471832 - POST- OPERATIVE VASO VAGAL SYNCOPE: IS INTRATHECAL ANESTHESIA THE CAUSE?

Tania Di Renna, MD, John Penning, MD, FRCP, Gregory Bryson, MD
University of Ottawa, Ottawa, ON, Canada

Introduction: A multimodal analgesia protocol (MMAP) for prostatectomy patients, involving pre operative oral NSAIDs, a spinal anesthetic with 4-6 mls of 0.5% bupivacaine with 200 - 400 ug intrathecal morphine combined with a general anesthetic, has been followed for several years at our institution. Post operatively patients receive NSAIDs for 5 days, straight Tylenol and prn oral morphine. Nurses report that frank vaso vagal syncope or presyncopal symptoms have been a common occurrence in prostatectomy patients since this MMAP has been in effect. The purpose of our study was to determine if the intrathecal anesthetic is contributing to the post operative syncope or presyncope symptoms.

Methods: Following ethics board approval, we identified 148 consecutive patients undergoing radical prostatectomy who received intrathecal anesthesia between 2003-2005. As a control population we also identified 31 patients who underwent radical prostatectomy and did not receive an intrathecal anesthetic. The data collected included patients' demographics, duration of surgery, intraoperative blood loss, intravenous fluids, dose of intrathecal anesthetic and level of block in the PACU. Our outcome measures were the number of syncopal or presyncopal events, peak VAS scores recorded on post operative day one and length of stay. We analyzed our data with one way ANOVA and post hoc tests.

Results: Of the 148 prostatectomy patients who received intrathecal anesthetics, 43 were found to have either presyncopal symptoms or frank syncope the morning of the first post operative day. In contrast only 1 of the 31 prostatectomy patients who did not receive intrathecal analgesia had a presyncopal episode. The difference between age, ASA scores, blood loss, intraoperative intravenous fluids and length of stay, when compared between the two groups, was not statistically significant. There was, however, a significant difference between intraoperative vasopressor use, syncopal events and post operative pain scores.

Discussion: Our study indicates that intrathecal anesthetics in prostatectomy patients, although a superior modality for pain control, may contribute to post operative syncope or presyncope. We propose that a residual sympathetic blockade from large doses of intrathecal bupivacaine may be key producing in (pre)syncope.

References: Preemptive Epidural Analgesia and Recovery From Radical Prostatectomy A Randomized Controlled Trial Allan Gottschalk et al., JAMA. 1998;279:1076-1082.

Results

Parameter	Spinal + GA	GA only	P value
N	148	31	
Age	61 +/- 6.5	60 +/- 6.5	0.56
Duration of OR (hrs)	4.15 +/- 0.4	3.8 +/- 0.4	0.10
Estimated Blood Loss (mL)	730 +/- 469	760 +/- 516	0.14
Crystalloid (mL)	3324 +/- 1014	3200 +/- 610	0.5
Colloid	476 +/- 373	375 +/- 279	0.2
Phenylephrine infusion (%)	34	0	0.00
Total Events (%)	28	3	0.00
Syncope	9	0	
Presyncope	19	3	
Decrease in Hemoglobin (g/L)	40 +/- 8.2	41 +/- 10	0.44
Highest VAPS @ POD 1	2 +/- 1	4 +/- 3	0.00
24 IV Morphine consumption (mg)	2.5 +/- 4	10 +/- 4	0.00
Length of Stay (days)	4 +/- 2	4 +/- 1	0.95