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Title: HOW DO POSTOPERATIVE NURSES FEEL ABOUT REGIONAL ANESTHESIA?

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Introduction

Anesthesiologists are known to have a preference for regional anesthesia.[1] Patients who have undergone similar procedures under both regional and general anesthesia also strongly prefer regional blocks.[2] Aside from the patient, post-operative nurses have the best first-hand knowledge of how patients fare following surgery. We surveyed several groups of postoperative nurses to determine their impressions of regional versus general anesthesia.

Method

Three separate groups of postoperative nurses were asked to complete a survey. They were instructed to express their opinions based on their personal experience in the care of postoperative patients. Each question was answered on a scale of 1 to 5: 1=regional is much worse, 3=regional is the same, and 5=regional is much better than general anesthesia. Recovery room nurses completed the survey based on the immediate postoperative period. Orthopaedic floor nurses responded for the day of surgery and again for the first postoperative day.

Results

Fifteen surveys were received from recovery room nurses in a free-standing ambulatory care center (outpatient), 20 from the recovery room nurses of the main hospital (recovery room), and 56 from the orthopaedic floor nurses (immediate postop and 24 hr postop). Years of experience ranged from 6-10 yr average in outpatient to 2-5 yr average in recovery room and ortho nurses. Eighty-one of 91 nurses stated they would prefer regional anesthesia for themselves, a friend or relative. The scores on individual questions were:

	Outpt	Rec Room	Immed Postop	24hr Postop
General course	4.9	4.1	4.2	4.1
Postop pain	4.5	4.4	3.6	3.4
Level of consciousness	4.9	4.5	4.5	4.3
Respiratory efforts	4.9	4.6	4.2	4.4
CV stability	4.3	3.6	3.6	3.8
Appetite	4.7	4.1	4.6	4.3
Ability to eat	4.7	4.1	4.6	4.3
Ability to void (spinal epidural)	2.1	2.1	2.6	3.0
Ability to void (peripheral block)	3.8	3.7	3.7	3.7
Ambulation	4.4	3.3	3.8	3.8

Discussion

Nurses caring for postoperative patients strongly prefer regional anesthesia. They felt that regional anesthesia patients had superior postoperative course in every area surveyed except in the ability to void after a spinal or epidural. The question on voiding was the only one that distinguished spinal and epidural from peripheral nerve blocks. Perhaps if this distinction was made on the question directed at postop pain, the orthopaedic nurses might have noted a difference between the two types of regional anesthesia, since the spinals usually are almost completely resolved by the time the patients return to the nursing floors.

References
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2) Anesth Analg 72:S295, 1991

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TITLE: PHARMACOKINETICS OF INTERPLEURAL BUPIVACAINE IN PLASMA AND LUNG LYMPH

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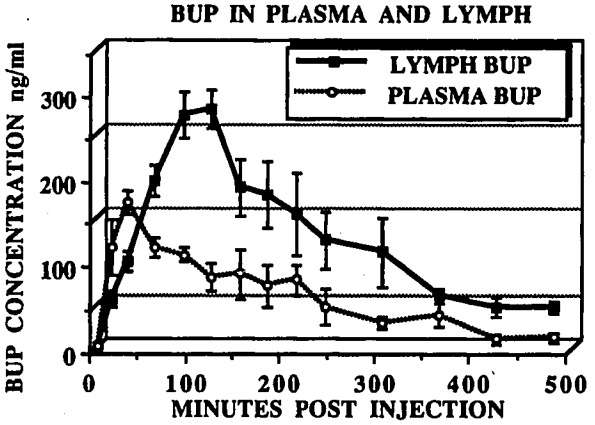
INTRODUCTION: Interpleural bupivacaine (bup) administration produces prolonged (8-10 hours) analgesia in humans with postoperative pain following thoracic surgery.[1] To our knowledge the role of the lung lymphatic system in the absorption and pharmacokinetics of interpleural bup has not been studied. Therefore, we measured the concentration of bup in lung lymph and blood plasma in sheep following interpleural administration.

METHODS: Six adult sheep were utilized. After induction with halothane, femoral artery and vein, Swan-Ganz and left atrial catheters were placed. The caudal mediastinal lymph node was cannulated to collect lung lymph.[2] An epidural catheter was placed into the right pleural space. After recovery, 20 ml of 0.5% bup. was injected over a 1 minute period. Samples were collected and analyzed by GLC.[3]

RESULTS: Following interpleural injection of bup, the times to peak plasma and lung lymph concentration were 30 min and 120 min, respectively (Fig). The peak concentration in lymph was 277 ng/ml and in plasma was 167 ng/ml. Plasma concentration of bup diminished to low levels in 3 hours, but the concentration of bup in lymph remained elevated over 4 hours. The hemodynamics of the sheep were stable during the 8-hour study period.

DISCUSSION: The results of this study indicate that bup is absorbed from the pleural space by the lung lymphatic circulation. In addition, the times to peak concentration of bup in lymph was delayed and the levels remained elevated longer compared to plasma. These findings suggest that lung lymphatic uptake of bup may play a role in producing prolonged postoperative analgesia following interpleural administration.



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2. Staub NC, et al, J. Surg Res 1975; 19:315-320
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