LAPAROSCOPIC TOTAL PERITONEAL EXCISION

A SAFE SURGICAL PROCEDURE

FOR THE MANAGEMENT OF ENDOMETRIOSIS


• 14th annual congress of the International Society for Gynaecologic Endoscopy, London, April 3-6 2005

• XVIII FIGO World Congress of Gynaecology and Obstetrics, Kuala Lumpur, Malaysia - 5-11 November 2006.

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“EXCISION OF ENDOMETRIOSIS”

MODERN & ACCEPTED
SURGICAL
MANAGEMENT OF ENDOMETRIOSIS
CONVENTIONAL PRACTICE

EXCISE ENDOMETRIOTIC LESION
AND
LEAVE SO CALLED NORMAL LOOKING PERITONEUM
CONVENTIONAL PRACTICE

PARTIAL EXCISION OF PELVIC PERITONEUM

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Endometriosis mainly a generalised disease of pelvic peritoneum and if one looks carefully so called normal looking peritoneum have an abnormal vasculature.
Endometriotic vascular changes-Neovascularisation Peritoneum

Although there is no obvious endometriosis in these slides; careful inspection of the so-called normal looking peritoneum has abnormal vascular changes due to endometriosis.
Failure of conventional practice

- Incomplete excision/removal
- Disease recurrence/new disease at new site (recurrence rate reported 14-36%)
I suggest complete removal of peritoneum covering:

- Both ovarian fossa
- Uterosacral ligament
- Pouch of Douglas

Thus, excise both abnormal and so-called normal looking peritoneum.
TOTAL PERITONEAL EXCISION
TOTAL PERITONEAL EXCISIION

EXCISION OF PELVIC PERITONEUM BOTH OVARIAN FOSSA, UTERO SACRAL LIGAMENT & POUCH OF DOUGLAS

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TOTAL PERITONEAL EXCISION

EXCISION OF PELVIC PERITONEUM BOTH OVARIAN FOSSA, UTERO SACRAL LIGAMENT & POUCH OF DOUGLAS

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REASON FOR TOTAL EXCISION

To Reduce Chances Of Recurrence

So called normal looking peritoneum between frank clinical lesions has –

• Sub-clinical endometriosis

• Continued susceptibility to metaplastic changes/retro-grade menstruation
REASON FOR TOTAL EXCISION
(CONTINUED)

Better symptomatic relief

• May result in complete destruction of retro-peritoneal nerves
Reduced complications

- Starting dissection from *so called* normal looking peritoneum helps in better delineation of anatomy
OBJECTIVE

DETERMINE SAFETY OF
LAPAROSCOPIC TOTAL PERITONEUM EXCISION
DESIGN:

- Retrospective

- 100 consecutive cases to October 2004

- Total Peritoneal Excision in patient with uterus

- Included - Mild to severe endometriosis (stage I-IV)

- Excluded – Hysterectomy with excision or hysterectomy in the past

- All operation undertaken by one surgeon (Mr A K Trehan)

SETTINGS:

- District General Hospital
<table>
<thead>
<tr>
<th>TOTAL NO. OF PTS</th>
<th>FAILED MEDICAL TREATMENT</th>
<th>NO. OF TIMES MEDICAL TREATMENT TRIED AND FAILED</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>68 = 68%</td>
<td>1 FAILURE 43%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 FAILURE 15%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 FAILURE 8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 FAILURE 2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOTAL 68%</td>
</tr>
</tbody>
</table>
TECHNIQUE
TOTAL PERITONEAL EXCISION

- 3 Port Entry – 10mm sub-umbilical x 1
  - 5mm side ports x 2
- Oozing from raw surface checked at end of operation at 6mm pressure
- Anti-adhesion solution
- Prophylactic antibiotic
DEGREE/STAGE OF ENDOMETRIOSIS

- Mild: 37/100 = 37% (Superficial scarrings)

- Moderate: 42/100 = 42% (Deep scarring & adhesions)

- Severe: 21/100 = 21% (Deep scarring, major adhesions, chocolate cyst & bowel involvement)
Severe Endometriosis with Kissing Ovaries
Severe Endometriosis with Kissing Ovaries following excision

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Extensive Scarring with previous laser surgery
Extensive scarring with previous laser surgery following excision
Opened Vagina following excision

Excision of Recto-Vaginal Endometriosis

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Excision of Recto-Vaginal Endometriosis
Excision of Recto-Vaginal Endometriosis
Extensive dissection for Endometriosis involving Ureter
Extensive dissection for Endometriosis involving Ureter & major blood vessels
<table>
<thead>
<tr>
<th>PATIENT CHARACTERISTIC &amp; ANALYSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MEAN</strong></td>
</tr>
<tr>
<td>Mean age</td>
</tr>
<tr>
<td>Mean weight</td>
</tr>
<tr>
<td>Mean Hb deficit</td>
</tr>
<tr>
<td>Mean theatre occupancy time</td>
</tr>
</tbody>
</table>
Histological Confirmation of Endometriosis

- Histologically confirmed - 84/100 = 84%
- Histologically not confirmed - 16/100 = 16%
## Hospital Stay

Hospital stay relates to the number of post-operative nights in the hospital.

<table>
<thead>
<tr>
<th>Total No. of Patients</th>
<th>Total No. of Nights</th>
<th>Median day stay in Hospital</th>
<th>% of pt had overnight stay</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>110</td>
<td>1 (range 1-2)</td>
<td>90%</td>
</tr>
</tbody>
</table>

- 90% of patients could be discharged home despite of prolonged operation (mean theatre occupancy 189 mins – range 100-375 mins)

- 10% of the patients who stayed an extra night was mainly for:
  - Social reasons
  - Lived far away (Scotland, York and Goole)
COMPLICATIONS

- Blood Transfusion 0/100 0%
- Pyrexia 0/100 0%
- Wound complication 0/100 0%
- Conversion to laparotomy 0/100 0%
MINOR COMPLICATIONS

- Uterine fundal perforation 1/100
  - No ill consequences – no special treatment needed

- Serosal abrasion of large bowel 1/100
  - No ill consequences – Hospital stay one day
  - Usual diet from day of operation

TOTAL - 2/100 = 2%
(No ill consequences, no morbidity, not required any special post operative care or treatment)
**MAJOR COMPLICATIONS**

**INJURY TO INTERNAL ORGANS –**

- Bladder 0/100 0%
- Ureter 0/100 0%
- Bowel 0/100 0%
- Major blood vessels 0/100 0%
READMISSION WITHIN 4 WEEKS OF OPERATION

• For surgical complication 0/100 0%

• Other reason 1/100 1%
  – Anxiety and chest pain – discharged within 12 hours of readmission
RE-OPERATION

RE-OPERATION WITHIN SIX MONTHS OF INITIAL OPERATION:

\[ \frac{0}{100} = 0\% \]
RISK OF PELVIC ADHESIONS FOLLOWING TOTAL PERITONEAL EXCISION

• 10 patients had second look for diagnostic/therapeutic procedure

• No pelvic adhesion detected
  (A single strand of adhesion or very few flimsy adhesions not included)
EXCISION OF PELVIC ENDOMETRIOSIS DOES NOT CAUSE PELVIC ADHESION

BEFORE EXCISION

AFTER EXCISION

SECOND LOOK LAPAROSCOPY

PATIENT NO. 1
EXCISION OF PELVIC ENDOMETRIOSIS DOES NOT CAUSE PELVIC ADHESION

BEFORE

AFTER

SECOND LOOK LAPAROSCOPY

PATIENT NO. 1
EXCISION OF PELVIC ENDOMETRIOSIS DOES NOT CAUSE PELVIC ADHESION
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EXCISION OF PELVIC PERITONEUM BOTH OVARIAN FOSSA, UTERO SACRAL LIGAMENT & POUCH OF DOUGLAS

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EXCISION OF PELVIC ENDOMETRIOSIS DOES NOT CAUSE PELVIC ADHESION

AFTER EXCISION - Patient 2

EXCISION OF PELVIC PERITONEUM BOTH OVARIAN FOSSA, UTERO SACRAL LIGAMENT & POUCH OF DOUGLAS

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Second look laparoscopy – Patient 2
EXCISION OF PELVIC ENDOMETRIOSIS DOES NOT CAUSE PELVIC ADHESION

SECOND LOOK LAPAROSCOPY – Patient 2
EXCISION OF PELVIC ENDOMETRIOSIS DOES NOT CAUSE PELVIC ADHESION

SECOND LOOK LAPAROSCOPY – Patient 2

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EXCISION OF PELVIC ENDOMETRIOSIS DOES NOT CAUSE PELVIC ADHESION

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Patient 3

AFTER EXCISION

SECOND LOOK LAPAROSCOPY
SUMMARY

- **90%** of patients left hospital after overnight stay inspite of prolonged procedure (mean theatre occupancy 189mins – range 100-375mins)

- 2% patients suffered very minor intra-operative complication which did not cause any post operative ill consequences or morbidity nor did patient require any special post operative care or treatment

- No patient suffered any major complication

- No patient was readmitted for surgical complication

- No adhesions detected at second look. New peritoneum at the excised area gave normal appearance.
CONCLUSION

• Total peritoneal excision using bipolar coagulator and scissors is a safe surgical procedure in an experienced hand.

• Overnight Hospital Stay following prolonged procedure to excise endometriosis is a safe practice
ACKNOWLEDGEMENT

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- Dr S Sunder – MBBS. MD - SHO
- Mrs C Rooke – Audit Supervisor
- Miss Z Kitcher - Secretary

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THANK YOU

For more information, please visit http://endometriosis-consultant.co.uk/