Fallopian Tube Occlusion (Revisited)

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• Consultant/Advisory Board: Merit Medical
• Other: Educational Grant Support, Boston Scientific
Permanent Birth Control

- World population 2.5B (1950), >7.1B now
- Despite decreasing fertility in developing countries (<3/W), fertility in least developed nations high (5.5/W).
- >125 million women in developing countries alone had unmet need for contraception.
- Sterilization is most common method for contraception.
Incisional: Lap Tubal Ligation(s)
Hysteroscopic/Fluoro Tubal Sterilization

- Alternative to incisional methods of tubal ligation
- Performed without general anesthesia
- Micro-insert elicits inflammation → tubal occlusion
- STOP trial mid-late 90’s.
- FDA approval 11/02.
- More recent issues c pain, perforation (Erin Brockovich)
Benefits over tubal ligation

Highly effective **with proper placement**

- Out patient surgery setting
- Minimal or no sedation
- Avoidance of general anesthesia
- No surgery/incision/abdominal scars
- Immediate return to normal activities

Smaller delivery device: No paracervical block, more pt comfort

Visualization of tube ("birds eye view") vs. ostium→less perforations, better recognition & less complications.

Immediate confirmation of success
Langenveld et al 2008 Fert & Ster

- 149 pts: only 129 (86.5%) had bilateral successful placement on 1st attempt

- Significant pain, difficult placement sig increase risk for perforation.
Essure System

delivery catheter

micro-insert

ergonomic handle
Micro-insert design/radiographic view

- Distal end of outer coil
- Distal end of inner coil
- Expanded outer coil (sometimes visible)
- End of outer coil (Platinum band)
- Proximal end of inner coil
- Distal tip of micro-insert
- Outer coil starts here
- Proximal end of inner coil
Fluoroscopic Placement
Fluoroscopic Placement
Hysteroscopic Lt, Fluoroscopic Rt
Proximal Lt tubal occlusion
s/p TFTR & Fluoro Essure
Essure Confirmation Test

• Hysterosalpingogram (HSG) performed 3 months post Essure placement
• Demonstrates correct Essure micro-insert placement and occlusion in both fallopian tubes
• “3 Ps”: Presence, Position, and Plugged
• Different from a HSG for infertility: low pressure
• OBG Management Oct 2008 Supplement Hysteroscopic Sterilization: What you need to know about HSG confirmation. Drs. Famuyide & Lipman
3 P's

• **Presence**: 2 devices

• **Position**: Proximal end of inner coil within uterotubal junction
  - **Proximal**: >50% of inner coil trailing into uterine cavity.
  - **Distal**: Proximal end of inner coil within tube, but >3cm distal to uterotubal junction.

• **Plugged**: No contrast beyond either device.
Satisfactory
Position: Too Proximal
Position: Too Distal
Final “P” missing
Perforation: “Pigtail sign”
Conclusions

- Problems with the Essure device are with the Operators and not the device.
- Hysteroscopic placement never really sure where you are. Feedback in 3mos (or never).
- Fluoroscopic always know where you are; much more comfortable for the patient (lower profile delivery, less/no perfs), immediate feedback.
- Should be more efficacious, safer, more comfortable, and less expensive than hysteroscopic.
- Trial in progress