

# Paracervical block as pain treatment during second-trimester MTOP: an RCT

Inga-Maj Andersson, RN RM PhD

Lina Benson, Statistician MSc

Kyllike Christensson, RM PhD Professor

Kristina Gemzell-Danielsson, MD PhD Professor

Department of Women's and Children's Health, Karolinska Institutet  
Stockholm South General Hospital



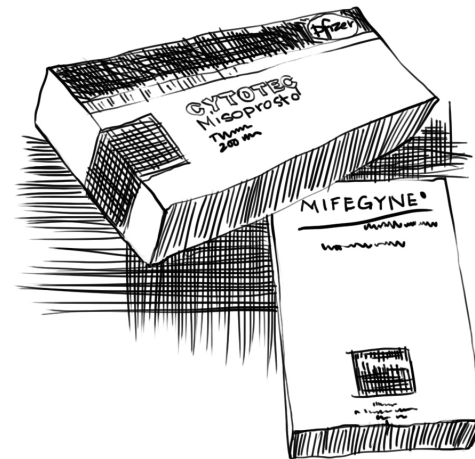
SÖDERSJUKHUSET

# BACKGROUND

- The most common side effect of misoprostol is pain
- Women undergoing second-trimester MTOP reported physical pain of strong intensity  
*Andersson et al PlosOne December 2014*
- Hard to find ways for pain treatment among nurses taking care of women undergoing second-trimester MTOP  
*Andersson et al Contraception January 2014*

# AIM

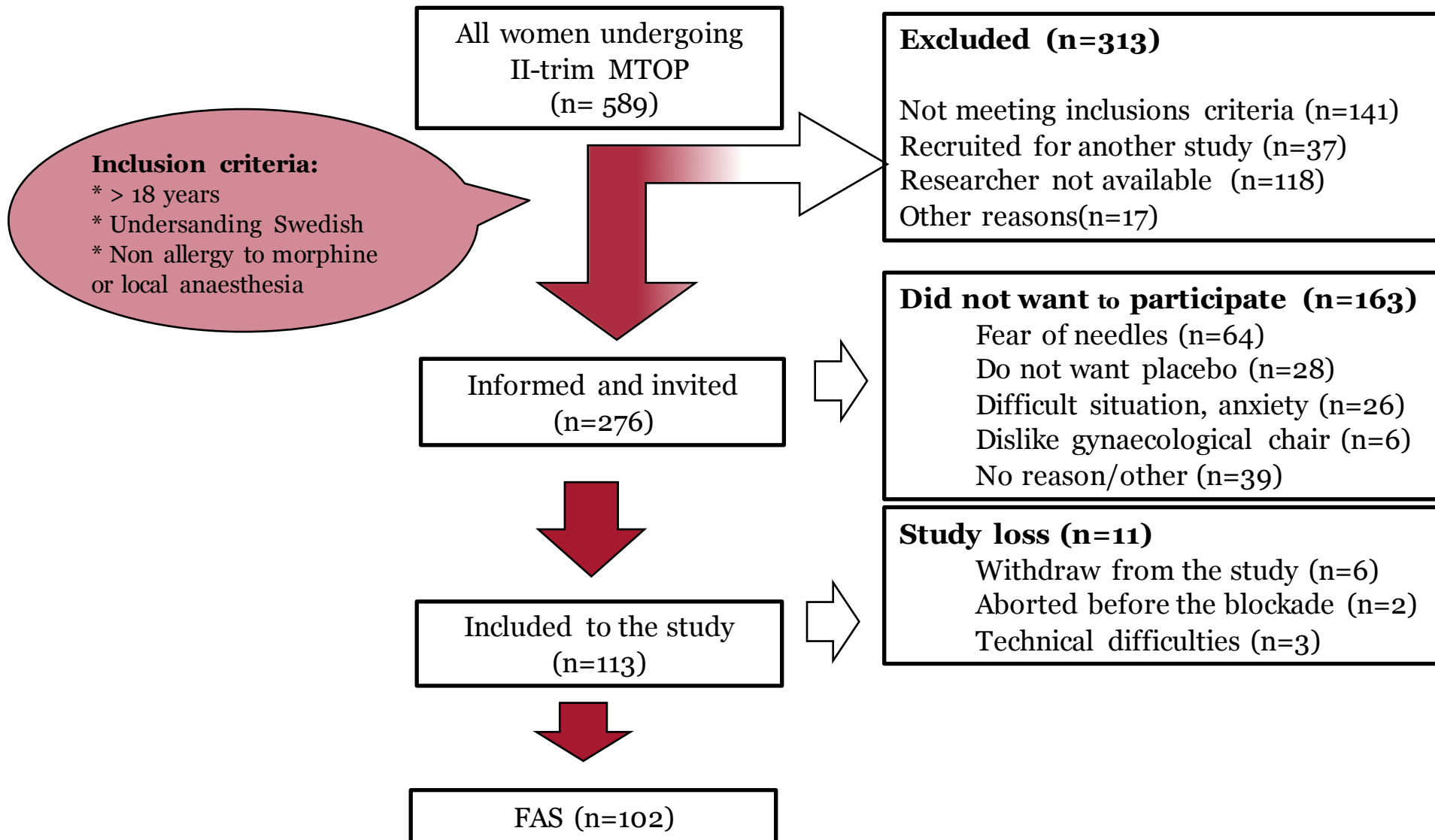
The aim was to determine if paracervical blockade, PCB, administered before the onset of pain could decrease women's pain experience during second-trimester MToP.



# Data collection

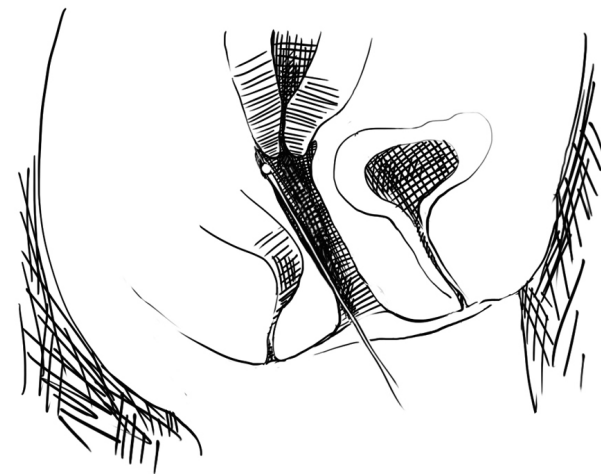
- May 2012 - April 2015
- 102 women included in the analysis
- Indication
  - fetal malformation (n= 25)
  - unintended pregnancy (n= 77)
- Marital status
  - single (n=27)
  - boyfriend (n=20)
  - married/cohabiting (n=50)

# FLOW CHART



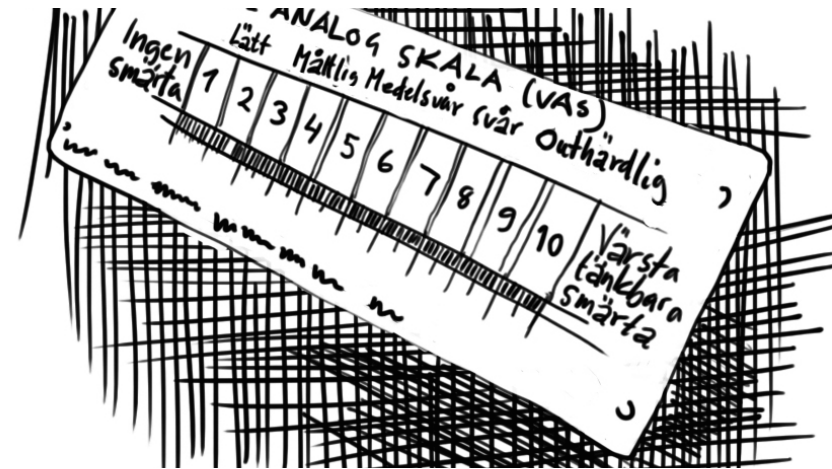
# A double-blinded RCT

- The woman got a paracervical blockade one hour after the first dose of misoprostol.
- 20 ml active substance (bupivacaine) or 20 ml placebo (sodium chloride)



# Primary outcome

Pain intensity measured as any VAS  $\geq 7$



Pain intensity (VAS) was measured every half hour

# Secondary outcomes

- The induction-to-abortion interval
- The total morphine consumption
- Safety
- Side effects



# RESULTS

- 65 – 75 % of the participants experienced severe pain, VAS  $\geq 7$ , at any time point during the abortion
- No differences in outcomes between the two groups
  - VAS
  - induction-to-abortion interval
  - morphine consumption
- No differences in
  - time to placenta expulsion
  - rates of surgical intervention
  - side effects

	<b>Sodium chloride n=50</b>	<b>Bupivacaine n=52</b>	<b>RR (CI 95%)</b>	<b>P-value</b>
<b>Highest pain intensity</b> VAS 0-6 VAS 7-10	17 (35%) 32 (65%)	13 (25%) 39 (75%)	1,1 (0,9 – 1,5)	0,292
<b>Induction-to-abortion interval (min)</b> Median (q1 – q3)	398 (260 – 540)	435 (320 – 748)	80 (-5 – 180)	0,075
<b>Morfin consumption (mg)</b> Median (q1 – q3)	6,0 (1,0 – 10,0)	5,0 (1,3 – 10,5)	0,0 (-2 – 2,5)	0,772

# What may have influenced the findings?

- The study loss – 60% did not want to participate
- The study design
- The placebo effect
- Frequent presence by nurses when measuring pain
- Frequent presence by nurses when measuring pain
- Increased pressure in the tissue by 20 ml fluid
  
- Paracervical block is not effective pain treatment for abortion pain in second-trimester MTOP (??)

# Conclusion

Prophylactic PCB did not lead to a clinically significant reduction in maximal pain scores and the need for additional opiates during second-trimester MToP.

And...

...there is still a clear need for more optimal pain treatment for women undergoing second-trimester MTOP.

Thank you!  
Inga-Maj.Andersson@ki.se



Illustrations: Ingrid Fröhlich