# OCCLUSION TECHNIQUES FOR TUBAL STERILIZATION

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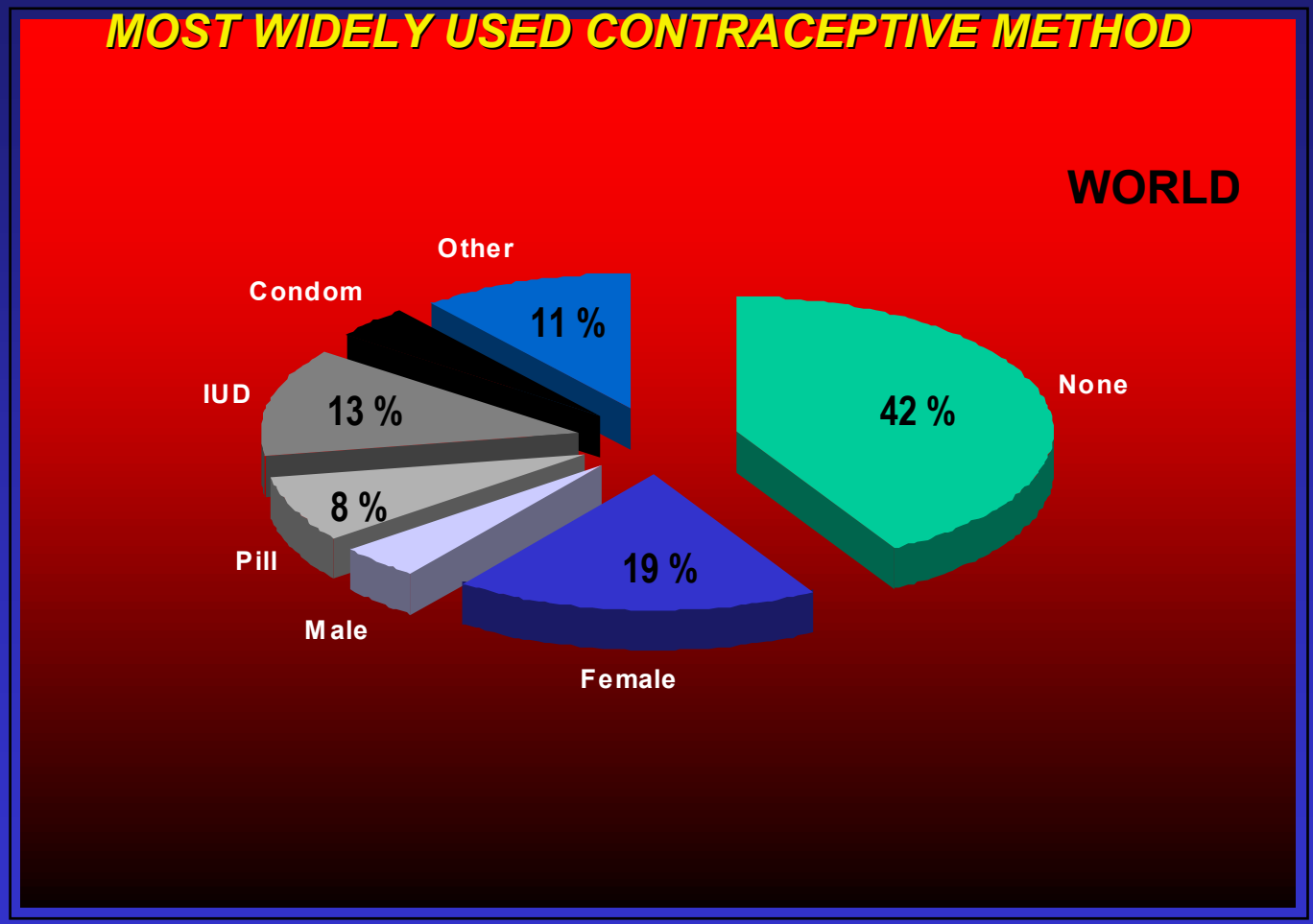
# TUBAL STERILIZATION
## THE PROCEDURES

- *Minilaparotomy vs Laparoscopy*
- *Interval vs Postpartum*
- *General vs Local anaesthesia*
- *Occlusion Techniques:*
  - *Pomeroy - Other related techniques*
  - *Electrocoagulation (bipolar- unipolar)*
  - *Tubal ring*
  - *Clips (Hulka, Filshie)*
  - *Chemical agents (quinacrine, MCA)*
  - *Removable plugs*

# TUBAL STERILIZATION TODAY




*United Nations 1998 Report*

# OBJECTIVES

*To compare the different tubal occlusion techniques in terms of major and minor morbidity, failure rates (pregnancies), technical difficulties and women and surgeons satisfaction*

# ANALYSIS

- *All RCTs*
- *Inclusion criteria:*

  *Concealment of allocation*
- *Analysis in five subgroups:*
  - *Tubal ring vs Clip - 4 Trials*
  - *Tubal ring vs Electrocoagulation - 3 Trials*
  - *Pomeroy vs Electrocoagulation - 2 Trials*
  - *Pomeroy vs Clip - 1 Trial*
  - *Hulka vs Filshie Clip - 1 Trial*

# INCLUDED STUDIES

| Study ID | Method of Randomization | Participants | Interventions |
|---|---|---|---|
| Stovall 1991 | Computer-generated schedule | 365 women | Spring-loaded clip vs tubal ring |
| Aranda 1985 | Computer generated labels and sealed in opaque envelopes Multicenter | 663 women | Tubal ring vs Rocket clip |
| Argueta 1980 | Not specified | 299 women | Spring-loaded clip vs tubal ring |
| Sitompul 1984 | Not specified | 300 women | Modified Pomeroy technique vs electrocoagulation |
| WHO 1982 | Envelopes centrally generated by WHO Multicenter | 1827 women | Modified Pomeroy method vs electrocoagulation |
| Aranda 1976 | Sealed envelopes containig a card. | 299 women | Electrocoagulation vs tubal ring |
| Koetsawang 1978 | Not stated. | 300 women | Unipolar electrocoagulation vs t ring |
| Yan 1990 | Sealed preprinted labels | 200 women | Pomeroy method vs Filshie clip |
| Toplis 1988 | Envelopes | 200 women | Hulka clip vs Filshie clip |
| Lipscomb 1994 | Computer-generated numbers | 500 women | 1)Silastic ring, 2) Bipolar electrocoagulation, 3) Hulka clip |

# RESULTS

| Comparison | Major Morbidity | Minor Morbidity | Technical Failures | Failure Rate | Complaints |
|---|---|---|---|---|---|
| Tubal ring vs Clip | 0.14 (0.00-7.05) | **2.15 (1.22-3.78)** | **3.87 (1.9-7.89)** | 1.48 (0.67-3.28) | 1.18 (0.9-1.54) |
| Tubal ring vs Coagulation | 0.14 (0.00-7.01) | 0.97 (0.5-1.87) | 3.42 (0.6-19.8) | **7.62 (1.1-54.5)** | **2.32 (1.78-3.04)** |
| Pomeroy vs Coagulation | **2.87 (1.13-7.25)** | **1.60 (1.10-2.33)** | NS | 4.47 (0.1-286.8) | **2.14 (1.74-2.62)** |
| Pomeroy vs Clip | NS | 7.39 (0.5-119.1) | NS | 8.28 (0.1-419.9) | NS |
| Hulka vs Filshie clip | NS | 0.14 (0.00-7.32) | NS | NS | 1.74 (0.99-3.03) |

Table 1: *Overall results reported as Odds Ratio and Confidence Interval (CI).*

# RESULTS

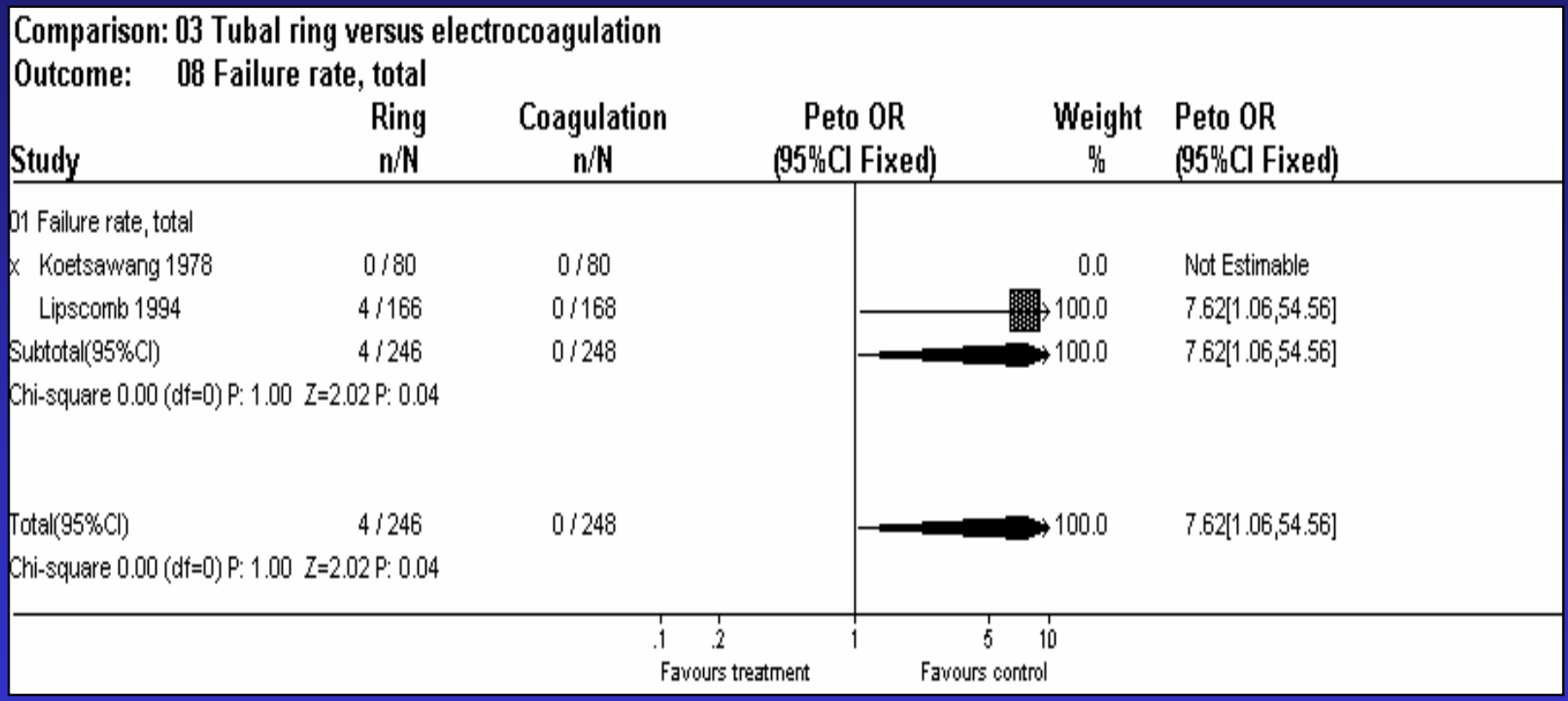



**Figure 2:** ***Effect of small sample size on the CI for failure rate in the comparison between tubal ring and electrocoagulation***

# RESULTS

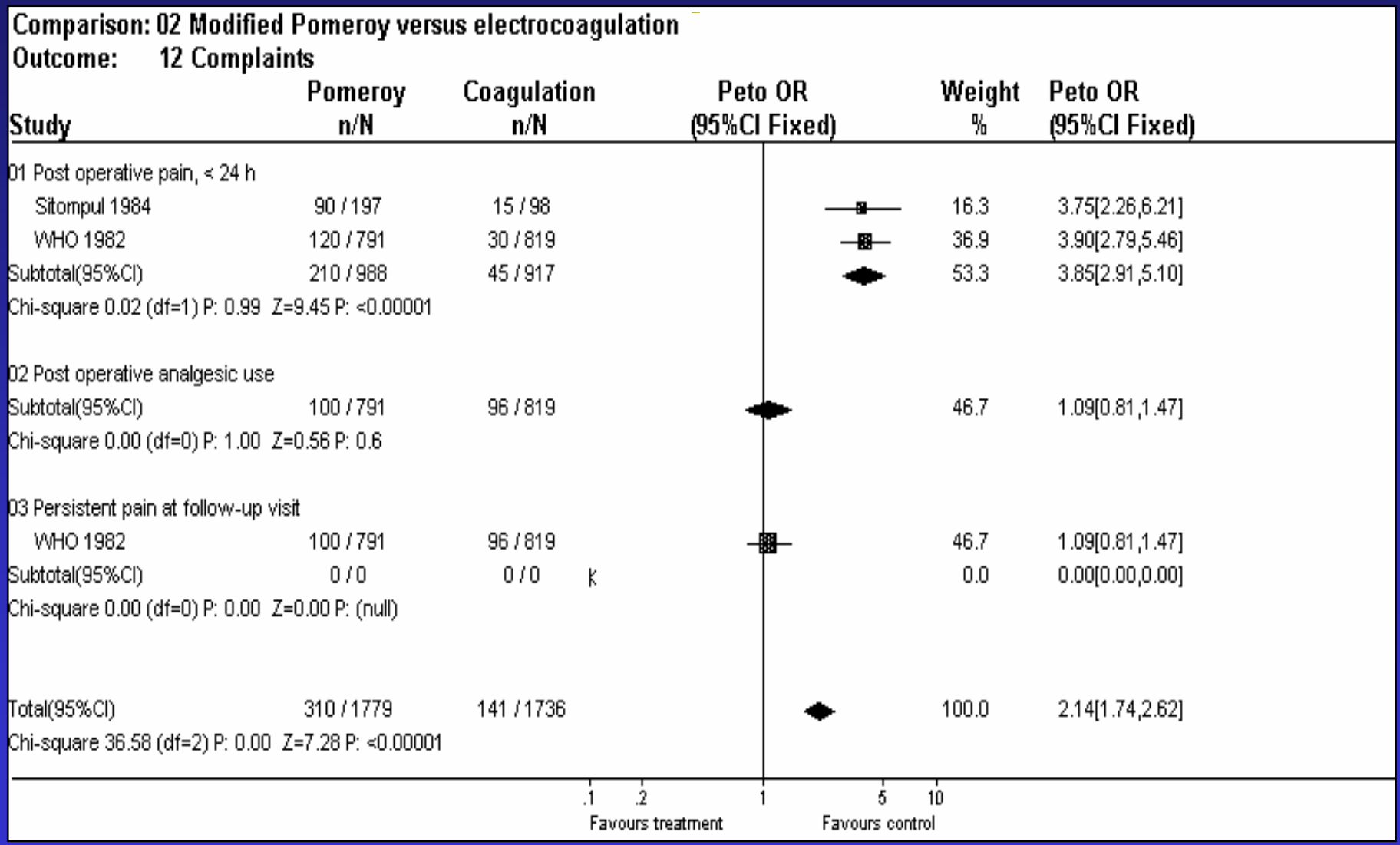



**Figure 1:** ***Effect of a common variable in the comparison between Pomeroy and EC***

# CONCLUSIONS

- *Inadequate sample size for rare outcomes, some of them life-threatening*
- *Inadequate follow-up for some variables such as failure rate*
- *Lack of information for other important contributing factors*
- *Proper education and practical aspects of complex techniques in developing country centers*

# Thank You