



Prostin™ Versus Cervidil™ For Cervical Ripening

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Study Purpose

- To determine time from insertion to delivery for Prostin™ versus Cervidil™ for cervical ripening



What is Cervidil™?

- Dinoprostone 10 mg (prostaglandin E2)
- 0.3 mg/h X 12h released from hydrogel matrix insert



What is Prostin™?

- Dinoprostone (PGE₂) in either 1mg or 2 mg doses given as an intravaginal gel



Methods

Retrospective cohort chart review of all inductions from January-June, 2005

Inclusion Criteria

- Singleton pregnancy
- Live fetus

Exclusion Criteria

- Use of multiple ripening agents



Participants

- 176 charts eligible
- 5 charts missing data
- 171 charts reviewed
- 38 Cervidil
- 133 Prostin



Methods

Outcome Measures

- Induction start time to delivery
- Type of delivery
- Indication for caesarean section
- Indication for induction
- Pre-induction Bishop score
- Doses of induction agent
- Maternal age and weight
- Parity
- Gestational age and birth weight
- Use of ARM
- Use of Oxytocin
- Meconium, Apgars, Scalp pH, SCN admission
- Epidural



Methods

Analysis

- Excel
- Epi Info Stat Calc package
- Continuous variables compared using Student t-test
- Categorical variables compared with Chi-square tests



Statistics

- Primary Outcome
 - Time from induction start to delivery
- Secondary Outcome
 - Method of delivery
 - Indication for C/S



Table 1: Comparison of selected maternal and labor characteristics.

	Cervidil n=38 n(%)	Prostin n=133 n(%)	P Value
Nulliparity	22 (57.9)	62 (46.6)	0.22
Induction indication			
Postdates	15 (39.5)	56 (42.1)	0.77
HTN	16 (42.1)	38 (28.6)	0.11
Other	7 (18.4)	39 (29.3)	0.18
Starting Bishop <6	37 (97.4)	116 (87.2)	0.07
SRM	6 (15.8)	39 (29.3)	0.10
Oxytocin	30 (79.00)	110 (82.7)	0.60
Epidural	32 (84.2)	119 (89.5)	0.40
C/S 2 ^o failed induction	3 (7.9)	23 (17.3)	0.16

Table 2: Comparison of cervical ripening agents

	Cervidil n=38	Prostin n=133	P-value
Mean time from induction start to delivery in mins (SD)	1326 (726)	1677 (898)	0.028
Mean doses of ripening agent (SD)	1.08 (0.27)	1.92 (1.03)	0.001

Table 3: Comparison of cervical ripening agent and various fetal characteristics

	Cervidil n=38	Prostin n=133	P value
Use of scalp pH (%)	0 (0)	8 (6)	0.12
Presence of meconium (%)	11 (28.9)	21 (15.8)	0.07
5 minute Apgar <7 (%)	4 (10.5)	1 (0.75)	0.009
Admission to Neonatal Care Unit (%)	6 (15.8)	17 (12.8)	0.63

Table 4: Comparison of cervical ripening agent and type of delivery

	Cervidil n=38	Prostin n=133	P-value	RR
Spontaneous Vaginal Delivery (%)	25 (66)	66 (50)	0.08	1.33 (1.0-1.76)
Assisted Vaginal Delivery (forceps or vacuum)	3 (8)	23 (17)	0.16	0.46 (0.14- 1.44)
Caesarean Section (%)	10 (26)	44 (33)	0.43	0.80 (0.44-1.43)

Conclusion

This cohort study demonstrated a statistically significant decrease in time from start of induction to delivery when using Cervidil™ as compared to Prostin™ for cervical ripening. The Cervidil™ group had more 5 minute Apgars <7. Prospective study to further evaluate these results and patient satisfaction is required.



Looking Ahead

- RCT Cervidil vs Prostin
- Patient satisfaction
- Cost
- ?? outpatient

