

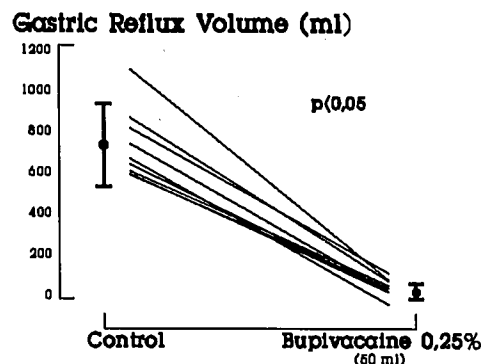
TITLE: CELIAC PLEXUS BLOCK FOR THERAPY OF GASTROINTESTINAL DYSFUNCTIONS IN NEUROSURGICAL ICU PATIENTS.
AUTHORS: C. Weinstabl, M.D; P. Porges, M.D; B. Plainer, M.D; A. Werba, M.D; C.K. Spiss M.D.
AFFILIATION: Dept. of Anesthesia and General Intensive Care, Univ. of Vienna, A-1090 Vienna, Austria.

Celiac plexus block (CPB) is a well established method for the treatment of pancreatitis and cancer pain. In this study we used CPB as last step of therapy in neurosurgical ICU patients, when oral or intravenous drug therapy failed in treating gastrointestinal dysfunctions.

Methods: CPB was performed in 8 patients with either head injury or intracerebral hemorrhage when daily gastric reflux volume exceeded 600 ml during three consecutive days and/or continuous singultus occurred. CPB was accomplished with a modified Moore technique using 50 ml bupivacaine 0,25%. Needle positioning was conducted under continuous radiological control. The gastric reflux volumes and singultus frequencies of three preceding and three consecutive days following CPB were pooled. Statistical significances were calculated by paired t-analysis. A p value < 0.05 was regarded as significant.

Results: Gastric reflux volume decreased significantly following CPB from 750 ± 70 ml to 22 ± 8 ml (mean \pm S.E.M.), (fig). Continuous singultus disappeared in all cases, except one patient showed a ten minutes lasting singultus on the first day following CPB.

Discussion: CPB is an effective therapeutic tool for the treatment of otherwise intractable gastrointestinal dysfunctions in neurosurgical ICU patients. The responses of gastric reflux volume and singultus frequency to CPB suggest a mechanism operative at parasympathetic sites at the celiac plexus.



A844

TITLE: EFFECTS OF ROPIVACAINE, BUPIVACAINE, AND LIDOCAINE UPON THE ISOLATED SPONTANEOUSLY BEATING RABBIT HEART
AUTHORS: H.S. Feldman, DSc, M. Pitkanen, MD, G.R. Arthur, PhD, T. Manning, B.G. Covino, MD
AFFILIATION: Dept. of Anesthesia Harvard Medical School, Boston, MA 02115

The aim of this study was to compare the direct effects of Ropivacaine (R), Bupivacaine (B), and Lidocaine (L) upon spontaneous rate, contractile force, arrhythmogenicity and the ability to electrically pace rabbit Langendorff heart preparations. Experiments were conducted in a blinded, random fashion.

After perfusion with Krebs-Henseleit solution and equilibration, the heart was exposed to one of the following drug concentrations (N = 6).

Ropivacaine - 1.0, 6.0, 13.0 μ g/ml

Bupivacaine - 1.0, 6.0, 13.0 μ g/ml

Lidocaine - 6.0, 20.0, 40.0 μ g/ml

Hearts were exposed to drug for 30 minutes or until 75% depression of left ventricular pressure occurred.

B produced a significantly greater

incidence of ventricular arrhythmias and myocardial depression than either R or L. High dose B caused 83% of the preparations to become resistant to electrical pacing.

Percent Occurrence
Ventricular Unable 75% ↓
Arrhythm to Pace LV Pressure

μ g/ml			
B 1	0	0	0
B 6	100*	17	83*
B 13	100*	83*	100*
R 1	0	0	0
R 6	17	0	0
R 13	33	0	17
L 6	0	0	0
L 20	0	0	0
L 40	0	0	0

[*—significantly (p<0.05) different than similar doses of R and L]

The current study supports previous reports that B is more arrhythmogenic than R or L. Additionally B appears to have greater negative inotropic effects upon the ventricular myocardium than does R or L.

References

- Feldman HS, Arthur GR, Covino BG. Anesth. Analg. 1989; 69:794-801.