Managing Endometriosis: Can We Refine The Balance Of Care?

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- Abnormal findings at Laparoscopy 60%
  - Endometriosis 28%
  - Adhesions 25%
- Higher stage endometriosis 18 - 30%
- Negative Laparoscopy 40%

Chapron et al, Reid et al, Khong et al, Howard et al

Endometriosis in $

- Annual $ costs : USD 12,419
  - Direct costs 1/3
  - Indirect costs 2/3
- Lost productivity: 10.8 hrs / week
- Economic burden
  - Diabetes
  - Crohn's disease
  - Rheumatoid arthritis
- Negative Laparoscopy: £180 million/annum

Endometriosis:

- Multimodal disease
- Phenotypes
  - Peritoneal, endometrioma, bowel & non bowel disease, adenomyosis
  - Markers of local invasiveness
- Delays in diagnosis – upto 8 years
- First surgery – Maximal benefit

Endometriosis: New Concepts

- New medical treatment – Visanne
- Referral Centres for higher stage disease
- New diagnostic tools
  - Serum markers (alpha-1-antitrypsin (A1AT) for peritoneal disease)
  - Endometrial tissues (PGP9.5: marker for unmyelinated nerve endings)
- Imaging tools
  - TVS
  - MRI
  - MVC
  - Combinations

Hum Reprod 2012; 27(5) 1292 -1299
Endometriosis:
Medical treatment
- Combined COCP
  - Routine use
  - 3-4 monthly withdrawal bleeding.
- Mirena IUS, Depo Provera, Implanon
- Visanne – dienogest 2mg daily

Endometriosis and TVS
- First line imaging tool
- Cost effective, Resource friendly
- Diagnostic performance for different phenotypes of endometriosis
- Different techniques described e.g. “stand off technique”

Menakaya et al  JUM 2015

Endometriosis and TVS

Five Domain Sonographic Approach

<table>
<thead>
<tr>
<th>Domain</th>
<th>TVS Technique</th>
<th>Endometriosis Phenotype</th>
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</thead>
<tbody>
<tr>
<td>4</td>
<td>Office Gel Sonovaginography</td>
<td>Non bowel anterior and posterior compartment</td>
</tr>
<tr>
<td>5</td>
<td>Assessment of anterior wall of large bowel</td>
<td>Bowel DIE</td>
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</table>

“The Endometriosis Scan”

Endometriosis Scan

Adenomyosis
Evaluating The Pouch Of Douglas

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<tr>
<td>3</td>
<td>Real time dynamic “sliding sign”</td>
<td>POD obliteration</td>
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Is it important?

- POD obliteration - Marker of severe endometriosis.
- POD obliteration – Distortion of pelvic anatomy.
- POD obliteration - 3 fold higher risk of bowel DIE.
- Bowel DIE – Complex surgery, multidisciplinary team.


Sliding sign videos

- Negative ‘sliding sign’
  - Retro cervical
  - Fundal

Sliding sign videos

- Positive ‘sliding sign’
  - Retro cervical
  - Fundal
Experience is important.

Interpreting The Real-time Dynamic ‘Sliding Sign’ And Predicting POD Obliteration By Observers With Varying Experience And Training:

Inter and Intra-observer, Diagnostic Accuracy & Learning Curve Study.

Menakaya et al, 2015

Methodology (1)

- 6 observers
- Varying gynecological ultrasound experience
- 32 video sets x 2
- One week apart

<table>
<thead>
<tr>
<th>Observer</th>
<th>Prior Gynaec Scan Experience</th>
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<tbody>
<tr>
<td>Observer 1</td>
<td>0</td>
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<tr>
<td>Observer 2</td>
<td>50</td>
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<tr>
<td>Observer 3</td>
<td>50</td>
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<tr>
<td>Observer 4</td>
<td>200</td>
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<tr>
<td>Observer 5</td>
<td>750</td>
</tr>
<tr>
<td>Observer 6</td>
<td>15000</td>
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</tbody>
</table>

Menakaya et al, 2015

Learning Curves for ‘Sliding Sign’

Conclusion:
A Minimum Number Of Gynaecological Ultrasound Experiences Relevant For Interpreting The ‘Sliding Sign’.

Fundal Region Retro Cervical Region
Domain Approach As Evaluation Tool

- Practical, simple and comprehensive preoperative evaluation protocol for endometriosis.
- Road map to appropriate triage system
- Objective stratification of competency
- Builds on existing imaging technique

Five – Domain Approach

- Evaluation tool
- Triage tool
- Training tool
- Two step approach to evaluating Endometrioma

INTEGRATING THE CONCEPT OF ADVANCED GYNECOLOGICAL IMAGING FOR ENDOMETRIOSIS

Menakaya et al 2015

Editorial

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In Press

Can We Refine The Balance Of Care?

- Chronic pelvic pain – Routine pelvic scan – Domain I
- Trial of medication – usually open ended
- Referral to public hospital/private Gynaecologist
- Waitlisted for consultation and surgery

Balance Of Care? Tertiary Level Of Care
Chronic pelvic pain – Endometriosis specific scan

Higher stage disease – Patient education and empowerment, appropriate early referral.

No higher stage disease – ‘Time framed’ trial of medical treatment, surgery if required

Endometriosis: Balance of Care

For General practitioners
- Engender appropriate referral
- Appreciate severity of disease
- Improve Patient education

For Patient
- Empowerment
- Awareness of Disease Severity
- Early decision making about fertility issues.

Balance Of Care? Primary Level Of Care