OP027 FEASIBILITY PILOT RANDOMIZED CONTROLLED TRIAL OF LABOR EPIDURAL TAPING STRATEGIES: LETS

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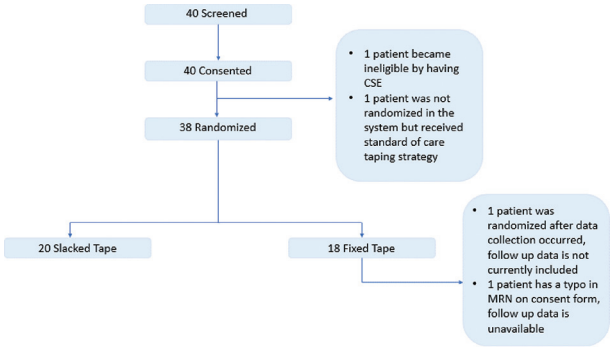
Background and Aims Labour epidural failure rate has been reported as high as 7%. In up to 54% of cases, catheter migration has been identified as the cause. We hypothesized that fixing the catheter to the skin at the insertion site may contribute to catheter migration. This study investigated the feasibility of conducting a prospective, randomized controlled trial to assess the impact of a novel labour epidural catheter taping technique on catheter failure.

Methods Laboring parturients who requested epidural placement were randomized to have the catheter taped either in the standard fashion or with a length of catheter outside the insertion site which wasn't fixed to the skin. (figure 1) Patients with BMI >50; contraindications to epidural placement or who underwent combined spinal epidural or dural puncture epidural were excluded. Twenty patients were randomized to each arm. (figure 2) The primary endpoint was the rate of epidural catheter replacement at over 120 minutes following placement.

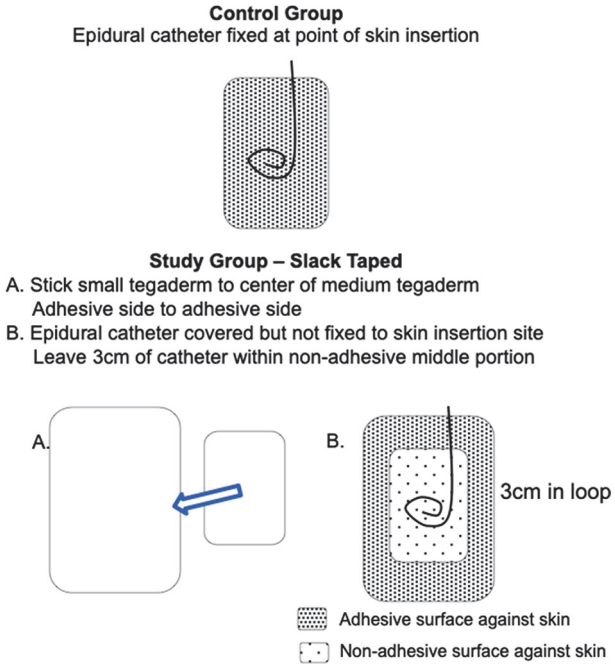
Results Table 1 summarizes the characteristics of each group. Two catheters in the intervention group required replacement at 11 hours and 14 hours following placement. There were no epidural catheter-related complications in either group. Documentation of pain scores and dermatomal levels was inconsistent in both groups

Abstract OP027 Table 1 Stratified by randomized group

	Slacked Tape	Fixed Tape	SMD
n	20	17	
Age (median [IQR])	33.00 [30.00, 36.00]	33.00 [28.00, 34.25]	0.510
Centimeters loss of resistance (median [IQR])	6.00 [5.00, 7.12]	5.50 [5.00, 6.62]	0.127
Centimeters catheter is taped (median [IQR])	11.00 [10.00, 12.00]	10.5.0 [10.00, 12.00]	0.071
Centimeters catheter is taped at removal (median [IQR])	12.00 [10.25, 13.00]	11.00 [9.75, 11.88]	0.375
Mode of Delivery Cesarean Section	4 (20.0%)	8 (50.0%)	0.663
Catheter Removal	3 (15%)	0 (0%)	0.594



Abstract OP027 Figure 1



Abstract OP027 Figure 2 Taping strategies

Conclusions An RCT comparing the two taping strategies is safe and feasible. Recruitment using verbal consent is very successful for enrollment. The rate of catheter replacement at a time greater than or equal to two hours after placement is an appropriate primary endpoint.

OP028 NOVAL ANTERIOR CUL DE SAC CATHETER FURTHER DECREASES OPIOID REQUIREMENTS COMPARED TO A 10-YEAR ESTABLISHED ERAS WITH TAP FOLLOWING CESAREAN SECTIONS

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Background and Aims Cesarean surgical deliveries account for 31.8% of deliveries worldwide and 38 million projected by 2030. To reduce pain and suffering due to visceral and somatic pain, several multimodal ERAS protocols including various plane type blocks have been developed and utilized to promote recovery and minimize opioids. This study aimed to compare ERAS protocols utilizing either an Anterior Cul de Sac catheter or TAP block to further decrease opioid requirements from a well-established 10-year protocol requiring a mean morphine consumption of 1.7 mg during POD-0.

Methods A retrospective chart analysis of 81 cesarean patients that received a standard ERAS protocol including spinal anesthesia with 0.1mg of morphine and NSAIDS. Group 1

received single injection bilateral TAP blocks with 15 mL 0.5% ropivacaine. Group 2 received ACDS catheter with 15 mL bolus 0.5% ropivacaine followed by 10 mL/hr 0.2% ropivacaine infusion for 54.5 hours. The primary outcome measured was opioid consumption during postoperative day (POD) 0 through 3.

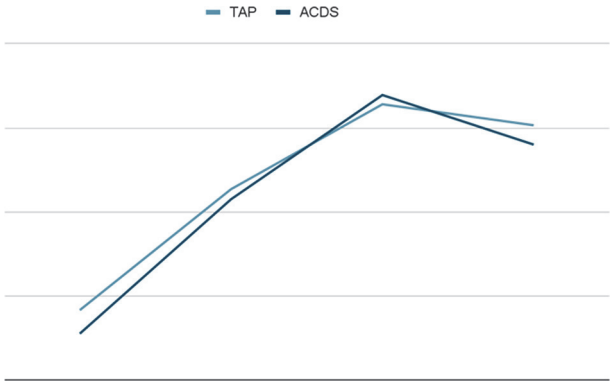
Abstract OP028 Table 1

	TAP-56 pts	ACDS-26 pts	*P* Value
Number of Prior C-sections	1.2	1.1	**0.775**
Age	28.8 yrs	28.4 yrs	**0.685**
BMI	36.1	36.9	**0.737**
Gravida	3.4	2.8	**0.193**
Gestation	38.5 weeks	38.6 weeks	**0.721**
ASA	2.1	2.1	**0.947**
Smoker	25.5%	19.2%	**0.537**

Abstract OP028 Table 2

	TAP	ACDS	*P* Value
POD 0	1.7 mg	0.4 mg	0.028
POD 1	4.9 mg	2.2 mg	0.047
POD 2	1.7 mg	0.7 mg	0.245
Total	8.6 mg	3.3 mg	0.027

Demographics
Results



Abstract OP028 Figure 1 Pain scores

Results Subjects that received ACDS catheters consumed significantly less opioids as measured in morphine equivalents (mg) in comparison to the bilateral TAP block patients on POD 0 (average of 0.39 mg versus 1.68 mg respectively; p=0.034) and POD 1 (average of 2.21 mg versus 4.87 respectively; p=0.034). Total opioid consumption for the entire hospital stay was significantly less in the ACDS group in comparison to the TAP group (average of 3.4 mg versus 8.1 mg respectively; p=0.024).
Conclusions The ACDS catheters reduce opioid requirements compared to the TAP blocks with longer analgesia without increasing pain scores.

OP029 DEVELOPMENT OF A RISK STRATIFICATION MODEL FOR CAESAREAN DELIVERY WOMEN AT INCREASED RISK OF SIGNIFICANT POST-CAESAREAN PAIN

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Background and Aims One of the significant barriers of optimal post-Caesarean pain management is the lack of a clinically relevant risk stratification strategy for early identification of women at risk of significant post-Caesarean pain. The aim of this study is to develop a predictive model for pain score at 13-24 hours post-Caesarean, by analyzing data from our centralized enterprise analytic platform (eHIntS).
Methods We analyzed data retrieved from eHIntS dataset in 979 patients between January to July 2020 at our institution. The data included patient demographics, pre-Caesarean pain score, type of admission, duration of surgery, procedure code, pain scores at PACU and post-Caesarean 0-24th hours and adverse events.
Results Overall, 85 out of 979 (9%) women had significant pain (NRS 4-10) during their hospital stay after Caesarean delivery with spinal morphine. Specifically, there were 27 (3%) women with an outcome of significant pain on movement at 13-24 hours post-Caesarean. Univariate analysis identified factors including race, having emergency surgery, increased pain score at rest and on movement (post-Caesarean 1-12th). The multivariable model showed that Indian race as compared with Chinese (OR 4.13, 95%CI 1.36 to 12.56, p=0.0124) and having higher pain score on movement at 1-12th hours post-Caesarean (OR 3.28, 95%CI 2.04 to 5.26, p<0.001) were significant independent risk factors (AUC=0.783).
Conclusions This pilot data will need further refinement in extending into the post-Caesarean recovery period. The model also requires verification in a larger and more diverse dataset to increase the predictive power of the model.