

Comparing mechanical IOL versus ARM in women with one previous caesarean sections

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Objectives

To determine the outcome of IOL using Cooks balloon versus Artificial Rupture of Membranes (ARM) in women with history of one caesarean sections.

Design

Retrospective study of obstetric electronic case notes (Badgernet) of the women booked for Induction of Labour.

Methods

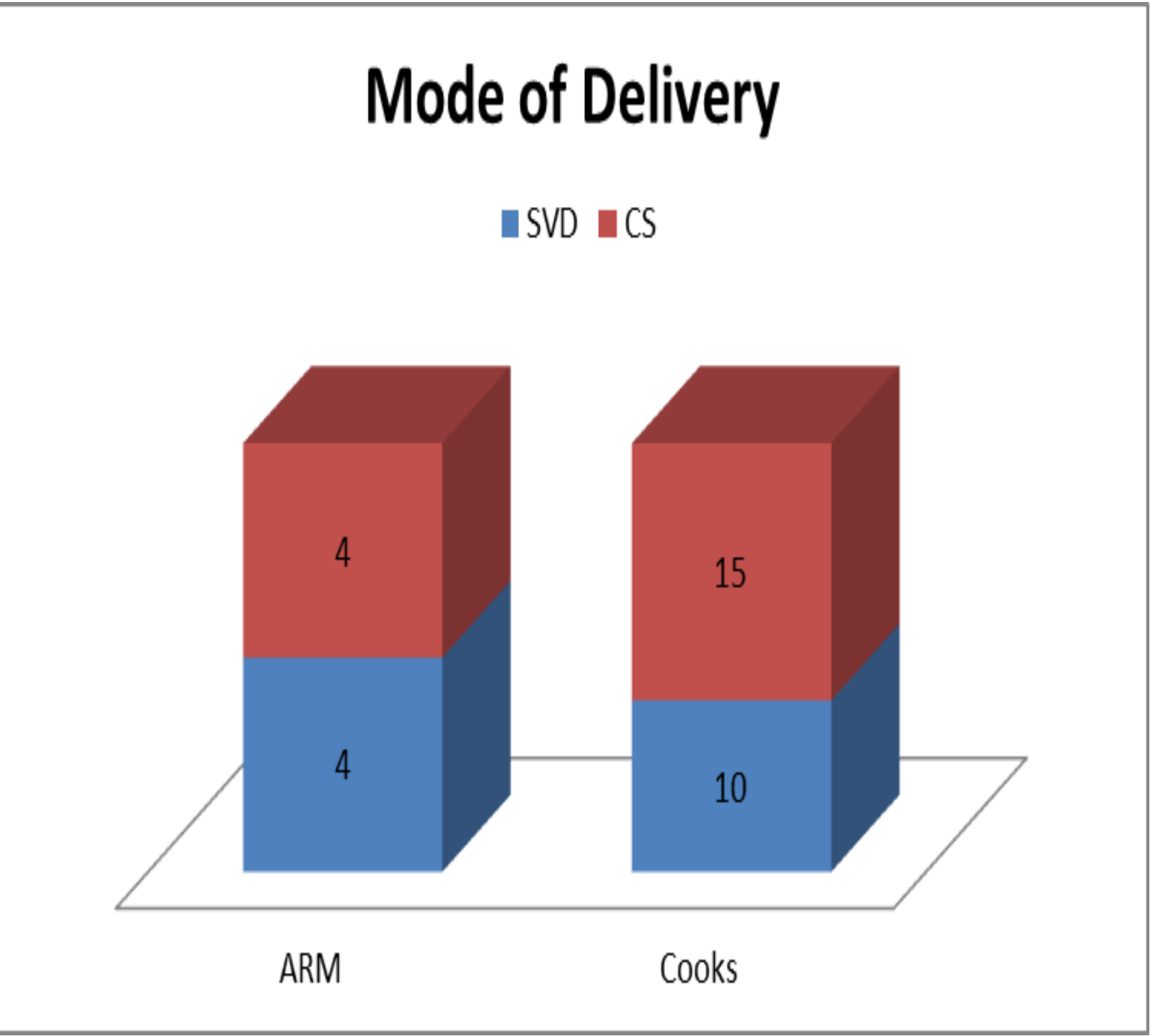
Women were identified from Induction of labour diary. The study period was from Jan 1st 2020 to 31st December 2020, a total of 12 months. The outcome variables included are age, parity, parity during previous caesarean section, gestational age at IOL, indication, volume of normal saline used to inflate the balloon, artificial rupture of membranes, spontaneous onset of labor, need for oxytocin, duration of first and second stage, mode of delivery, reasons for caesarean section or instrumental delivery, analgesia during labour ,intervention, length of hospital stay and maternal & neonatal complications.

Results

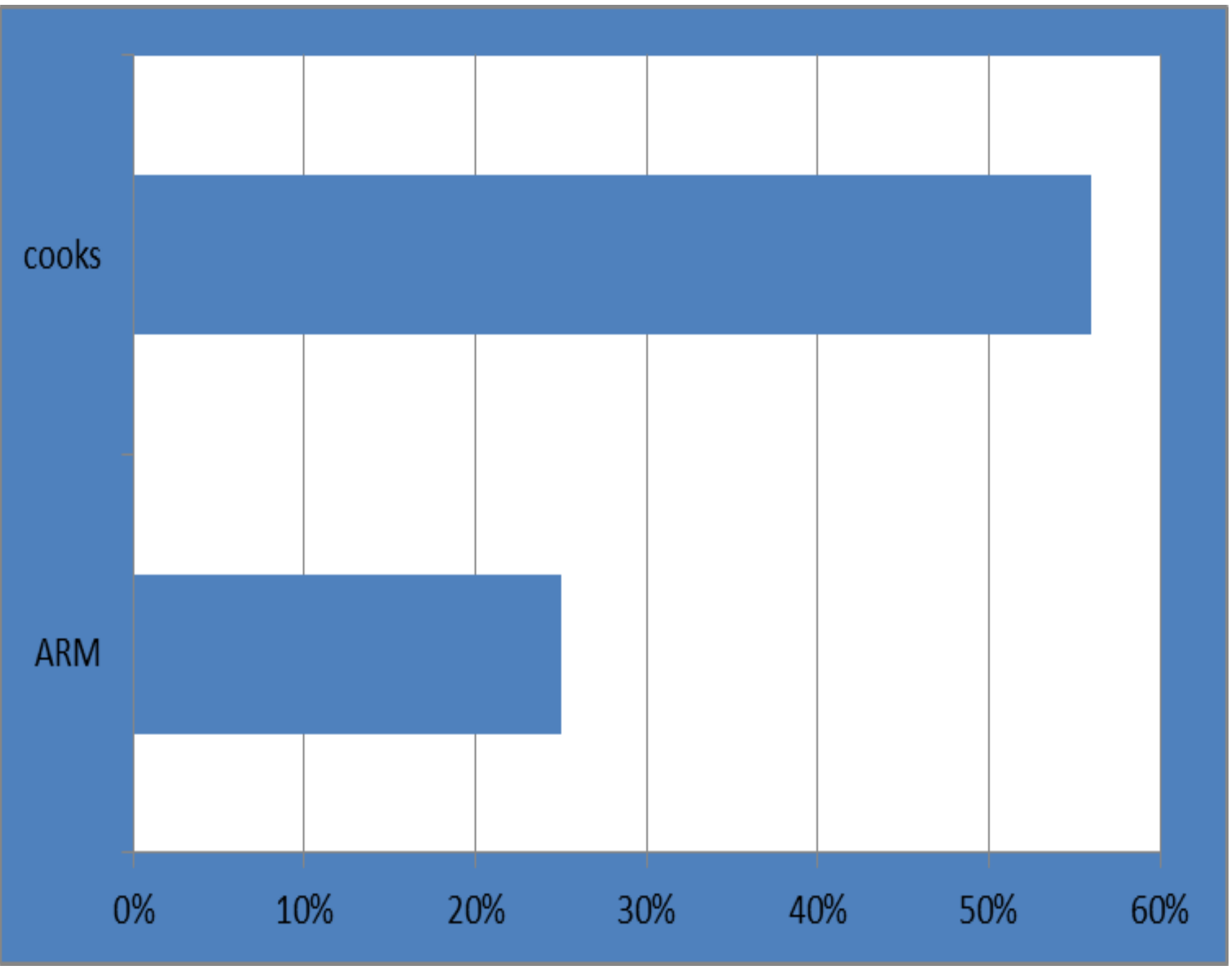
36 women were scheduled to have Cook’s Balloon for IOL in view of one previous caesarean section. Out of 36 women, 25 had Cook’s Balloon (nearly 70 %), 8 (22%) had ARM and 3 had caesarean section for malpresentation at start of induction process. All women were parous and were induced after 37 weeks of gestation.

In the Cook’s Balloon group, 40% (10) of the women had vaginal delivery while in ARM group 50% (4) women had vaginal delivery. Two women out of 10 (20%) in Cook’s balloon had instrumental delivery.

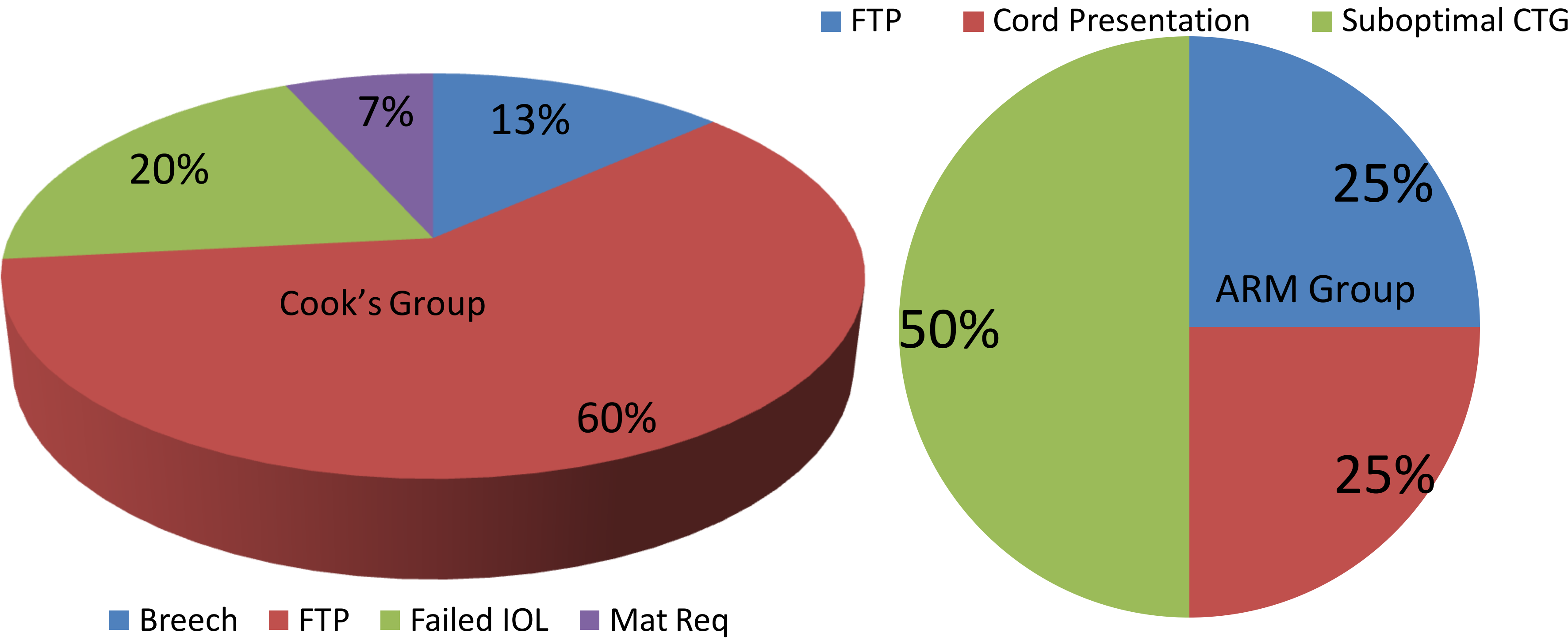
Oxytocin requirement: As predicted in ARM group only 2 (25%). women required oxytocin while in cook’s balloon group 14 (56%) women required oxytocin. The total average duration of labour was slightly longer in Cook’s Balloon group as compared to ARM group. ie 6 hours versus 4 hours. There were no significant maternal and neonatal complications in both groups. Most of the women in both groups who delivered vaginally chose to have early discharge and required less analgesics during labour.



Oxytocin usage



CS Indications in both groups



Conclusion

Mechanical IOL or ARM is preferred over chemical IOL for women with history of previous caesarean section as they are high risk of uterine/scar rupture. The results from the two groups are comparable except for oxytocin requirement which was higher in Cook’s Balloon group. ARM is preferable over mechanical IOL if cervix is favourable as it is closer to natural onset of labour and reduces hospital stay. With rising caesarean section rates, having mechanical induction methods like Cook’s balloon for women with caesarean section is always beneficial to reduce the surgical & anaesthetic risks, also improve women's satisfaction through their birth journey. Our study is too small to derive any reliable statistical conclusions, more research is recommended.