“To Assess the effectiveness of Black cohosh in Various potencies in Primary Dysmenorrhoea of adolescent girls” - A Clinical study

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Abstract
Primary Dysmenorrhea is literally termed as Painful menses. It is an cyclical lower abdominal pain due to which most of the women suffer with painful menses which interrupts their daily routine. Dysmenorrhea may present with pain in abdomen before or during menses, associated with nausea, tachycardia, irritability, fatigue, headache. Cause of pain due to excessive vasopressin, leukotrienes, prostaglandin, myometrial ischemia, uterine malformation. In this study 30 cases presenting with complaints of primary dysmenorrhea with the symptoms of Black cohosh is randomly selected. Selection of potency based on the susceptibility and improvement was accessed by the variability of symptoms before and after the treatment. Out of 30 cases 22 had shown marked improvement and 7 cases had moderate improvement & 1 case had no improvement. This study determines the effectiveness of Black cohosh in the treatment of Primary dysmenorrhea in adolescent girls.

Keywords
Adolescent girls, Black cohosh, Placebo, Primary Dysmenorrhea.

Introduction
Primary dysmenorrhea is most common complaint seen in most of the adolescent girls. Dysmenorrhea will affect her day to day activities involving physical and emotional symptoms. This may also interrupt her educational & social life due to which there may be absenteeism for which will affect her career upcoming. Usually to overcome with pain girls get habituate in seeking Expert advise and analgesics are encouraged to overcome the pain and with few self measures, which is not suggestible due to
the reason on longstanding procedure the intake of analgesics may lead to adverse effects on various systems of the body. Homoeopathic medicine is a safe mode of treatment without placing patients at risk neither have any adverse effects.

Homoeopathic medicines will provide capacity in treating the dysmenorrhoea in an effective manner with natural substances. Homoeopathy is system which is based on totality of symptoms. Cimicifuga racemosa\textsuperscript{13} also called as Black cohosh is a drug which is having more action on female sexual symptoms\textsuperscript{3} (Uterus&Ovaries). This remedy helps out in relieving the pain immediately\textsuperscript{14}. Sudden violent pain, cutting pain in sacrum & abdomen. There are various remedies based on totality. Black cohosh is one among the remedies which will relieve the pain immediately. There is great sensitiveness & Intolerance to pain. Uterine cramps and heaviness in both lower limbs is relieved.

Primary Dysmenorrhea is literally termed as Painful menstruation. Most of the women do suffer with painful menses\textsuperscript{11} which intervene in their day to day activities, cause of pain due to excessive vasopressin, leukotrienes, prostaglandin, myometrial ischemia, uterine malformation\textsuperscript{1}. Dysmenorrhea may present with pain in abdomen before or during menses, associated with nausea, tachycardia, irritability, fatigue, headache\textsuperscript{10}. In this study 30 cases presenting with complaints of primary dysmenorrhoea\textsuperscript{2} is selected with the symptoms of Black cohosh is randomly selected. Potency is selected according to susceptibility and improved was assessed by intensity of symptoms before and after the treatment. Out of 30 cases 22 had shown marked improvement and 7 cases had moderate improvement & 1 case had no improvement. This study determines the effectiveness of Black cohosh in the treatment of Primary dysmenorrhea in adolescent girls.

Need For The Study:

Most of the girls usually have complaints of dysmenorrhea which will effect their daily routine, which cause, various mood swings, depression\textsuperscript{3}. The most common complaint where most of the females will suffer at least once in lifetime. Homoeopathic remedies are very effective in treating gynaecological diseases. There are many cases which report to MNR Homoeopathic hospital for treatment. Homoeopathy is much to offer in these condition, by providing prompt relief of the symptoms, but it is also capable of checking the further predisposition to these conditions in sensitive individuals.

By this study, we are trying to show the improvement of patients with dysmenorrhea\textsuperscript{5} complaints which can be successfully treated with homoeopathic medicine in an affordable cost.

Aims And Objectives

1. To find the role of Black cohosh in managing Primary Dysmenorrhoea
2. To find the action of various potencies of Black cohosh in Primary Dysmenorrhoea.
3. To find the improvement by follow up analysis.

Materials And Methods

Sources of data: Totally 30 cases of Primary Dysmenorrhoea patients attending the Out Patient Department, In Patient Department and Peripheral centers of MNR Homoeopathic Medical College Hospital.

Method of collection of data:

- Sample will be collected according to Simple random sampling.
- Data will be obtained by case taking in MNR Homoeopathic Medical College Case format.
- Medicine will be selected based on the analysis and repertorization where ever necessary.
- Prescription will be based on the reference to standard text book.
- Improvement is assessed based on disease intensity scale before and after treatment.
- Review of the case will be done weekly and followed up for a period of 1 month.
Inclusion Criteria:

- Age between 12-18
- Only Adolescent girl

Exclusion Criteria:

- Males.
- Age below 12 and above 18.
- Dysmenorrhea with complications

Observation and Results:

Sample obtained from 30 cases from the patients who attended the Out Patient Department & Rural centres of MNR Homoeopathic Medical College and Hospital was taken for this study. All the thirty cases were followed up. These cases were subjected to statistical study. The following tables reveal the observation and result of this study.

Distribution of cases according to potency: Chart no. 1

<table>
<thead>
<tr>
<th>S.no</th>
<th>Potency</th>
<th>Number of patients</th>
<th>Percentage</th>
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<td>17%</td>
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<tr>
<td>2</td>
<td>200</td>
<td>7</td>
<td>23%</td>
</tr>
<tr>
<td>3</td>
<td>1M</td>
<td>1</td>
<td>3.3%</td>
</tr>
<tr>
<td>4</td>
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<td>7</td>
<td>23%</td>
</tr>
<tr>
<td>5</td>
<td>0/6</td>
<td>10</td>
<td>33.3%</td>
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Figure no. 1

Chart no. 2: Distribution of cases according to improvement:

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<th>S.no</th>
<th>Improvement status</th>
<th>No. of Patient</th>
<th>Percentage</th>
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<td>No improvement</td>
<td>1</td>
<td>3.3%</td>
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<tr>
<td>2</td>
<td>Moderate improvement</td>
<td>7</td>
<td>23.3%</td>
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<tr>
<td>3</td>
<td>Good Improvement</td>
<td>22</td>
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Figure no. 2

Chart no. 3

Statistical Analysis
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<th>y</th>
<th>d-x-y</th>
<th>d-d</th>
<th>(d-d)^2</th>
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</tr>
</tbody>
</table>
Question to be answered:
Is there any difference between the scores taken before the treatment and scores after the homoeopathic treatment?

Null Hypothesis:
There is no differences between the scores taken before the treatment and scores after the homoeopathic treatment?

Standard error of the mean differences:
The mean of differences, \( d \) = \( \frac{\sum d}{n} = \frac{134}{30} = 4.5 \)

The estimate of population standard deviation is given by,
\[
S_d = \sqrt{\frac{\sum (d-d)^2}{n-1}}
\]

\[\sum (d-d)^2 = 205.5\]
\[
SD = \sqrt{\frac{\sum (d-d)^2}{n-1}} = \sqrt{\frac{205.5}{30-1}} = \sqrt{7.08}
\]

D. Critical ratio \( t = \frac{d}{s_d/\sqrt{n}} \)
\[
= \frac{4.5}{2.66/\sqrt{30}}
= \frac{4.5}{0.48}
= 9.37
\]

Comparison with tabled value:
This critical ratio, \( t \) follows a distribution with \( n-1(29) \) degrees to freedom. The 5% level is 2.045 and 1% level is 2.756 for 29 degrees of freedom. Since the calculated value 9.37 is greater than tabled value at 5% and 1% level, we reject the null hypothesis.
Inference:

This study provides to say that, there is a significant reduction in the diseased complaints. Intensity scores after Homeopathic treatment.

Therefore, different potencies of Black Cohosh is effective in treating Primary dysmenorrhea.

Discussion:

As we know “Time and Health” both are very much precious, at every doorstep each and every adolescent girl will be suffering with menstrual pain & captivated in performing their regular routine due to primary dysmenorrhoa. Due to which there time scheduled will be disturbed. Main aim of physician is to give initial relief to the patient, to reduce the intensity of pain and improve the quality of life.

In this research 30 cases of primary dysmenorrhea are taken among adolescent girls. Among 30 cases, 15 cases are under treatment of Various potencies of Black cohosh and other 15 cases are given placebo in liquid form. All the cases are taken between the age group of 12–18 years and only adolescent girls are included.

This study included patients with age group between 12 – 18 years. According to this study, out of 30 cases, 22 cases were improved, 7 cases had shown moderate improvement. 1 case is same. It was known that Black cohosh is effective in treating Primary dysmenorrhea.

Conclusion:

In the study, out of 30 cases, 22 cases were improved, 7 cases had shown moderate improvement. 1 case is same. There were 2 groups, 15 cases of each group. 15 cases with Black cohosh various potencies group 14 cases were improved, 1 case was moderately improved, while in 15 cases of Placebo group 10 cases were improved, 4 cases were moderately improved and 1 case was remaining the same.

So more number of cases were improved in Black cohosh of various potencies group than placebo group so it is known that Black cohosh of various potencies that is effective in treating Primary Dysmenorrhea.

References:


13. H.C.Allen Keynotes Rearranged & Classified with leading remedies of Materia medica added with other leading nosodes & bowel nosodes 10th edition Indian books & Periodicals publishers.