Study of efficacy of NACO – Kit 6 in Acute Pelvic Inflammatory Disease.

1. Dr. Anandakumari Matangi, 2. Dr. K. Gowthami, 3. Dr. Abhizna Bommiti, 4. Dr. Pentakota Anusha, 5. Dr. Sridurga Nagabheri, 6. Dr. Alpha Mehar Manukonda.

1. Assistant Professor, Department of Obstetrics and Gynaecology, Andhra Medical College, Government Victoria Hospital for Women and Children, Visakhapatnam, Andhra Pradesh, India.
2. Post Graduate, Department of Obstetrics and Gynaecology, Andhra Medical College.
3. Post Graduate
4. Post Graduate
5. Post Graduate
6. Post Graduate

Corresponding Author: Dr. Anandakumari Matangi

Abstract: Aim and Objectives of Study:
To manage pelvic inflammatory disease effectively.
To study the efficacy of NACO-kit 6 in relieving the symptoms of pelvic inflammatory disease.

Material and Methods:
100 cases with provisional clinical diagnosis of Pelvic Inflammatory Disease were given Kit 6 and efficacy of Kit 6 was studied after 1 month. This is a prospective non randomised study conducted at Government Victoria Hospital for Women and Children, Visakhapatnam, Andhra Pradesh, India. Most of the cases are taken after careful history and clinical examination, investigated and treatment was given for 1 month, results are studied and observations are recorded.

Inclusion Criteria:
- Bilateral lower abdominal pain
- Fever > 101°F
- Fornicial tenderness on pelvic examination
- CBC showing Total count > 10000 cells/cumm
- CRP > 30 mm/hr
- Vaginal secretions showing leucocytosis
- Ultrasound evidence of PID i.e free fluid in Pouch of Douglas

Exclusion Criteria:
- Chronic Pelvic Inflammatory Disease
- Urinary Tract Infection are excluded.

Results:
In 82% of cases symptoms are relieved; 18% cases needed parenteral regimen.

Efficacy of Kit 6 - 89.7%

Conclusion:
- Kit 6 is cost effective and freely available from NACO
- It is useful to manage Acute Pelvic Inflammatory Disease as first line therapy
- It will prevent chronic Pelvic Inflammatory Disease

Keywords: Pelvic Inflammatory Disease, kit 6, CRP, leucocytosis, vaginal discharge.

I. Introduction:
Pelvic inflammatory disease is an infection of upper genital tract-Uterus, Fallopian tube, ovaries and peritoneum.

Symptoms include-Lower abdominal pain, Cervical discharge, Fever, Abnormal uterine bleeding and this condition got sequel like chronic pelvic inflammatory disease, hydrosalpinx and pyosalpinx, tubal blockage, tubo-ovarian abscess and multiple abscess in abdominal cavity.
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Definition:
Pelvic Inflammatory disease is a spectrum of infection and inflammation of upper genital tract organs typically involving the endometrium, fallopian tube, ovaries, pelvic peritoneum and surrounding structures. Its prevalence is increasing in tendency and it is a condition where upper genital tract involved leading to 1. Endometritis 2. Salpingitis 3. Pelvic peritonitis 4. Tubo ovarian abscess

Symptoms:
Symptoms usually appears at the time or after menstruation and they may present with bilateral lower abdominal and pelvic pain which is characterised as dull aching pain, aggravated by work/intercourse. There may be fever, nausea, vomiting, lassitude, headache, spurious diarrhoea –if there is pelvic peritonitis due to rectal irritation.

- Another annoying symptoms are irregular and excessive vaginal bleeding due to endometritis and abnormal vaginal discharge which become copious and purulent.

Signs:
1. Presents with Temperature of >38.3 degrees C and tachycardia
2. Abdominal palpation – tenderness below the umbilicus.
3. Per vaginal examination – shows abnormal vaginal discharge which may be purulent
And congested external urethral meatus and opening of Bartholin’s duct.
4. Per speculum – shows Cervix congestion and purulent discharge + bimanual examination reveals – B/lornicial tenderness +;
- cervical motion tenderness
- mass may be felt through fornix.

Aim And Objectives Of Study:
- To manage pelvic inflammatory disease effectively.
- To study the efficacy of NACO-kit 6 in relieving the symptoms of pelvic inflammatory disease.

II. Material And Methods:
100 cases with provisional clinical diagnosis of Pelvic Inflammatory Disease were given Kit 6 for 2 weeks and efficacy of Kit 6 was studied after 1 month. This is a prospective non randomised study conducted at Government Victoria Hospital for Women and Children, Visakhapatnam, Andhra Medical College, for a period of one year from 1-4-2018 to 31-3-2019 were studied. Most of the cases are taken after careful history and clinical examination, investigated and treatment was given for 1 month, results are studied and observations are recorded.

Kit 6 contents:- Cefixime 400 mg single dose; Metronidazole 400mg BD for 14 days + Doxycycline 100mg BD for 14 days.
INCLUSION CRITERIA:
Bilateral lower abdominal pain
Fornical tenderness on pelvic examination
CBC showing Total count >10000 cell/cumm
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Ultrasound evidence of PID i.e free fluid in Pouch of Douglas

EXCLUSION CRITERIA:
Chronic Pelvic Inflammatory Disease, Urinary Tract Infection are excluded.

Observations And Results:
AGE
PARITY
HB LEVELS
Menstrual pattern
TEMPERATURE
CBC COUNT
VAGINAL SECRETIONS
CRP
ULTRASOUND FINDINGS

AGE GROUP:

<table>
<thead>
<tr>
<th>Age Group</th>
<th>N=100</th>
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</thead>
<tbody>
<tr>
<td>15-20 years</td>
<td>2</td>
</tr>
<tr>
<td>21-25 years</td>
<td>27</td>
</tr>
<tr>
<td>26-30 years</td>
<td>24</td>
</tr>
<tr>
<td>31-35 years</td>
<td>16</td>
</tr>
<tr>
<td>36-40 years</td>
<td>18</td>
</tr>
<tr>
<td>41-50 years</td>
<td>10</td>
</tr>
<tr>
<td>&gt;50 years</td>
<td>3</td>
</tr>
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</table>

PARITY:

<table>
<thead>
<tr>
<th>Parity</th>
<th>N=100</th>
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<tbody>
<tr>
<td>Nulliparous</td>
<td>4</td>
</tr>
<tr>
<td>G1</td>
<td>36</td>
</tr>
<tr>
<td>G2</td>
<td>39</td>
</tr>
<tr>
<td>G3</td>
<td>12</td>
</tr>
<tr>
<td>G4 or G5</td>
<td>9</td>
</tr>
</tbody>
</table>
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MARITAL LIFE:

<table>
<thead>
<tr>
<th>&lt;5 YEARS</th>
<th>6-10 YEARS</th>
<th>11-15 YEARS</th>
<th>16-20 YEARS</th>
<th>21-25 YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>34</td>
<td>22</td>
<td>8</td>
<td>7</td>
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</table>

![Bar chart showing marital life distribution](image)

MENSTRAL CYCLE:

<table>
<thead>
<tr>
<th>NORMAL CYCLE</th>
<th>MENORRHAGIA</th>
<th>POLYMENORRHOEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>65</td>
<td>15</td>
</tr>
</tbody>
</table>

![Bar chart showing menstrual cycle distribution](image)

HAEMOGLOBIN: % of anemia

<table>
<thead>
<tr>
<th>MILD</th>
<th>MODERATE</th>
<th>SEVER</th>
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</thead>
<tbody>
<tr>
<td>24</td>
<td>28</td>
<td>18</td>
</tr>
</tbody>
</table>

![Bar chart showing haemoglobin distribution](image)
CBC leucocytosis:

<table>
<thead>
<tr>
<th></th>
<th>&gt;11,000-15000cells</th>
<th>15000-25000cells</th>
<th>&gt;25000cells</th>
</tr>
</thead>
<tbody>
<tr>
<td>leucocytosis</td>
<td>23</td>
<td>48</td>
<td>9</td>
</tr>
</tbody>
</table>

TEMPERATURE:

<table>
<thead>
<tr>
<th></th>
<th>99-101 F</th>
<th>101.1-102.9 F</th>
<th>&gt;103 F</th>
</tr>
</thead>
<tbody>
<tr>
<td>temperature</td>
<td>23</td>
<td>99</td>
<td>18</td>
</tr>
</tbody>
</table>
VAGINAL SECRETIONS CONTAINING LEUCOCYTOSIS:

<table>
<thead>
<tr>
<th>Present</th>
<th>Absent</th>
</tr>
</thead>
<tbody>
<tr>
<td>82%</td>
<td>18%</td>
</tr>
</tbody>
</table>

CRP VALUES>10mg /dl:

<table>
<thead>
<tr>
<th>10-20 mg/dl</th>
<th>20-30mg/dl</th>
<th>&gt;30mg/dl</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>62</td>
<td>23</td>
</tr>
</tbody>
</table>

FREE FLUID IN POUCH OF DOUGLAS: (ultrasound finding)
Almost all 100 cases show free fluid in Pouch of Douglas.

Parameters after 6 weeks of diagnosis:

CLINICAL EXAMINATION – PAIN AND TENDERNESS:
TEMPERATURE:

![Temperature Chart]

CBC COUNT:

![CBC Count Chart]

VAGINAL SECRETIONS LEUCOCYTOSIS:

![Vaginal Secretion Leucocytosis Chart]

CRP:

![CRP Values Chart]
III. Discussion:
Out of 100 cases taken for study who had Pelvic Inflammatory disease was given kit 6 for 2 weeks and followup done after 4 weeks and the results are as follows:
1. Complete blood count were within normal limit in 90% of cases.
2. Temperature was within normal limit in 95% of cases.
3. Lower abdominal pain and tenderness decreased in 92% of cases.
4. Vaginal secretions leucocytosis decreased in 80% of cases.
5. C-reactive protein was within normal limit in 82% of cases.
6. Ultrasound shows disappearance of free fluid in pouch of douglas in 82% of cases.

IV. Conclusion:
Based on the above study kit 6 is found to be effective in treatment of Pelvic Inflammatory disease with an overall efficacy of 89.7%

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