EFFICACY OF SURGICAL INTERVENTION FOR THE TREATMENT OF PAIN AND IMPROVEMENT OF QUALITY OF LIFE IN PATIENTS WITH ENDOMETRIOSIS.

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AIMS AND OBJECTIVES

1. To assess the efficacy of surgical interventions offered in Cork University Maternity Hospital (CUMH) for the treatment of endometriosis at relieving pain and improving quality of life.

2. To better understand the impact of endometriosis on patients’ lives and to identify areas where additional support may be provided to patients with this condition.
**Methods**

**Recruitment**
- Patients were identified from PIMS computerised database of surgeries via IT department.
- Patients who had surgery between 2008 and 2014 were included.
- All patients who received surgical intervention in CUMH for the treatment of endometriosis were contacted as part of this study \(N=77\).
- Average age of participants – 34 years
- Time to follow up (months) – Max (63), Min (11), Median (42)
Design

- Retrospective postal questionnaire
- Patients asked to recall and report their preoperative levels of pain and Quality Of Life (QOL), and also to report their current levels of pain and QOL.
- QOL assessment: EQ-5D-3L validated assessment tool.
- Non-responders sent a reminder 6 months after initial survey

Response Rate

- 32 patients, representing a response rate of 42%
### RESULTS - PAIN

“I would be in pain 3 weeks out of every month” Patient no. 1

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Pain before surgery (IQR)</th>
<th>Pain after surgery</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain between periods</td>
<td>5 (3.25-7)</td>
<td>1.5 (0.75-4)</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Pain before periods</td>
<td>6.4 (4.25-8)</td>
<td>1 (0-5)</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Dysmenorrhea</td>
<td>8.75 (7.25-10)</td>
<td>4 (0-7)</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Dyspareunia</td>
<td>6 (0-9.75)</td>
<td>1.5 (0-5)</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Pain after periods</td>
<td>3.5 (0-7)</td>
<td>0 (0)</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Pain on defecation</td>
<td>5 (0.25-9)</td>
<td>2 (0-5.5)</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Dysuria</td>
<td>0 (0-4)</td>
<td>0 (0-2)</td>
<td>0.123</td>
</tr>
</tbody>
</table>
Results – Associated symptoms

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Presence before n</th>
<th>Presence after n</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constipation</td>
<td>20</td>
<td>12</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>16</td>
<td>9</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Bloating</td>
<td>25</td>
<td>17</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Nausea</td>
<td>18</td>
<td>11</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Vomiting</td>
<td>11</td>
<td>4</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Heartburn</td>
<td>6</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Headaches</td>
<td>17</td>
<td>14</td>
<td>0.63</td>
</tr>
<tr>
<td>Haematuria</td>
<td>5</td>
<td>1</td>
<td>0.25</td>
</tr>
<tr>
<td>Blood in bowel motion</td>
<td>8</td>
<td>5</td>
<td>0.375</td>
</tr>
</tbody>
</table>
ASSOCIATED SYMPTOMS

• Surgical intervention had a strong impact on non-gynaecological associated symptoms
• Encouraging as these symptoms form a large part of the burden of illness in endometriosis.
• Number of symptoms in this study upon which surgical intervention had no impact, namely heartburn, headaches, haematuria and dyschezia, a finding for which there is precedent in the international literature.
• Evidence such as this is encouraging and helps to define an emerging profile of endometriosis related symptoms that are likely to respond to surgical intervention.
Figure 3. Impact of endometriosis on mood as described by patients

"I felt lonely, anxious and depressed" Patient no. 7

- Lonely: 1
- Anxious: 1
- Mood Swings: 4
- Angry: 4
- Drained: 5
- Emotional: 5
- Short Tempered: 6
- Irritable: 8
- Depressed: 9

Numbers of patients using each descriptive term
“It affected my marriage and my work; missed a lot of work because of it and couldn’t have children” Patient no. 15
SELF-REPORTED LEVELS OF OVERALL HEALTH BEFORE AND AFTER SURGERY
### Results – Quality of life

“*It completely changed me. I’m more confident now. I’ve lost weight. Have no pain anymore. I’m 99% better.*” Patient no. 20

<table>
<thead>
<tr>
<th>EQ5D dimension</th>
<th>Before: Median (IQR)</th>
<th>After: Median (IQR)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility</td>
<td>2 (1)</td>
<td>1 (0.5)</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Self Care</td>
<td>1 (0)</td>
<td>1 (0)</td>
<td>0.083</td>
</tr>
<tr>
<td>Usual Activities</td>
<td>2 (0)</td>
<td>1 (1)</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Pain/Discomfort</td>
<td>3 (1)</td>
<td>2 (0.75)</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Anxiety / Depression</td>
<td>2 (1)</td>
<td>1 (1)</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>
LIMITATIONS

- Small sample size (n=32)
- Variable interval between surgery and survey participation between patients
- Recall bias
- Selection bias
- Presence/absence of comorbid conditions not taken into account in analysis.

“In the 2 years after surgery I would have seen a big difference, 75% improvement. But in the last 18 months the endometriosis has worsened again”
Patient no. 23
MOVING FORWARD

- Structures have been put in place to build a database that will allow for prospective study of this population in the future.
- Further work to look at the impact of medical treatments in our population
CONCLUSIONS

- Surgical intervention is an effective means of reducing pain and improving quality of life in a majority of women.
- The outcomes of treatments offered in CUMH are in line with those reported in the international literature.
- Psychological distress in the form of anxiety/depression is a major contributor to burden of illness in endometriosis.
- The burden of illness in endometriosis extends beyond the patient and has impact on a societal and economic level, which has yet to be quantified in the Irish context.
WITH SPECIAL THANKS TO

- All the patients who took part in this study, without whom this research could not have been conducted.
- Ronan Bluett, Medical Student, University College Cork
- Dr. Cathy Burke, Consultant Obstetrician and Gynaecologist CUMH
- Mr Jamie Madden Department of Epidemiology and Public Health, University College Cork
- Department of Obstetrics and Gynaecology, Cork University Maternity Hospital