnormal uterine muscles contraction due to excessive amount of prostaglandin level (a type of hormone) selected from endometrium (Inner lining of uterus) during menstruation <sup>[2]</sup>. It is not only the physical pain but also the mental and emotional changes under hormone influence that are very agonizing. Other symptom of Dysmenorrhea includes nausea, vomiting, headache, backache or diarrhea. Almost 50% of all women experience dysmenorrhea and in 15%, the pain is severe enough to limit their daily activities <sup>[3]</sup>. Factors that increase the risk of dysmenorrhea include a positive family history, age, stress, age at menarche, obesity, irregular cycle, long cycle, and heavy bleeding as well as skipping breakfast, eating snacks, smoking and alcohol use <sup>[9]</sup>. In modern medicines Non-steroidal Anti-inflammatory drugs is the most common drugs used for treatment may cause side-effects <sup>[1]</sup>.

# Types of Dysmenorrhea Primary Dysmenorrhea Secondary Dysmenorrhea Primary Dysmenorrhea

Primary (or) spasmodic dysmenorrhea refers to one that is not associated with any pelvic pathology <sup>[1]</sup> it now clear that the pathogenesis of pain is attributed to a bio-chemical dearrangement. Which is mostly confined to adolescents almost conferred to ovulatory cycle, psychosomatic factors to tension and anxiety during adolescence <sup>[4]</sup>. The incidence of primary dysmenorrhea is about 15-20% it is almost always for the first 1 to 2 days. The pain of primary dysmenorrhea is described as spasmodic. It is super imposed over background of constant lower abdominal pain, which may radiate to the back or thigh <sup>[4]</sup>.

#### Secondary Dysmenorrhea

Refers to the associated with the presence of organic pelvic pathology i.e fibroids, adenomyosis, pelvic inflammatory diseases or structural abnormally either within outside the uterus<sup>[4]</sup>.

# Prevalence

The prevalence of dysmenorrhea in women of reproductive age is highest ranging between 20% to 90%. Severe pain is absorbed in 2 to 29%. 80% of women are affected with dysmenorrheal <sup>[4]</sup> worldwide, the prevalence of dysmenorrhea was estimated to be between 16% and 91%. Two Colombian research studies have determined the prevalence to be between 63% and 73%. <sup>[5]</sup>.

## **Mechanism of Primary Dysmenorrhea**

The identified cause of primary dysmenorrhea is the contraction of the muscles of the uterus mechanism of primary dysmenorrheal is due to hyper secretion of the PROSTAGLANDIN from the uterine inner linning.

#### **Role of Prostaglandin**

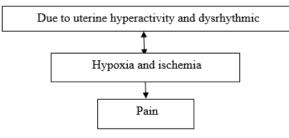
Prostaglandin have important role in ovulatory cycle, under the action of prostaglandin (PGF2 alfa PGE2) are synthetic production from secretory endometrium. Vasoconstrictor that cause ischemia of myometrium. Either due to increased sensitivity of myometrium or increased production of prostaglandin to the normal production of prostaglandin, there is dysrhythmic myometrium contraction.

#### **Role of Vasopressin**

During menstruation production of vasopressin increased. When vasopressin increases prostaglandin synthesis and increases myometrial contraction or activity directly.

#### Aetiology

Although aetiology of dysmenorrheal is not fully understood the cause of pain at or around, the time of menses is believed to be due to the production of prostaglandin in the endometrium in an ovulatory cycle.<sup>[6]</sup> Despite the evidence of supporting, a link between prostaglandin level and dysmenorrheal, it is important to recognize that the explanation for menstrual pain is not as simplistic as the cyclic production of one hormone. Women with dysmenorrheal may have complex alteration in hormone pattern that exist throughout the cycle.<sup>[6]</sup>



#### **Clinical Features**

The main symptom of dysmenorrheal are spasmodic pain and confined to lower abdomen. It may radiate to the back and medial aspect of thighs <sup>[4]</sup>. Systemic discomfort like nausea, vomiting, fatigue, diarrhea, headache and tachycardia. May be associated there is vasomotor changes which causes, pallor, cold sweat, occasional fainting <sup>[6]</sup>.

# **1.6** Action of *Actaea racemosa* in Female Reproductive Systems Pharmacognosy

The source of this remedy is also known as *Actaea racemosa*, black cohosh, bugane, black snake root. It is a member of the Ranunculaceae family a perennial herb, found in deep woods in the east north America<sup>[7]</sup>.

Extracts of the rhizome of *Actaea racemosa* have been traditionally used for a variety of female complaints including pain during childbirth, uterine colic and dysmenorrheal *Actaea racemosa* rhizome contains triterpene glycosides actein, 23-epi-26-deoxyactein (formerly called 27-deoxyactein), cimicifugoside, phenolic acids (isoferulic acid and fukinolic acid), flavonoids, volatile oils, tannins and other pharmacologically active ingredients

#### Action

Actaea racemosa is another great remedy which has its strong influence on female organ<sup>[8].</sup> The main sphere of action of this remedy lies on cerebrospinal and muscular system as well as to uterus and ovaries <sup>[12]</sup>. It also act massively for pain in ovarian region <sup>[9]</sup>. It is one of the best remedies for the Dysmenorrhea when there is severe pain in the back radiating down to the thighs through side to side region of hip <sup>[8]</sup>. Pain of *Actaea racemosa* are electric shock on labour like pain which in sharp, shooting and lancinating pain which occurs mainly the flow of the menstruation <sup>[11]</sup>. There will be pain in the uterine region darting from side to side there will be also severe pain along with a flow generally flow will relieve pain but in this remedy, pain gets worse during the flow that is one of the characteristic feature. In this remedy the suffering is during the flow. Where the pain immediately starts before the menses and their pain are well-marked [10].

Actaea racemosa is a great remedy for reflex pain patient also experience menses get suppressed with emotions from cold <sup>[13]</sup> rest, open air, pressure is ameliorating factor. Motion, flow, emotion, sitting are aggravating factor <sup>[9]</sup>.

# Correlation between Physiology of *Actaea racemosa* and Dysmenorrhea

The main origin of *Actaea racemosa* is neurotic origin where it lessens the frequency and force of the pulses, soothes pain and alley irritable and neuralgia or myalgia is the most prominent symptom of this drug. Even in the mechanism of dysmenorrhea is also due to contraction of muscles and involvement of prostaglandin and vasopressin where there also involvement of nerves is there. where both the physiology are similar even both pain are depressing, irritant action seems to be universal, the pain are aching, pressing remitting which are attended with great restlessness <sup>[14]</sup>.

# Description

Black cohosh is a smooth (glabrous) herbaceous perennial plant that produces large, compound leaves from an underground rhizome, reaching a height of 25–60 cm (9.8–23.6 in). The basal leaves are up to 1 m (3 ft 3 in) long and broad, forming repeated sets of three leaflets having a coarsely toothed (serrated) margin.

#### Background

Primary Dysmenorrea common known as menstrual cramps, is a prevalent gynecological concern affecting a significant portion of young females during their reproductive years this condition is characterized by recurrent cramp-like pelvic pain occurring just before or during menstruation, often accompained by various other symptom such as nausea, vomiting, fatigue and headache while it is generally not associate with an underlying pathology, the severity of primary dysmenorrheal can significantly impact a women's quality of life, leading to absenteeism from school, college and work. *Actaea racemosa* is a plant native to North Americans and has been traditionally used to native American population for various medicinal purposes. In homeopathy it is prepared in extremely diluted form 30C and 200C and is address various gynecological ad menstrual complaints, including dysmenorrhea. It will simulate the body's own healing mechanism.



Fig 1: Actaea racemosa

#### 3. Significance of the study

Addressing a common health concern: Primary dysmenorrheal is a widespread gynecological issue affecting young females, often leading to discomfort d decreased quality of life, and reduced productivity.

**Quality of life improvement:** Effective treatment of dysmenorrhea can lead to an improved quality of life for young females, reducing absenteeism from school, college and work and enhancing their overall well been. This study has the potential relief to a large population of individual experiencing menstrual cramps. The purpose of my study aims at exploring the effectiveness of homoeopathic medicines in primary dysmenorrhea to improve the quality o life with cost effective intervention.

#### 4. Review of literature

Iran Red, 2016 Sep, The present study examines the effects of homeopathy in comparison to a placebo on menstrual pain intensity and quality of life in women with primary dysmenorrhea. The study compared to a placebo, homeopathy did not significantly reduce menstrual pain intensity or the need for analgesics, and it did not markedly improve the overall quality of life of the participants. However, when compared to the participants' own preintervention values, there was an improvement in pain intensity and the physical health component of quality of life in the homeopathy group, with both groups experiencing an improvement in mental health quality of life.

**Strength of the study was using a placebo to control the group**: The inclusion of a placebo controlled group is a notable strength this design was helpful in maintain the blinding of the participants, the homeopath and the data collector, thus minimizing performance and detection

**Data Form two Consecutive Menstrual Cycles:** The use of data from two consecutive menstrual cycles before the intervention is a strength this approach may help prevent high attrition and provides a more comprehensive view of the participants experiences <sup>[17]</sup>

Eunice, Mokabane Mamokiti, 2009, The primary objective of this study is to evaluate the effect of a homoeopathic similimum on the symptos of primary dysmenorrheal in lack females. The evaluation is based on a range of symptoms, and the study also aims to assess changes in the overall well-being of the participants. The study begins by highlighting the prevalence and impact of dysmenorrheal emphasizing its disruptive nature in daily activities, including school attendance and work the review of relevant literature provide context for the study explaining the etiology of primary dysmenorrheal which is associated with increased prostagadi productiona and uterine muscle contraction <sup>[18]</sup>.

S Salari, MS Amiri, M Ramezani, AT Moghadam 2021.The chapter discuss about the ethno-pharmacological and phytochemical properties of Actaea racemosa, commonly known as balck cohash the study primarily focus on the utilization of Actaea racemosa in managing primary and secondary dysmenorrhea. The introduction provides a concise background on Actaea racemosa emphasizing its traditional uses in treating a variety of conditions such s muscular pain, headache inflammation and dysemmorhea it also highlighted the historical and geographical context explaining that Actaea racemosa is native to canada and the eastern united states. The chapter gave reports of the analysis of Actaea racemosa highlighting its indications for different plant extract. It also mentioned that approximately <sup>[13]</sup> chemical compound have been isolated and identifical from Actaea racemosa.

The study reveals that phenolic compounds, chromones triterpeniods and nitrogen –containing constituents are among the most important chemical in *Actaea racemosa*<sup>[19]</sup>.

# Aim and objective

# Aim

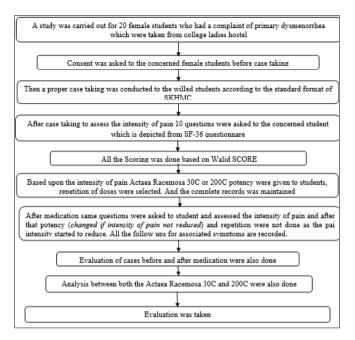
The aim of this study is to examine the efficacy of acatea racemosa 200 C and 30 C in treating primary dysmenorrhea. Additionally the study aims to determine the optimal potency for managing both severe and mild dysmenorrhea pain, with the ultimate goal of establishing a comprehensive understanding of the relationship between *Actaea racemosa* physiology and dysmenorrhea.

#### Objectives

- To Assess the effectiveness of *Actaea racemosa*30C in primary dysmenorrhea
- To Assess the effectiveness of *Actaea racemosa*200C in primary dysmenorrhea
- To evaluate the most preferable potency of *Actaea racemosa* in primary dysmenorrhea.
- This study also helps to find out the at what intensity the 30C and 200C potency can be given.

# Materials and Methods

#### Methodology in Precise



#### **Study Setting**

A study was carried out for 20 female students of college ladies hostel. Those who have complaint of primary dysmenorrhea. Initially a proper consent was asked to the concerned students before processing. Then proper cases taking were done which was conducted to the willed students according to the standard format of SKHMC.

#### Study design

This prospective clinical research was made in order to understand the management of primary dysmenorrhea in young females who are the age group of 18-23 years, under homoeopathic treatment. 20 cases diagnosed with the symptoms of primary dysmenorrehea without the secondary cause of pain which were selected from college ladies hostel. The female students who have the complaint of primary dysmenorrhea were asked to fill the SF-36 questionare and the data were recorded and separate case taking were done and noted the symptoms. Totally 30 cases were reported from those cases 20 cases were based on symptom similarity of Actaea racemosa. This was followed by the prescription Actaea Racemosa and potency were chosen by the intensity of pain according to WALLID score and doses were prescribed according to Homeopathic principles.

#### The Inclusion Criteria

- 1. The girls with complaint of primary dysmenorrhea
- 2. The girls with regular menstrual cycle for at least 3 months.
- 3. The age groups 18-23 years.
- 4. A subject without any pathological condition.

# **The Exclusion Criteria**

- 1. The girls who have irregular menses.
- 2. Those were taking medication related to menstrual issues.

student. This questionnaire the SF-36, measured pain intensity both before and after medication, with WALLID SCORES. Which Servs as the basis for scoring. The purpose of the scale and score is to soley to gauge the degree of discomfort. Student will be given a 30C or 200C potency and the frequency of doses will also be chosen based on the intensity. The purpose of this study is to evaluate *Actaea racemosa* 30C and 200C efficacy in treating primary dysmenorrhea.

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# Method of study

Clinical study

# Study size

The required study population 20 female students with complaint of primary dysmennorhea.

# Ethical considerations

The study was approved by the ethical committee of Sarada Krishna Homoeopathic medical college and hospital and hence there was no ethical issue. Ref ID: SKHMC/IEC/412/2023.

#### Selection tool WaLIDD Score

WaLIDD score has four criteria in which there are working ability, location of the pain, intensity of pain and duration which will determine the severity of the dysmenorrhea. Which integrated features of dysmenorrhea such as?

- 1. Number of anatomical pain locations (no part of the body, lower abdomen, lumbar region, lower limbs, and inguinal region).
- 2. Wong–Baker pain range (does not hurt, hurts a little, hurts a little more, hurts even more, hurts a lot, hurts a lot more)
- 3. Number of days of pain during menstruation (0, 1–2, 3– $4, \ge 5$ ), and
- 4. Frequency of disabling pain to perform their activities (never, almost never, almost always, always). Each tool's variable provided a specific score between 0 and 3, and the final score ranged from 0 to 12 points. The below mentioned table:1 is the WALLID SCORE TABLE

Working ability	Location	Intensity (Wong-Baker)	Days of pain
0: None	0: None	0: Does not hurt	0:0
1: Almost never	1: 1 site	1: Hurts a little bit	1:1-2
2: Almost always	2: 2-3 sites	2: Hurts a little more- hurts even more	2: 3-4
3: Always	3: 4 sites	3: Hurts a whole lot-Hurts worst	3:>5

Table 1: [Shrestha S, Joshi DD]

Notes

Score: 0 without dysmenorrhea,

1–4 mild dysmenorrhea

5–7 moderate dysmenorrhea

8–12 severe dysmenorrhea

# Abbreviation

WaLIDD, working ability, location, intensity, days of pain, dysmenorrheal before and after medication the responses will be collected, scored and analysed to evaluate the effectiveness of *Actaea racemosa*30C and 200C in students with primary dysmenorrhea.

#### Observation

Observation	based	on	WALLID	scores	in	pre-
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#### medication stage

The observation report presents the results of pain intensity in pre-medication stage using WALLID SCORING for group of 20 students. The scores recorded for each patient were analyzed, and the results are presents below table-2

Table 2: Intensity of pain based on WALLID score in students before treatment

S. No	Scores in pre-medication
1	2
2	3
3	2
4	2
5	3
6	3
7	2
8	2
9	3
10	3
11	2
12	2
13	3
14	2
15	1
16	1
17	2
18	3
19	2
20	3

The data underscore the importance of assessing and understanding the pain intensity experienced by students in pre-medication stage. This reflecting the diverse range of pain intensity levels among the participant

Table 2.1: WALLID Scores

Intensity (Wong-Baker)	
0: Does not hurt	
1: Hurts a little bit	
2: Hurts a little more-hurts even more	
3: Hurts a whole lot-Hurts worst	

This observation report represents the pain intensity among a group of students in pre-medication stage the data is represented using a pie-chart [figure:-1], and it revels the varying degree of pain according to WALLID SCORES.

A total 20 students were taken for clinical study in premedication stage and their pain intensity levels were categorized into.

- Hurts a whole lot 40% 1.
- 2. Hurts a little lot - 50%
- 3. Hurts a little bit - 10%
- 4. Does not hurts.- 0%

The pie chart has shown that the majority of the students (50%) reported with Hurts a whole lot in pre-medication stage, while a significant portion (40%) experienced Hurts a little lot In contrast, a smaller proportion of students (10%) reported Hurts a little bit.

# Observation based on wallid-scores in post -medication stage

#### Actaea racemosa in 200c potency

This observation report presents the findings regarding the

intensity of pain experienced by individual to the first day menses after taking Actaea racemosa200C potency medication. On observation a total of 13 students were given Actaea racemosa 200 C due to their high score in WALLID SCORES. In that 13 students, 10 students score has reduce to 1 (Hurts a little bit) and 2 other student were reported with intensity of 0 (Does not hurt). It is essential to consider that individual response to remedy while this data suggest a potential reduction in pain. The intensity of pain based on WALLID SCORES in students with Actaea racemosa200C potency after treatment. Were given in below table 2.

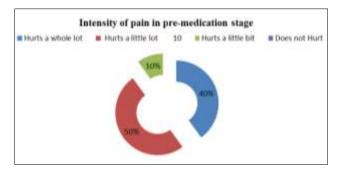


Fig 1: Intensity of pain in pre-medication stage Table 3: Intensity of pain based on WALLID score in students

with Actaea racemosa200C potency after treatment

S. No	SCORES in post medication
1	1
2	1
3	1
4	1
5	1
6	0
7	1
8	1
9	0
10	1
11	0
12	1
13	1

Table 3.1: WALLID Scores

0: Does not hurt 1: Hurts a little bit
1: Hurts a little bit
2: Hurts a little more-hurts even more
3: Hurts a whole lot-Hurts worst

The data is visually represented through a pie chart, providing an overview of the pain intensity assessment on the first day of menses after administrating Actaea racemosa 200C. A total number of 13 students were administred Actaea racemosa 200C from that 10 students pain have reduced from 3 to 1 and that is 77% of the pain has reduced. Rest 3 students pain has reduced from 2 to 0 which patient does not experienced any pain. Which is 22% of students had no pain after medication which has been depited in below Fig:- 2

#### Observation and comparison of intensity of pain in pre medication and post medication of Actaea racemosa 200 С

This observation report provides an analysis of the changes

in pain intensity among students in pre-medication and postmedication stages after the administration of *Actaea racemosa* 200 C in 1<sup>st</sup> day of menses:- The observation were catgoreized and depicted in below Table 3

- 1. 4 students experienced a reduction in pain intensity from score of 2 to 1.
- 2. Three students had their pain reduced from a score of 2 to 0
- 3. Six students saw their pain intensity decrease from 3 to 1

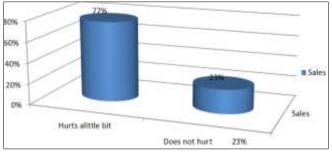


Fig 2: Intensity of pain in post-medication stage in 1st day of menses after *Actaea racemosa*200 C potency

 Table 3: Comparing the intensity of pain in pre-medicaion and post-medication stage

S. No	Potency	Pre medi	Post-medi
1	200C	2	1
2	200C	3	1
3	200C	2	1
4	200C	3	1
5	200C	3	1
6	200C	2	0
7	200C	3	1
8	200C	2	0
9	200C	3	1
10	200C	2	0
11	200C	2	1
12	200C	2	1
13	200C	3	1

# Pain intensity reduced from 2 to 1

The individualized data showed that there is a significant reduction in pain intensity among the students in premedication and post-medication stages after the administration of *Actaea racemosa*200C in  $1^{st}$  day. [fig :-3] 4 students experienced a reduction in pain intensity from score of 2 to 1

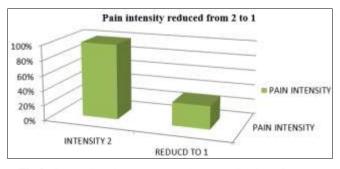
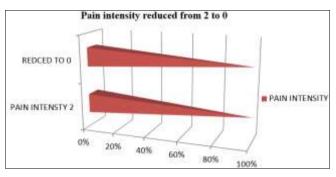


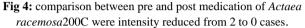
Fig 3: Comparison between pre and post medication of *Actaea racemosa*200C were intensity reduced from 2 to 1 case.

# Pain intensity reduced from 2 to 0

There was also a significant reduction in pain intensity

among the students in pre-medication and post-medication stages after the administration of *Actaea racemosa*200C in  $1^{st}$  day [fig:-4] 3 students experienced a reduction in pain intensity from score of 2 to 0





By individualization the below given data has significant reduction in pain intensity among the students in premedication and post-medication stages after the administration of *Actaea racemosa*200C in 1<sup>st</sup> day [fig:-5] 6 students experienced a reduction in pain intensity from score of 3 to 1

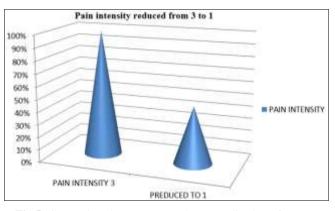


Fig 5: Comparison between pre and post medication of *Actaea* racemosa200C were intensity reduced from 3 to 1 case.

# 7.4 Observation Based on WALLID Scores In Post Medication Stage *Actaea racemosa* In 30c Potency

The ultimate findings regarding the intensity of pain experienced by individual to the first day menses after taking *Actaea racemosa*30C potency medication. On observation a total of- 9 students were given *Actaea racemosa*30 C due to their minimum score in WALLID SCORES.

# In that 9 students.

- 1. 2 students score from intensity 2 (hurts a little more) it have reduce to 0 (Does not hurt)
- 2. 1 other student were reported with intensity of 3 (hurts a whole lot) reduced to 0 (does not hurt).
- 3. 1 other student were reported with intensity of 3 (hurts a whole lot) have reduced 2(hurts a little more).
- 4. 1 other student have reported with intensity of 3(hurts a whole a lot) have reduced to 1 (hurts a little bit)
- 5. 2 other student have reported with intensity of 1 hurts a little bit) have reduced to 0 (does not hurt)
- 6. 2 other student have reported with intensity of 2 (hurts a little bit) have reduced to 0 (does not hurt)

It is essential to consider that individual response to remedy while this data suggest a potential reduction in pain

 Table 4: Intensity of pain based on WALLID score in students

 with Actaea racemosa30C potency after treatment

S. No	Scores on post medication
1	0
2	0
3	0
4	2
5	1
6	1
7	0
8	0
9	1

Table 4.1: WALLID Scores

Intensity (Wong-Baker)			
0: Does not hurt			
1: Hurts a little bit			
2: Hurts a little more-hurts even more			
3: Hurts a whole lot-Hurts worst			

Total 9 students have administered 30C potency which is 100%

- 1. 2 students score from intensity 2 (hurts a little more) it have reduce to 0 (Does not hurt) 22.22%
- 2. 1 other student were reported with intensity of 3 (Hurts a whole lot) reduced to 0 (Does not hurt) 11.11%
- 3. 1 other student were reported with intensity of 3 (hurts a whole lot) have reduced 2 (hurts a little more) 11.11%
- 4. 1 other student have reported with intensity of 3 (hurts a whole a lot) have reduced to 1 (hurts a little bit) 11.11%
- 5. 2 other student have reported with intensity of 1 hurts a little bit) have reduced to 0 (does not hurt) 22.22%
- 6. 2 other student have reported with intensity of 2 (hurts a little bit) have reduced to 0 (does not hurt) 22.22%

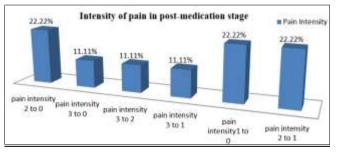


Fig 6: Intensity of pain in post-medication stage after Actaea racemosa30 C potency

# 7.5 Observation and comparison of intensity of pain in pre medication and post medication of *Actaea racemosa*30 C

This observation report provides an analysis of the changes in pain intensity among students in pre-medication and postmedication stages after the administration of *Actaea racemosa* 30C: The observations were catgorized as follows:

- 1. 2 students score from intensity 2 (hurts a little more) it have reduce to 0 (Does not hurt)
- 2. 1 other student were reported with intensity of 3 (hurts a whole lot) reduced to 0 (does not hurt).
- 3. 1 other student were reported with intensity of 3 (hurts

a whole lot) have reduced 2 (hurts a little more).

- 4. 1 other student have reported with intensity of 3(hurts a whole a lot) have reduced to 1 (hurts a little bit)
- 5. 2 other student have reported with intensity of 1 hurts a little bit) have reduced to 0 (Does not hurt)
- 6. 2 other student have reported with intensity of 2 (hurts a little bit) have reduced to 0 (Does not hurt)

It is essential to consider that individual response to remedy while this data suggest a potential reduction in pain. The below table contains comparison of intensity of pain between the students before and after administrating the *Actaea racemosa* 30C.

 Table 5: Comparing the intensity of pain in pre-medicaion and post-medication stage

S. No	Potency	PRE-MEDI	POST-MEDI
1	30C	2	0
2	30C	2	0
3	30C	3	0
4	30C	3	2
5	30C	3	1
6	30C	1	0
7	30C	1	0
8	30C	2	1
9	30C	2	1

#### Pain intensity reduced from 2 TO 0

A significant reduction in pain intensity which is shown in both pre medication and post-medication stages after the administration of *Actaea racemosa*30C in. [fig:-7] 2 students experienced a reduction in pain intensity from score of 2 to 0

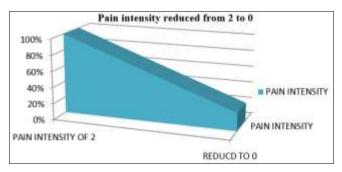


Fig 7: Comparison between pre and post medication of *Actaea racemosa* 30C were intensity reduced from 2 to 0 cases.

# Pain intensity reduced from 3 to 0

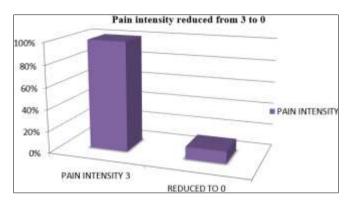
The observed data showed that there is a significant reduction in pain intensity among the students in premedication and post-medication stages after the administration of *Actaea racemosa*30C which have reduced from severe pain to no pain. [fig:-8] 1 students experienced a reduction in pain intensity from score of 3 to 0

#### Pain intensity reduced from 3 to 2

The observed data showed that there is a significant reduction in pain intensity among the students in premedication and post-medication stages after the administration of *Actaea racemosa* 30C in [fig:-9]1 students experienced a reduction in pain intensity from score of 3 to 2

#### Pain intensity reduced from 3 to 1

The observed data showed that there is a significant reduction in pain intensity among the students in premedication and post-medication stages after the administration of *Actaea racemosa*30C [fig:-10] 1 students experienced a reduction in pain intensity from score of 3 to1



**Fig 8:** Comparison between pre and post medication of *Actaea racemosa*30C were intensity reduced from 3 to 0 cases.

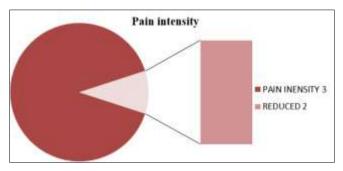
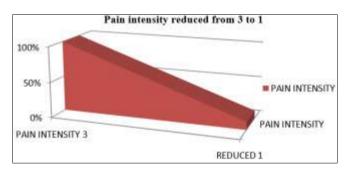


Fig 9: Comparison between pre and post medication of *Actaea* racemosa30C were intensity reduced from 3 to 2 cases



**Fig 10:** Comparison between pre and post medication of *Actaea* racemosa30C were intensity reduced from 3 to 1 cases

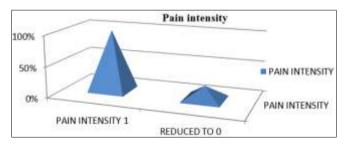


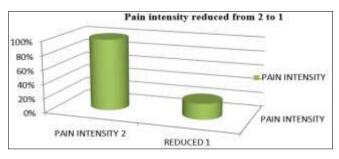
Fig 11: Comparison between pre and post medication of *Actaea* racemosa30C were intensity reduced from 1 to 0 cases

#### Pain intensity reduced from 1 to 0

The observed data showed that there is a significant reduction in pain intensity among the students in premedication and post-medication stages after the administration of Actaea racemosa30C [fig:-11] 2 students experienced a reduction in pain intensity from score of 1 to 0

#### Pain intensity reduced from 2 to 1

The observed data showed that there is a significant reduction in pain intensity among the students in premedication and post-medication stages after the administration of *Actaea racemosa* 30C [fig:-12] 2 students experienced a reduction in pain intensity from score of 2 to 1



**Fig 12:** Comparison between pre and post medication of *Actaea racemosa*30C were intensity reduced from 2 to 1cases

#### **Observation based on associated symptoms**

Around 20 patients all the patient had different associated symptoms with them. I have taken the 2 days follow up for all the patients regarding their associated symptom where I have got 10 different associated symptom over all. Majority of the patients had a complain of weakness of body. Minority on vertigo while standing [ table 6]

Associated symptom presented in each of the patient

**Table 6:** The below given table shows about the comparisonbetween associated symptoms with the main complaint on their 1stday follow up and 2nd day follow up

Initial	1 <sup>st</sup> day follow up	2 <sup>nd</sup> follow up
Nausea	Persist	Better than before
Headache	Persist	Better than before
Weakness of body	Persist	Good
Breast tenderness	Better	Nil
cold	Persist	Better
diarrhea	Persist	Better
constipation	Persist	Better than before
Vertigo while standing	Better	Nil
Leg pain	Better	Nil
Body pain	Better	Good

#### Associated symptoms presented in pre-medication stage

The below given cases are of associated symptoms with main complaint in pre treatment stage 3 cases (11.5%) Nausea, 3 cases (11.5%) Headache, 2 cases (7.6%) leg pain,5 cases (19.2%) weakness of body, 3 cases (11.5%) breast tenderness, 3 cases (11.5%) cold 2 cases (7.6%) diarrhea, 4 cases (15.3%) constipation and 1 cases (3.8%) of vertigo while standing.

#### Associated symptoms presented in post-treatment stage

The below given cases are of associated symptoms with main complaint in pos treatment stage Patients who complained of breast tenderness and vertigo while standing have got relieved from their symptom, Headache out of 3 cases.1 case have cured. Other patients have showed

improved. Nausea out of 3 cases 1 case have cured. Patients with Weakness of body have showed drastic improvement. And all other symptom have showed improvement.

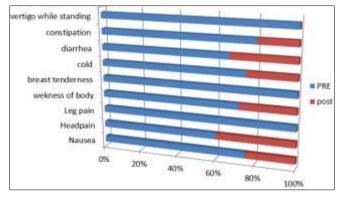


Fig 12: Comparison of associated symptoms in pre and post medication.

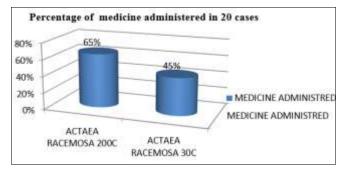
# Observation based on medicine administred

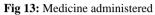
Comparison of cases administered with *Actaea racemosa* 200C and 30C Among 20 cases, 13 cases (65%) were given 200C 9 cases (45%) were given 30C

 Table 7: The below table contains total no of cases which have prescribed Actaea racemosa 200C and 30C

S. No	Medicine administred	No. of cases	Percentage
1.	Actaea Racemosa 200C	13	65%
2.	Actaea Racemosa 30C	9	45%

For 2 Cases initially have given 30 C potency were pain have reduced partially so, again after 2 hrs interval have given 200 C potency were the intensity of pain have reduced completely.





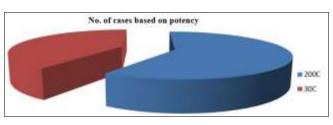


Fig 14: No. of cases based on potency

#### Potency administered

 $200^{th}$  potency was administered to 13 patients (65%) . according to the susceptibility o the patient  $200^{th}$  potency was administered .30^{th} potency was administered for 9 cases (45%).

 Table 8: Below given table shows total no of cases and their potency administration

S. No	Potency	No. of cases	Percentage
1.	200C	13-Cases	65%
2.	30C	9-Cases	45%

**Table 10:** Explains that mean pain score before treatment is 8.00 and the same after treatment was 3.40.

		Mean	Ν	Std. Deviation	Std. Error Mean
D 1	Pain_Score_Before_Treatment	2.46	13	.519	.144
Pair 1	Pain_Score_After_Treatment	.85	13	.555	.154

 Table 11: Paired Samples Test

			Paired Differences						
		Mean	Std. Deviation	Std. Error Mean	95% Confider the Dif		t	df	Sig. (2- tailed)
			Deviation	Mean	Lower	Upper			
Pair 1	Pain_Score_Before_Treatment Pain_Score_After_Treatment	1.615	.506	.140	1.309	1.921	11.502	212	.000

Since p value < 0.05, null hypothesis is rejected.

#### Statistical analysis

#### Statistical analysis for Actaea racemosa 200 C

In order to find the effectiveness of the *Actaea racemosa*200C, the pain score before treatment and after treatment were assessed and it was tested with statistical tool.

# Statistical Tool Used: Paired t test

Inference: There is effectiveness of the *Actaea racemosa* 200 C medicine on the patients with respect to pain.

#### Statistical analysis for Actaea racemosa 30 c

In order to find the effectiveness of the *Actaea racemosa* 30 C, the pain score before treatment and after treatment were assessed and it was tested with statistical tool. Statistical Tool Used: Paired t test

Table 12: Paired Samples Statistics

		Mean	Ν	Std. Deviation	Std. Error Mean
Pair 1	Before_Treatment_30	2.20	10	.789	.249
	After_Treatment_30	.50	10	.707	.224

Table 13: Paired S	amples Test
--------------------	-------------

			Paired Differences						1
		Mean Std.		Std. Error	95% Confidence Interval of the Difference		t	df	Sig. (2- tailed)
			Deviation	Mean	Lower	Upper			
Pair 1	Before_Treatment_30 - After_Treatment_30	1.700	.949	.300	1.021	2.379	5.667	9	.000

#### Discussions

Primary dysmenorrheal, characterized by severe menstrual cramp, which is common gynecological issue affecting many young women. The research was conducted in 20 patient (Age 18 to 21) satisfying the inclusion and exclusion criteria. A case were taken from college hostel.

A detailed case was taken for each and every case and symptom collected. Prescription, was made on the basis of homeopathic similimum. Pre and post treatment assessment was compared. Primary dysmenorrhea was very painful for 60% of the patient and around the patient have experienced the weakness of the body and some of the patients were tolerate the pain. The pain was mainly on lower abdomen which increased during physical activity. Many patients were had their severe pain on their 1st day of menses. The symptom and their complaints showed great change after homeopathic treatment. At the end of study there was a variation in the number of cases. Out of 20 cases (100%) 8 cases (40%) of cases the pain have subsided completely with the intensity of 0. The Actaea racemosa is another great remedy which is strong influence on female organ. It also act mainly for pain in ovarian region were, Actaea racemosa contain, rhizome contains triterpene glycosides 23-epi-26-deoxyactein (formerly called actein. 27deoxyactein), cimicifugoside, phenolic acids (Isoferulic acid and fukinolic acid), flavonoids, volatile oils, tannins and other pharmacologically active ingredients. Prior case taking were done to assess the cases the SF-36 questionnaire were used to assess the intensity of pain and assessed with the help of WALLID score which is scoring scale used to assess the dysmenorrhea pain used the WALLID SCALE and scored the intensity of pain, with that intensity the potency were selected and prescribed them about 40% of cases they got full relief from pain other all showed drastic improvement in pain intensity along with pain intensity .are the 20 cases were present with other associated symptoms also. 10 patients were reported with weakness of body 3 student were had nausea and 4 students had constipation and so, on. After homoeopathic treatment for period of 1 follow up for the patient on 1st day of menses. Were the 2nd follow up hasn't one due to the pain started and then gradually started to subsided so, haven't given the 2nd dose which will be like disturbing the cure. With the intensity of pain the associated symptoms all also have reduced. Hence homeopathy is holistic (included mind, spirit and body only focus on the patient particular organ (disease organ) homeopathically treat the patient as a whole. At the initial menses the associated symptom the present cases leg pain (7.6%), breast tenderness (11.5%), vertigo when standing (3.8%) were completely relieved for main symptom. Nausea (11.5%). Headache (1.5%) weakness of body (1.2%) diarrhea (7.6%), constipation (15.3 %) as the symptom persisted but their intensity have reduced.

## Prescriptions

The prescribed medicine was Actaea racemosa and potency

used was 30 C and 200 C and in most severe pain cases 200 C potency were indicated and with less severe cases 30 C potency were indicated.

# Conclusion

On evaluating 20 cases of primary dysmenorrheal pre and post treatment the following conclusion were made

- 1. Homeopathy can be effectiveness in the treatment of primary dysmenorrhea. There were significant improvement in all signs and symptoms.
- 2. *Actea racemosa* as played a effective role in the treatment of primary dysmenorrhea especially for patients who had severe pain in lower abdomen it may radiate to the back with medial aspect of thigh.
- 3. The most common symptom was pain in the lower abdomen which ma radiate to back and medial aspect of thigh
- 4. *Actea racemosa* 200<sup>th</sup> potency has well action on very severe cases
- 5. And 30c potency had action less severe cases after administration of medicine for 1 day almost all the cases the pain intensity have reduced and many of the associated symptom have reduced.
- 6. After homoeopathic treatment, there was a significant reduction in all signs and symptoms of all 15 cases.

#### Summary

In this summary 20 cases of primary dysmenorrheal were identified prescribed under proper similimum on analyzing the pre and post treatment an improvement was noted in all signs, symptoms and with associated symptoms as well. The symptom in the case of primary dysmenorrheal which got improved by homeopathic medicine showed an evident the homeopath has a efficacious part in the treatment of primary dysmenorrheal.

Therefore, after complete analysis of the result obtained in pre and post treatment. It is evident that homeopathic is indeed a effective choice for treatment in cases of dysmenorrhea. There by helping the individual perform their daily activities without any hindrance and subsequently improve their quality of living.

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# Annexure – I

#### Patient information sheet

S. No	OP Number	Name of patient	Age/Sex	Unit/Department	Diagnosis
01	8043/19	XXXX	23	IB	Primary dysmenorrhea
02	7813/20	XXXX	22	IB	Primary dysmenorrhea
03	7900/19	XXXX	21	IB	Primary dysmenorrhea
04	7928/19	XXXX	22	IB	Primary dysmenorrhea
05	7036/19	XXXX	23	IB	Primary dysmenorrhea
06	7387/19	XXXX	22	IB	Primary dysmenorrhea
07	6881/19	XXXX	21	IB	Primary dysmenorrhea
08	6890/19	XXXX	21	IB	Primary dysmenorrhea
09	1890/22	XXXX	22	IB	Primary dysmenorrhea
10	1834/22	XXXX	21	IB	Primary dysmenorrhea
11	2732/22	XXXX	23	IB	Primary dysmenorrhea
12	13688/19	XXXX	22	IB	Primary dysmenorrhea
13	3664/19	XXXX	21	IB	Primary dysmenorrhea
14	2568/21	XXXX	20	IB	Primary dysmenorrhea
15	3672/21	XXXX	21	IB	Primary dysmenorrhea
16	2765/19	XXXX	22	IB	Primary dysmenorrhea
17	2378/19	XXXX	22	IB	Primary dysmenorrhea
18	2789/22	XXXX	23	IB	Primary dysmenorrhea
19	2372/19	XXXX	22	IB	Primary dysmenorrhea
20	2456/19	XXXX	21	IB	Primary dysmenorrhea