ENDOMETRIOSIS!

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INTRODUCTION

• Endometriosis is defined as the presence of endometrial tissue (glands and stroma) outside the uterus.

• Endometriosis varies in appearance from a few minimal lesions on otherwise intact pelvic organs, to massive ovarian endometriotic cysts that distort tubo-ovarian anatomy and extensive adhesions involving bowel, bladder, and ureter.
Frequency of endometriosis vary widely, but the prevalence is assumed to be around 10% and is associated with pelvic pain and infertility.
> ENDOMETRIOSIS: MY LIFE WITH YOU. <<
WHAT OUR STUDY SAYS?

STUDY DURATION – January 2012 to December 2012

CONDUCTED AT- Multiple tertiary hospitals of North India

INCIDENCE- 25%

AGE AFFECTED- 25 -29 years

YEARLY INCIDENCE- 21-42 / 100 person year

MOST COMMON PRESENTATION –
1. Infertility (87.3%)
2. Chronic pelvic pain (56.4%)
3. Dysmenorrhea (34.5%)

MOST COMMON ORGAN AFFECTED- Ovary (89.1%)

MOST COMMON PROCEDURE DONE- CYSTECTOMY (30%)
COMMON SITES
# Classification - ASRM

**REVISED AMERICAN SOCIETY FOR REPRODUCTIVE MEDICINE CLASSIFICATION OF ENDOMETRIOSIS 1985**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Score</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (Minimal)</td>
<td>1-5</td>
<td>Laparoscopy, Laparotomy, Photography</td>
</tr>
<tr>
<td>II (Mild)</td>
<td>6-15</td>
<td>Recommended Treatment</td>
</tr>
<tr>
<td>III (Moderate)</td>
<td>16-40</td>
<td></td>
</tr>
<tr>
<td>IV (Severe)</td>
<td>&gt;40</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>Prognosis</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Endometriosis</th>
<th>&lt; 1 cm</th>
<th>1 - 3 cm</th>
<th>&gt; 3 cm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preclusion</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Superficial</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Deep</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td><strong>Ovary</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R Superficial</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Deep</td>
<td>4</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>L Superficial</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Deep</td>
<td>4</td>
<td>16</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Posterior Culdesac Obliteration</th>
<th>Partial</th>
<th>Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>40</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Adhesions</th>
<th>&lt; 1/3 Enclosure</th>
<th>1/3-2/3 Enclosure</th>
<th>&gt; 2/3 Enclosure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ovary</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R Filmy</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Dense</td>
<td>4</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>L Filmy</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Dense</td>
<td>4</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td><strong>Tube</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R Filmy</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Dense</td>
<td>4</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>L Filmy</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Dense</td>
<td>4*</td>
<td>8*</td>
<td>16</td>
</tr>
</tbody>
</table>

*If the fimbriated end of the fallopian tube is completely enclosed, change the point assignment to 16.

Additional Endometriosis: ___________________________  Associated Pathology: ___________________________
Examples of scoring (ASRM)
DIFFERENT TYPES OF LESIONS

Black and white lesions of the pelvic peritoneum with dense fibrosis

Red lesion on the uterosacral ligament
DIFFERENT TYPES OF LESIONS

Vesicular lesions

Match stick lesions on ovary
DIFFERENT TYPES OF LESIONS

Ovarian endomertioma

Peritoneal defects
ISSUES:

• Is Endometriosis Best Treated Surgically, Medically or Both
• Removal of Ovaries at Hysterectomy
• Adjuvant Treatment Postoperatively
Treatment : Consideration

- Age
- Symptoms
- Stage
- Infertility
Treatment: Overall Approach

- Individualize the patient
- Recognize Goals:
  - Pain Management
  - Preservation / Restoration of Fertility
- Patient counseling:
  - Disease may be Chronic, recurrent and not curable
  - Optimal Treatment- Surgery
Pain Management: Medical Therapy

- NSAIDs
- OCPs (Continuous)
- Progestins
- Danazol
- GnRH-a
- Aromatase Inhibitors
- Misc: Opioids, SSRIs
Okay! Today I will get shit done!

CRAMP

UNBELIEVABLE

PAIN...

WHAM

WHAM

WHAM

Not.
Pain abdomen has many causes and definitive diagnosis can only be made by surgery.
PRE OPERATIVE EVALUATION

TVS to be used to diagnose ovarian endometrioma which shows following characteristics: ground glass echogenicity and one to four compartments and no papillary structures with detectable blood flow


Usefulness of magnetic resonance imaging (MRI) to diagnose peritoneal endometriosis is not well established


Assess ureter, bladder and bowel involvement by additional imaging if there is a suspicion based on history or physical examination of deep endometriosis, in preparation for further management.
PELVIC ORIENTATION
ABOUT URETER

PELVIC COURSE OF URETER

- The ureter passes downwards and slightly medially on psoas muscle.
- Enters the pelvis by crossing anteriorly to the iliac vessels, which occurs at the bifurcation of the common iliac artery.
- Ureter runs posterior to the ovary and then deep to the broad ligament and through the cardinal ligament.
- Uterine artery crosses it anteriorly in the rectouterine fold of peritoneum.
ENDOMETRIOSIS AND CARCINOMA

• Malignant transformation of endometriosis occurs in 0.7-5%.
• The most common malignancies arising in endometriosis is endometrioid adenocarcinoma and clear cell adenocarcinoma.
• It is speculated that epithelium of endometriotic cysts undergoes initiation, giving rise to dysplastic or intraepithelial neoplastic epithelium.
Surgical Treatment

- Aspiration and drainage
- Coagulation
- Excision / Fulguration
- Resection of Endometrioma
- Lysis of Adhesions, Cul-de-sac Reconstruction
- Hysterectomy +/- BSO
Is Surgery effective for pain associated with endometriosis?

- To surgically treat endometriosis is effective in reducing endometriosis-associated pain.


- Both ablation and excision of peritoneal endometriosis to reduce endometriosis-associated pain. However excision of lesions is preferential with regard to the possibility of retrieving samples for histology.

• For ovarian endometrioma, cystectomy should be performed instead of drainage and coagulation, as it reduces endometriosis-associated pain.


• Surgical removal of deep endometriosis is recommended, as it reduces endometriosis-associated pain and improves quality of life


• Women with suspected or diagnosed deep endometriosis should be referred to a centre of expertise that offers all available treatments in a multidisciplinary context
Surgery and endometriosis-associated infertility

• Suppression of ovarian function (by means of hormonal contraceptives, progestagens, GnRH analogues or danazol) to improve fertility in minimal to mild endometriosis is not effective.


• In infertile women with AFS/ASRM Stage I/II endometriosis, operative laparoscopy (excision or ablation of the endometriosis lesions) including adhesiolysis, than performing diagnostic laparoscopy only, to increase ongoing pregnancy rates.

• In infertile women with ovarian endometrioma, excision of the endometrioma capsule, instead of drainage and electrocoagulation of the endometrioma wall, to increase spontaneous pregnancy rates. However counsel patient regarding the risks of reduced ovarian function after surgery and the possible loss of the ovary.


• In infertile women with AFS/ASRM Stage III/IV endometriosis, operative laparoscopy to be considered, instead of expectant management, to increase spontaneous pregnancy rates
• Crude spontaneous pregnancy rates of 57– 69% (moderate endometriosis) and 52– 68% (severe endometriosis) after laparoscopic surgery, which are much higher than the crude pregnancy rates of 33% (moderate) and 0% (severe) after expectant management.

CASE 1

Patient X, 34 years P0L0 female came with primary infertility, dysmenorrhea since 2 years

On examination:
GPE: normal
Per abdomen: soft, no mass palpable, non tense, non tender
Per vaginal: Uterus anteverted, normal size, mobility restricted, left fornix mass fullness present
USG: 1.6 * 2.2 cm left ovarian endometriotic cyst with

Diagnosis: P0L0, primary infertility left endometriotic cyst

Procedure done: Diagnostic and operative laparoscopy with left endometriotic ovarian cystectomy, with adhesiolysis, fulguration of endometriotic implants with CPT
CASE 2

Patient X, 26 years P0L0 female came with primary infertility since 2 years.
On examination:
GPE: normal
Per abdomen: soft, no mass palpable, non tense, non tender
Per vaginal: Uterus anteverted, normal size, mobility restricted, left fornix mass fullness present
USG: 3.7 *5.2 cm thin walled left ovarian cyst with low level internal echos
Diagnosis: P0L0, primary infertility, bilateral endometriotic cyst
Procedure done: Diagnostic and operative laparoscopy with bilateral endometriotic ovarian cystectomy, with adhesiolysis
CASE 3

Patient X, 41 years, P2L2 previous 2 LSCS female came with c/o pain abdomen since 6 months.

On examination:
GPE: normal
Per abdomen: soft, no mass palpable, non tense, non tender
Per vaginal: Uterus anteverted, normal size, mobility restricted, right fornix mass present 4*5 cm
USG: Right ovarian endometriotic cyst 4.2 * 4.7 cm
Diagnosis: P2L2 previous 2 LSCS with right endometriotic cyst

Procedure done: Diagnostic and operative laparoscopy with right salpingo oophorectomy, with adhesiolysis, fulguration of endometriotic implants.
CASE 4

Patient X, 49 years female P2L2 previous LSCS, prev open cholecystectomy came with c/o menorrhagia, dysmenorrhoea 6 months.

On examination:
GPE: normal
Per abdomen: soft, no mass palpable, non tense, non tender
Per vaginal: Uterus anteverted, size, mobility restricted,
USG: 2*2.3 cm right endometriotic cysts
Diagnosis: P2L2 previous LSCS with adenomyosis, bilateral tubo ovarian mass
Procedure done: Diagnostic and operative laparoscopy, total laparoscopic hystectomy with bilateral salphingo oopherectomy, with adhesiolysis.
TO CONCLUDE....

- Endometriosis is diagnosed by **visual inspection** of the pelvis during laparoscopy, ideally with histological confirmation; positive histology confirms the diagnosis, but negative histology does not exclude it.
- Surgical Excision is the **most Efficacious Approach** with Respect to **Fertility**
- **Ablation** of endometriotic lesions plus **adhesiolysis** in minimal to mild endometriosis is effective in **improving fertility and pain**.
TO CONCLUDE....

Severe or deeply infiltrating endometriosis should be managed in a facility with the necessary expertise to provide treatment in a **multidisciplinary context**, including **advanced laparoscopic surgery**.
Thank you for your attention
Any questions?