

ePoster session 4 – Station 6

EP141 NEW OBJECTIVE METHODS FOR EVALUATING PERIPHERAL BLOCK SUCCESS: ULTRASONOGRAPHY, TISSUE OXYGEN SATURATION, PERFUSION INDEX

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Application for ESRA Abstract Prizes: I apply as an Anesthesiologist (Aged 35 years old or less)

Background and Aims Peripheral blocks are commonly used in upper extremity surgery, and their success is usually evaluated by subjective methods, which may not be reliable in uncooperative and sedated patients. The aim of this study was to investigate the effectiveness of new objective methods for evaluating the success of infraclavicular block, including ultrasonographic evaluation of brachial vein diameter (BVD), perfusion index (PI), and tissue oxygen saturation (StO₂).

Methods Fifty-five ASA 1-2 patients undergoing upper extremity surgery were included in the study. Before the block, BVD, PI, and StO₂ were measured, and body temperature was recorded. After the block, these values were monitored for the first 30 minutes, and pain sensation, autonomic and motor block were evaluated.

Results BVD and PI evaluation at the 5th minute after the block were found to be effective in evaluating the success of the block. Body temperature increased from the 15th minute, and StO₂ was significantly high at the 30th minute. When compared with other tests, BVD measurement was found to be more effective in evaluating the success of the block (table 1).

Abstract EP141 Table 1 Comparison Of Perfusion Index, Tissue Oxygen Saturation, Body Temperature and Brachial Vein Diameter Parameters at Measurement Times

	Zaman							Test Statistics ^{z†}		
	t0	t5	t10	t15	t20	t25	t30	Test Value	P	η ²
Perfusion Index										
Mean±SD	3,16±2,26 _a	5,00±2,31 _b	6,92±9,75 _a	5,74±2,36 _b	5,78±2,35 _b	5,83±2,22 _b	5,72±2,18 _b	15,379	<0,001	0,653
M (min-max)	2,5 (0,4-9,1)	4,5 (1,4-11)	5,4 (1,2-7,6)	5,3 (1,9-15)	5,3 (1-14)	5,3 (2,2-14)	5,2 (1,7-13)			
NIRS										
Mean±SD	69,65±7,03 _a	68,98±8,44 _a	69,80±9,26 _{ab}	70,65±9,20 _{ab}	70,58±9,55 _{ab}	70,95±9,47 _{ab}	71,2±9,49 _b	3,348	0,008 *	0,291
M (min-max)	70 (51-85)	69 (47-87)	70 (44-90)	71 (47-88)	71 (50-89)	71 (48-87)	72 (49-90)			
Temperature										
Mean±SD	36,37±0,29 _{ab}	36,32±0,40 _a	36,43±0,27 _{ab}	36,50±0,25 _{bc}	36,49±0,24 _{bc}	36,52±0,30 _{bc}	36,56±0,31 _c	3,590	0,005 *	0,305
M (min-max)	36,4 (36,37,5)	36,4 (33,9-36,7)	36,3 (35,4-36,9)	36,5 (36,37,2)	36,5 (36,37,1)	36,5 (36,1-37,2)	36,5 (36,37,4)			
Brachial vein Diameter										
Mean±SD	15,01±4,25 _a	16,57±4,27 _b	17,04±4,49 _{bc}	17,96±4,37 _{cd}	18,63±5,12 _{de}	19,22±4,93 _e	19,59±4,91 _e	22,936	<0,001	0,741
M (min-max)	15 (6-24)	16 (6-25)	17 (6-28)	18 (7-31)	19 (9-35)	19 (9-33)	20 (9-32)			

* p<0.05; †: Repeated measures ANOVA (F). Summary statistics are given as mean ± standard deviation and Median (minimum, maximum) value. a-b-c-d-e: Different letters or letter combinations on the same line represent statistically significant difference (p<0.05).

Conclusions The results suggest that BVD and PI evaluation can provide objective and reliable information on the success of infraclavicular block in a short time. These methods may improve the accuracy of block success evaluation and help clinicians make more informed decisions.

EP141 OVERLOOKED AND UNDER-BLOCKED: THE DISPARITY IN THE PROVISION OF REGIONAL ANALGESIA FOR WOMEN FOLLOWING CAESAREAN SECTION

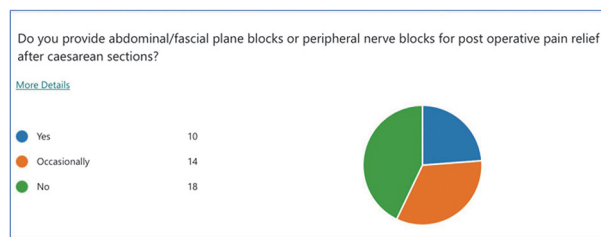
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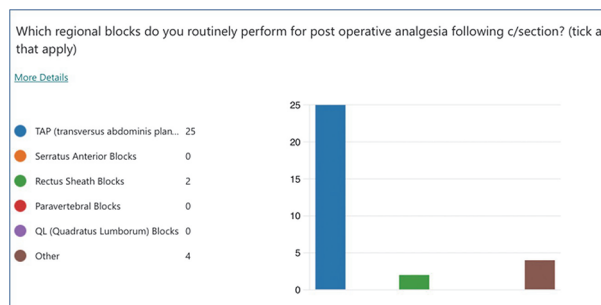
Background and Aims Caesarean section (CS) is the most performed operation worldwide. In the UK 1 in 4 women give birth by CS. Poorly managed acute pain following CS can complicate recovery, new-born care, prolong hospital stay and risk the development of chronic post-surgical pain. The PROSPECT working group advises regional techniques post-operatively. A recent update highlights ilioinguinal-iliohypogastric blocks in reducing postoperative opioid consumption and advocates erector spinae plane blocks following CS, as an alternative to neuraxial opioids. We investigated the current practice in our trust to ascertain what pain relief is given to women following such surgery.

Methods A survey was sent to all anaesthetist in our department. Data was collected anonymously with reference to their current practice. A literature search using Medline and Embase to explore the efficacy of regional blocks post CS provided a framework for best practice.

Results 39 relevant studies investigating fascial plane or peripheral nerve blocks for post CS pain were considered. Literature was unified in the beneficial outcomes of regional blocks in this patient group particularly in absence of neuraxial opioids, however 42% of anaesthetists surveyed at our trust never provide them.



Abstract EP141 Figure 1 Showing anaesthetists surveyed, who routinely work in Maternity at Bucks NHS Trust and prevalence of regional blocks provided post-operatively



Abstract EP141 Figure 2 Snapshot of 'which block' is provided in the instances of regional analgesia being offered to this cohort of patients in maternity