Lessons from a Post-Partum Perineal Clinic

Dee E. Fenner, M.D.
Chair and Furlong Professor
Dept. of Obstetrics and Gynecology
University of Michigan
Ann Arbor, MI
University of Michigan Pelvic Floor Research Group
“Improving prevention and treatment of women’s pelvic floor disorders”
Disclosures

• No financial disclosures
Objectives

- Review our experiences with the Michigan Healthy Healing After Delivery Model
- Recommendations based on evidence and observations
Developing Evidence Based Practices

To Promote Optimal Outcomes for Mothers and Babies
Vaginal Birth and Pelvic Floor Symptoms

~ 1 in 10 women have pelvic floor symptom(s) in first 6 months postpartum

- Urinary incontinence
- Dyspareunia
- Prolapse
- Anal incontinence (flatus, stool)
- Persistent Pain
What can we do to optimize recovery?

- Diagnosis
- Treatment
- Rehab
- Prevention
One stop shopping for:

- Non-Healing Laceration
- Bowel incontinence
- Urinary Incontinence
- Painful Laceration
- 3rd or 4th Degree Lacerations
- Obstetric Fistulas
- Postpartum Urinary Retention
- Sexual Function

Also early screening for:
- Postpartum depression
- Lactation concerns
Michigan Healthy Healing
After Delivery

• Patients seen within 2 weeks of calling/delivery
• Up to one year after delivery
• Nursing centered care
  – f/U phone calls
• Education focused
Patient quotes

• “I just want my body back. Will I ever get my body back? No one ever talks about this part of being a new mom.”

• “All I know is that everyone was looking at my bottom and shaking their heads, I knew it was something bad.”
MHHAD Patients

Patient Visits

<table>
<thead>
<tr>
<th>Year</th>
<th>New Pts</th>
<th>Pts w/ RV</th>
<th>Total # of Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year One</td>
<td>40</td>
<td>18</td>
<td>79</td>
</tr>
<tr>
<td>Year Two</td>
<td>55</td>
<td>24</td>
<td>97</td>
</tr>
<tr>
<td>Year Three</td>
<td>64</td>
<td>29</td>
<td>115</td>
</tr>
<tr>
<td>Year Four</td>
<td>88</td>
<td>32</td>
<td>145</td>
</tr>
</tbody>
</table>

2018 Fiscal Year ~ 300 New pts. and 450 total visits
Reasons for Referral

March 2012 - June 2016

- 50% with more than one indication
- 62% with 3rd/4th degree perineal tear

- Pain
- Perineal Laceration
- Urinary Incontinence
- Fecal Incontinence
- Other/Not specified
## Interventions

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean number of visits/patient</td>
<td>2 ± 1.5</td>
</tr>
<tr>
<td>1 visit</td>
<td>55%</td>
</tr>
<tr>
<td>2-3 visits</td>
<td>32.5%</td>
</tr>
<tr>
<td>&gt;3 visits</td>
<td>12.5%</td>
</tr>
<tr>
<td>Surgical Interventions</td>
<td>17.5%</td>
</tr>
<tr>
<td>Revision of Perineal Lac Repair</td>
<td>29%</td>
</tr>
<tr>
<td>Recto-Vaginal Fistula Repair</td>
<td>43%</td>
</tr>
<tr>
<td>TVT</td>
<td>28%</td>
</tr>
</tbody>
</table>

Data from first 4 years
Obstetric Anal Sphincter Injuries (OASIS)

- Prevalence of recognized injuries: 0.6% - 20%
- “Occult tears”: 1 - 20%
- Risk factors
  - Operative vaginal delivery
  - Midline episiotomy
  - Birth weight > 4000 grams
  - Prolonged second stage > 2 hours
  - Increased maternal age >30 years

## Third/Fourth Degree Perineal Tears

March 2012- June 2016

<table>
<thead>
<tr>
<th>Symptom at 2 weeks Postpartum</th>
<th>N=235</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain requiring medications</td>
<td>68%</td>
</tr>
<tr>
<td>Urinary Incontinence</td>
<td>17%</td>
</tr>
<tr>
<td>Flatal Incontinence, Daily</td>
<td>43%</td>
</tr>
<tr>
<td>Fecal Incontinence</td>
<td>6%</td>
</tr>
<tr>
<td>Postpartum Depression (EPDS ≥ 10)</td>
<td>15%</td>
</tr>
</tbody>
</table>
## Repair of 3rd and 4th Degree OASIS

### ACOG
- NO practice bulletin
- Episiotomy: Procedure and Repair Techniques
- Rectal mucosa: 4/0 chromic or vicryl-running or locked, through submucosa, not mucosa
- IAS: no comment, references to rectal fascia
- EAS: 2/0 suture
- Vaginal tissue: 3/0 or 2/0
- Skin: 4/0

### RCOG
- EAS: PDS or Vicryl can be used with equivalent outcome (LEVEL Ia and Ib)
- IAS: 3/0 PDS 2/0 Vicryl (LEVEL IV)
- Use abx (BEST PRACTICE)
- Use laxatives (LEVEL IV)
- If available, follow up of women with OASIS should be in a dedicated perineal clinic with access to endoanal u/s and anal manometry, as this can aid decision on future delivery (LEVEL IV)
MI Standardized Technique of Repair

- Good lights, appropriate equipment, aseptic conditions (Ib)
  - consider self retaining retractor, e.g. Weislander
- Good anesthesia
  - Allows EAS to relax for better access
- Evaluate and grade injury
- Repair
- Document like any other surgery
- Antibiotics
  - One time dose Cefoxitan

- Anal Epithelium: 3/0 vicryl
- Sphincter muscles:
  - IAS: end to end with 3/0 PDS
  - EAS end to end with 3/0 PDS
    - If partially torn, consider end to end with mattress sutures
- Perineal muscles with 2/0 vicryl or 3/0 PDS
- Vaginal mucosa and perineal skin 3/0 vicryl or NO Sutures
  - BOWEL REGIMEN !!!
SUTURE CHOICE

• WHY PDS?
  – 50% tensile strength at 3 months
  – Monofilament-less infection risk

• WHY VICRYL?
  – 50% tensile strength at 3 weeks
  – Vicryl Rapide with fewer side effects of retained suture at postpartum visit-appropriate for mucosa if needed

• WHY NOT CHROMIC?
  – Painful, Particularly in first three days post-partum.
  – Proteolytic dissolving, increased infection risk
  – Greater wound dehiscence
NO Suture on Vagina or Perineum

- First or Second degree laceration
  - Vicryl Repair
  - Glue
  - No suture

- Significantly less pain at 2 weeks with NO SUTURE

Unpublished data: Swenson CW
• Single dose cephalosporin

• Randomised
  – 83 placebo
  – 64 antibiotics

• 2 week follow-up (73%)

• Wound complication
  – 8% antibiotic group
  – 24% placebo group
Factors associated with complications


- 909 of 1692 3rd and 4th degree F/U
- 7.3% complication rate
  - Smoking 4.40 OR
  - Increased BMI 1.09
  - Fourth degree 1.89
  - Operative delivery 1.76
  - PP antibiotics 2.46
  - IP antibiotics .29
Common Counseling ??

- What should I do for my next delivery?
- Should I have a C/S?
For Next Delivery???!!!
After Previous 3rd or 4th OASIS

- Future risk of another third or fourth degree tear
  - 4.4% - 12% recurrence (Peleg 199, Hankin, 2003)

- Impact of second delivery on NEW FI
  - Third degree tears = 2.5%
  - Fourth degree tears = 26.5% (Sangalli, 2000)
  - Predictors:
    - Squeeze pressures < 20 mm Hg
    - Defect > 1 quadrant
    - 75% rate of FI v 5% (Fynes M et al 1999)
MI Clinical algorithm

If no fecal Incontinence – **RECOMMEND VAG DEL**
- Next vaginal delivery: no Fl

If transient fecal Incontinence - **TESTING**
- 17-24% with permanent Fl
- 39% with temporary Fl

If permanent fecal Incontinence – **CESAREAN SECTION**
- further deterioration of function
Should I have a C/S?

• Fatality
  – C/S have 6x higher fatality rate than vaginal birth
  – Elective C/S has 3x higher fatality rate
• Pelvic pain
  – 116 scopes for pelvic pain, 67% with previous c/s compared to c/s rate of 39% in asymptomatic controls
• Stillbirth
  – Scottish Morbidity Record (20 years), stillbirth rate doubled if first delivery was by c/s (1 per 1000)
• Maternal Morbidity
  – Increased previa, hemorrhage, endometritis, wound infection, etc.
Urinary Incontinence

- 22-34% of women 6 months pp
  - Associated with antenatal UI
  - No college education
  - Higher pre-delivery BMI
  - Instrumented delivery
  - Large baby

CAPS STUDY
921 primiparas
Urinary Incontinence

• Prevalence of stress incontinence after vaginal birth vs. C/S
  – Stress Incontinence: 38% versus 3%
  – Urge incontinence: 12% versus 12%

• Great evidence for intensive supervised PF muscle training

Post-partum UI

• Evaluation and management
  – R/o acute cystitis, retention…
  – Incontinence ring pessary, tampon
  – Treat her constipation
  – Pelvic floor muscle training
  – Consider surgery no sooner than 9-12mo
Incontinence patients

<table>
<thead>
<tr>
<th>Incontinence</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SUI</td>
<td>75%</td>
</tr>
<tr>
<td>Treated with TVT</td>
<td>33%</td>
</tr>
<tr>
<td>Treated w/ Incontinence Pessary</td>
<td>50%</td>
</tr>
<tr>
<td>Treated w/ VE</td>
<td>66%</td>
</tr>
<tr>
<td>Urge and Mixed Incontinence</td>
<td>25%</td>
</tr>
<tr>
<td>Treated with PFE</td>
<td>100%</td>
</tr>
</tbody>
</table>

Average visits 1.88
Primiparous women with UI/Fl:

• At 12 months postpartum, PFMT associated with:
  - 40% reduction in UI
    (RR 0.60, 95% CI 0.35-1.03)
  - 50% reduction in Fl
    (RR 0.52, 95% CI 0.31-0.87)

Hay-Smith J, Cochrane Database System Rev 2008
Will I stop leaking urine?

- 75% chance at one year continence will resolve
  - Higher risk of persistent UI with
    - Increasing number of births
    - Advanced maternal age
    - Higher BMI
    - Family history of UI
    - Leakage during pregnancy

Glazener 2006, MacArthur 2006, Jelosevek 2017
Retrospective chart review of 294 women

Overall, 15.6% (46/294) PPD

- Non-Caucasian (adjusted OR, 2.72; 95% CI, 1.27-5.83; P = .01)
- H/O depression and/or anxiety (adjusted OR, 2.77; 95% CI, 1.23-6.24; P = .01)
- Referred for pain (adjusted OR, 2.61; 95% CI, 1.24-5.49; P = .01)
- Reporting urinary incontinence during and after pregnancy (adjusted OR, 3.81; 95% CI 1.57-9.25; P = .003).
Pain
Pain Patients

- Average visits 1.6
- Therapies
  - Steroid Injection
  - Nitro Paste
  - Bowel Regimen
  - Removal of Granulation Tissue
  - Vaginal estrogen
  - PT

<table>
<thead>
<tr>
<th>PAIN</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Second Degree</td>
<td>40%</td>
</tr>
<tr>
<td>Third Degree</td>
<td>40%</td>
</tr>
<tr>
<td>Unknown laceration</td>
<td>20%</td>
</tr>
<tr>
<td>Urinary Symptoms</td>
<td>100%</td>
</tr>
</tbody>
</table>
Perineal Pain

- “NORMAL”
  - 42% of women 10 days pp
  - 10% of women 18 months pp
- Larger the tear, longer the pain
- Less pain with spontaneous tears than episiotomies at 10 days and 6 months postpartum
- At 12 weeks post partum, pain more common with women who breast fed
- Most pain resolves within 8 weeks postpartum

Sexual Function

- Short term dyspareunia and other sexual complaints
  - Decreased libido, difficulty with orgasm, dryness

- Six months from delivery
  - One in Five women report dyspareunia
  - One in Nine have not resumed sexual activity

- Up to 90% of women resume intercourse within the first 3 months of delivery
  - During this period two of three mothers experience at least one problem related to sexual function

Peristent Perineal Pain

- 32 y/o G1P1 s/p NSVD 11 months ago with compound presentation

- Sustained 3rd degree laceration and bilateral sulcus tears

Fistula in ano
Fistula in Ano
MHHAD: Lessons Learned

• Standardized OASIS repairs
• Less suture is better!
• Maternal birth certificate
• See 3\textsuperscript{rd} and 4\textsuperscript{th} degree lacerations in 2 wks.
• Hand-outs
  – Bowel program
  – Sitz baths
  – Expectations
• Depression screening
• Nursing follow-up