A Second Look at PPTL – Opportunities for Expanding Choice in PPFP

Panel 2: Effective Service Delivery Strategies

Blami Dao/Ricky Lu

PPFP: Building a Global Movement
Wednesday, 14 September 2011
Hotel Monaco, Washington, DC
**FEMALE STERILIZATION METHODS**

**INTERVAL**
- Minilaparotomy
- Laparoscopy
- Transvaginal
- Transcervical
  - Hysteroscopy
  - Chemical sclerosis

**POSTPARTUM**
- Laparotomy if abdominal delivery (C-section or repair for uterine rupture)

*Minilaparotomy after vaginal delivery*
WHY PPTL? - ADVANTAGES AND EFFECTIVENESS

- Convenience – woman and family at the facility
- Technically easier - minilap easier to perform in PP period vs. interval
  1. Abdominal wall is thinner
  2. Enlarged uterus pushes back omentum
  3. Fallopian tubes are located more anteriorly and easier to identify versus the round ligament
  4. Uterine elevator not needed (minimize discomfort and resistance associated with pelvic examination)
- Highly effective – 99.3% effective (US CREST Study)
- PP partial tubal excision
  - 98.5% effective for all TL methods
PP TUBAL LIGATION: POMEROY TECHNIQUE

- Counseling and Informed Consent
- Infection Prevention Steps
- Local anesthesia—1% Lidocaine ± light sedation
- 2 cm sub-umbilical abdominal entry (minilap)
- Locate and verify tube
- Tube tied with suture and excised (Pomeroy)
- Check for bleeding and repeat
- Close abdominal opening
SAFETY, EFFECTIVENESS, COMPLICATIONS

- Safety and effectiveness – affected by: (Chi et al. 1995)
  1. Client selection – use WHO MEC
  2. Timing of operation – 1st 48 hours ideally; and up to 1st 7 days
  3. Surgical approach – Minilaparotomy
  4. Tubal occlusion Method – Pomeroy technique
  5. Anesthesia – local anesthesia ± light sedation

- Complications – low risk and associated with use of general anesthesia. Other risks include bleeding and infection.
### MEDICAL ELIGIBILITY CRITERIA

**WHO, 2009**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accept</strong></td>
<td>No medical reason to deny sterilization</td>
</tr>
<tr>
<td><strong>Caution</strong></td>
<td>Procedure conducted in routine setting with extra preparation and precautions</td>
</tr>
<tr>
<td><strong>Delay</strong></td>
<td>Delay procedure until condition is evaluated/corrected. Alternative temporary method provided</td>
</tr>
<tr>
<td><strong>Special</strong></td>
<td>Procedure undertaken with experienced staff, and back up medical support…</td>
</tr>
</tbody>
</table>

- **Category A**
  - Parity, < 7 days PP
  - Mild Preeclampsia

- **Category D**
  - 7 - < 42 days PP
  - Severe pre-eclampsia/eclampsia
  - PROM > 24 hours
  - Puerperal sepsis, fever during and after delivery
  - Severe ante/post partum bleeding
  - Severe genital tract trauma at delivery

- **Category S** – Uterine rupture/Perforation
PPTL METHOD CONCERNS

- Effect on breastfeeding – generally no adverse effect
- Menstrual changes – no effect
- Post sterilization regret (Chi, 1994; CREST Study, 1996; Cullins, 2011)
  - Studies report occurrence of regret in 0.9 – 26% sterilized women
  - Strongest predictor of regret is age of ≤ 30 years old at time of TL (note that 3 out of 4 do not regret having TL)
  - Other relevant factors include unforeseen life events, pressure from partner or provider or those whose with medical indications
  - Parity not a factor
  - Provider factor – inadequate counseling, financial reward
US TRENDS

- TL – one of the most frequently performed procedure in the US
- 640,000 women annually and about 50% are done in PP
- Overall numbers declining despite 4% population growth – attributed to decline in interval TL
- PP TL follows 8-9% of all live births in the US
Contraceptive Use in 3 Developing Regions

LAC
- TL 31%
- Not Using 28%

Asia (except China)
- TL 20%
- Not Using 44%

SSA
- Not Using 77%
- TL 2%

% Married Women, ages 15 – 49
PRB, 2008

- TL one of most common FP methods globally used by 1:5 married women (PRB, 2008)
- PP TL is more common in LAC compared to South Asia, North and Sub-Saharan Africa (EngenderHealth, 2002)
PROGRAMMING: WHY CONSIDER PP TL?

- Reach women who may not have access to TL services
- Address unmet need for FP
- Technically practical and safe
  - Simple procedure with minimum risks and complications
  - Easier to perform
  - Potentially easier to learn
- Cost effective – existing health infrastructure and staff
- Linkage with ANC provides opportunity for counseling, pre-op screening and informed decision making process
CHALLENGES

- Potential for Regret
- Pregnancy related anatomic and physiologic changes potentially increases risk of injury and bleeding
  - Effective training and supervision emphasizing good tissue handling can minimize or eliminate this complication
- Difficult to integrate FP and Maternity services
  - Reorganization of service delivery model is key and needs to be a programming component
- Lack of trained provider ready to provide service
  - Expand task shifting/sharing utilizing teams of trained nurse providers or midwives or clinical officers to provide the TL
PPTL TASK SHIFTING

Thailand – Pilot Study
- Need for wider coverage particularly rural areas
  - Lack physicians
- RCT using Paramedicals for PPTL in Khon Kaen
  1. 5 Nurse-midwives with OT background vs. Physicians
  2. 12 weeks theoretical and hands on training
  3. Completed PPTL in 143 women
- Results:
  - Slightly longer procedure with NM
  - Similar Post-operative morbidity
  - Suggest trained NM can safely provide PPTL
  
  Dusitin, et al., Lancet 1980

Thailand – Expanded Field Trial
- Goal
  - Replicability of training and using NM in provincial setting
  - Acceptability by Ob-Gyns and Clients
- Field trial
  - 20 Nurse-Midwives/20 Prov’l Hospitals
  - 12 weeks theoretical and hands on training
  - Completed PPTL in 3,549 women
- Results
  - Operating time average – 14.8 min
  - Complication rate not increased
  - 97% of clients were satisfied with the service provided by NM
  - Almost all Ob-Gyns involved positively support the use of NM
  - Recommendation to expand use

SUMMARY

- Tubal ligation is safe and highly effective
- TL in the postpartum period using the minilap under local anesthesia is convenient, practical and easy to perform
- US and LMIC examples demonstrate feasibility of offering PPTL
- Increasing access to high quality PPTL in LMIC should consider utilizing trained nurse, midwives and clinical officers
- Opportunity for integration with increasing trend towards facility deliveries