

Induction of Labour in Primiparous Patients: Outcomes from a District General Hospital

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Objective

To assess indications for, methods and outcomes of, induction of labour (IOL) in primiparous patients at a district general hospital.

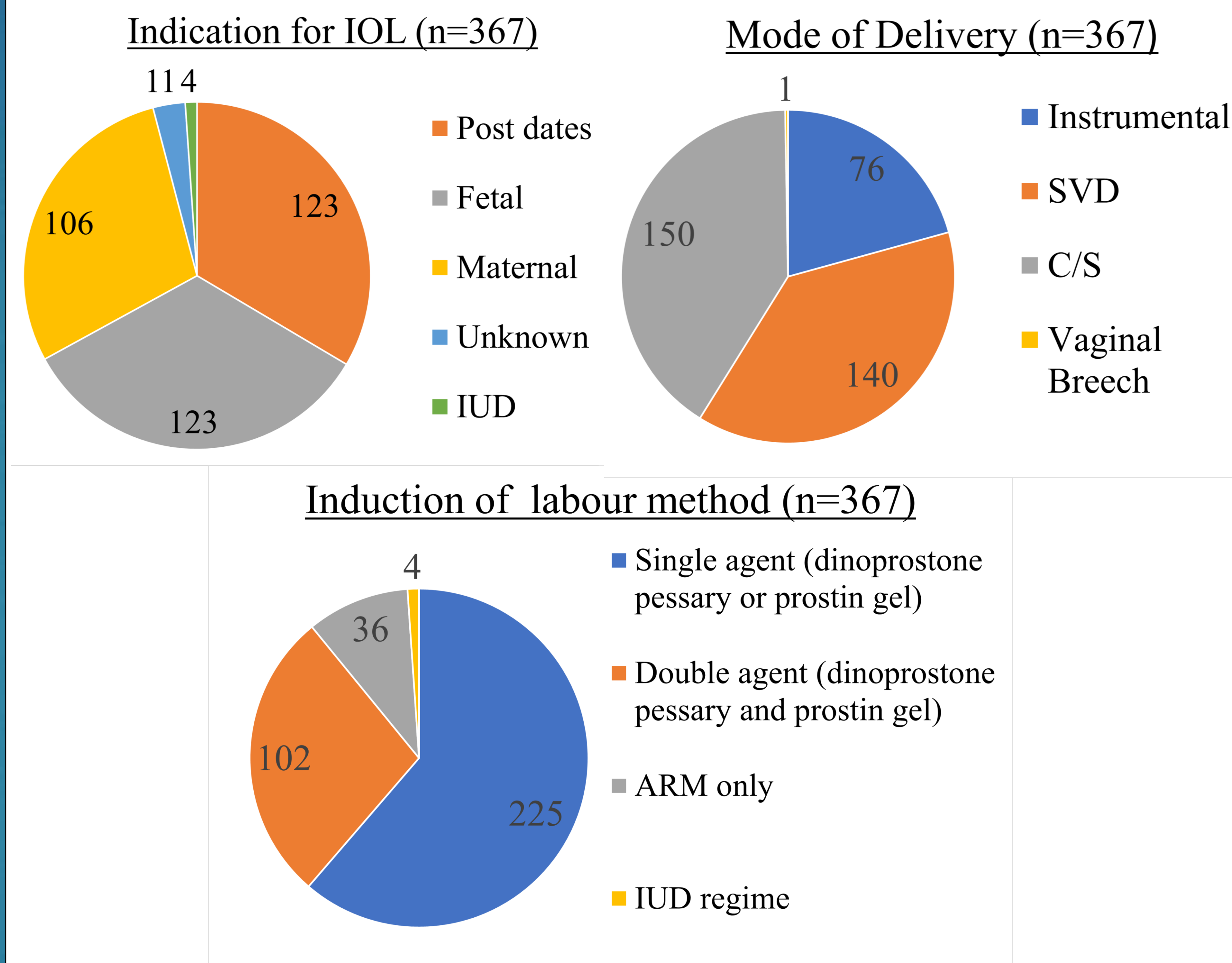
Design

A retrospective review of records.

Method

- Data was gathered from electronic maternity records for all patients undergoing IOL between September 1st 2021 and May 31st 2022.
- Only primiparous patients were included in the study, n = 367.
- Data was collected on: indication for induction; gestational age; method of induction; mode of delivery; epidural use; third-degree tear rate; and blood loss.
- Primary outcome: to assess the relationship between caesarean section rate and IOL method.
- Secondary outcome: to assess the impact of IOL method on PPH rate and epidural use.
- Chi-squared analysis was performed to compare caesarean section, epidural and PPH rate according to IOL method.

Results



- There was a **significant difference (p<.01) in caesarean section rate depending on induction method** - ARM (17%, n=6) Vs single hormonal agent (39%, n=87) Vs two hormonal agent (56%, n=57).
- The post-partum haemorrhage (PPH) rate over 1000ml was 18% (n=67). There was **no difference in PPH rate depending on the induction method** used (p=.542).

- Over one-third (n=129) of patients used an epidural for pain relief during labour. **There was no difference between groups depending on induction method (p=.292).**
- The third-degree tear rate for all primiparous inductions was 3.3% (n=12).

Discussion

- This study used data from one maternity unit and is therefore subject to selection bias, however findings are in keeping with the increased rate of birth interventions seen following IOL nationally.
- The association between use of multiple IOL agents and an increased section rate may help to predict the need for birth interventions and therefore guide patient counselling and birth planning.

Conclusions

- The **caesarean section rate was 40%** in this study. Use of multiple hormonal induction agents was associated with higher caesarean section rates.
- This study adds to the literature on delivery outcomes following IOL. Further research is required to assess whether such findings apply at a population level.