phine levels, obtained from acute epidural and intravenous models, have a specific relationship with levels of sedation in the chronic model is an error.[2] I know of no data that correlate CSF and blood morphine levels with the level of consciousness in these chronic cancer patients. Therefore, the pharmacodynamics of the chronic narcotic-accustomed cancer patient support my previous conclusions.[3,4]

The third concern was regarding the new catheter position effecting the degree of relief by catheter tip position. A study of epidurograms will indicate that a three to five segment level of difference in catheter tip location makes no difference in the spread of dye in the space unless there is an area of epidural space obstruction.[5] In this case, no obstruction was seen, and the post-permanent catheter epidurogram was normal, having the same area of distribution as the temporary catheter epidurogram.

Table 1 of our paper points out the cost and preservative content of the many generic morphine products currently on the market.[1] Using the non phenol-formaldehyde containing morphine preparations will result as cost savings to the patient without the potential risk of a preservative-induced epidural space injury. We hope that, in the future, there will be a larger number of inexpensive non-preservative-containing narcotics of higher concentrations, available on the market for chronic epidural analgesia.

STUART L. DU PEN, M.D.
Department of Anesthesiology
Pain Consultation Service
Swedish Hospital Medical Center
Seattle, Washington 98104

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Muscle Atrophy following Nerve Block Therapy

To the Editor:—Myotoxicity secondary to intramuscular injection of local anesthetics has been reported in laboratory animals and has been associated with complete regeneration of the damaged muscle fibers. This phenomenon has not been commonly described in human subjects. We present a 34-yr-old caucasian female who had chronic periscapular pain probably due to myofascial pain syndrome. Among other modalities used for pain management, the patient received a trigger point injection with 6 ml 0.25% bupivacaine and developed trapezius muscle atrophy as evidenced by significant depression in the superior aspect of the right periscapular area. Two months later, the "walnut-sized" depression disappeared with almost complete regeneration of the atrophied muscle. This relatively benign and reversible complication appears to occur more frequently than reported and should be considered, particularly after some nerve blocks.

WINSTON C. V. PARRIS, M.D.
Associate Professor of Anesthesiology

WOLF D. DETTBARN, M.D.
Professor of Pharmacology
Vanderbilt University Medical Center
Nashville, Tennessee 37232

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Positioning the Endotracheal Tube in an Infant with Tracheoesophageal Fistula

To the Editor:—Transesophageal fistula (TEF) and esophageal atresia are relatively common congenital anomalies requiring surgical repair. Approximately 80–90% of TEFs consist of a blind upper esophageal pouch and a distal tracheal fistula to the lower part of the esophagus.[1]

The anesthetic management of patients with this condition has been extensively reviewed.[1] One problem for the anesthesiologist is to correctly locate the endotracheal tube (ETT) tip distal to the origin of the fistula but proximal to the carina. Appropriate positioning results in minimal gastric distension, minimal loss of tidal volume, and minimal environmental pollution when ventilation is assisted. Recently, Baraka *et al.*[2] described two newborns safely anesthetized with selective bronchial intubation who underwent surgical repair of TEF. Unfortunately, these authors reported only one arterial blood gas and no pulse oximetry readings during the period of one-lung ventilation, raising concern as to the safety of their technique. Furthermore, left-sided endobronchial intubation in the newborn is technically very difficult, while a right-sided intubation is frequently associated with right upper lobe collapse due to the short distance between the carina and the origin of the right upper lobe bronchus.

Two techniques have been described for placing the ETT in the correct location. The first requires insertion of a gastrostomy tube under a water seal.[3] When positive pressure is applied to the ETT, bubbles will be seen emerging from the gastrostomy tube if the ETT tip is proximal to the fistula. This method is slow, requires an assistant, and increases the risk of infection and hypothermia due to spillage of the fluid used. A second technique deliberately places the ETT tip distal to the carina and into one of the mainstem bronchi. Subsequently, the ETT is withdrawn to the point where bilateral breath sounds are heard, thereby locating the ETT tip just proximal to the carina.[4] With this technique the patient is at risk of bronchospasm unless deep levels of anesthesia are maintained during the procedure.

We report a simple technique that we have found useful for confirming the position of the ETT in an infant with TEF who had a gastrostomy tube in place. The method involves loosely connecting the gastrostomy tube to the sampling catheter of a side-stream type capnograph or dedicated anesthesia gas analyzer, such as the Datex/Puritan Bennett PB 254 (Puritan Bennett Co., Wilmington, MA). When the ETT tip is proximal to the fistula, the presence of CO_2 and inhaled agents is detected by the analyzer. When the tip is immediately distal to the fistula, no CO_2 or inhaled agents are detectable. Thus, during gentle positive pressure ventilation *via* the ETT, the intermittent analysis of the gases emerging from the gastrostomy tube facilitates the precise location of the ETT. Once the ETT tip is correctly positioned, the ETT is secured in the usual way. In our experience, this technique facilitates the rapid determination of the optimum position for the ETT tip. This is a desirable situation in an infant prone to hypoxia and is reproducible intraoperatively when even small movements of the head may easily displace the ETT proximal to the fistula or into a main stem bronchus.

NATHAN SCHWARTZ, M.D.
Assistant Professor of Anesthesiology and Pediatrics

JAMES B. EISENKRAFT, M.D.
Associate Professor of Anesthesiology

Mount Sinai School of Medicine
Department of Anesthesiology
Box 1010
One Gustave L. Levy Place
New York, New York 10029-6574

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Influence of Anesthetics on Relaxation Times

To the Editor:—Several recent papers and an accompanying editorial, all of which discussed nuclear magnetic resonance (NMR) as a measurement technique,[1–3] did not mention the fact that anesthetics can measurably change the relaxation times of NMR nuclei because they fluidize lipids. The effects of anesthetics on NMR relaxation times are not well understood. It would seem appropriate for anesthesiologists to contemplate the anesthesia-related findings both *in vivo* and *in vitro*.

Several theories and models have been proposed to account for the dissimilarities of relaxation behavior in normal and pathological tissues. Each is fraught with pro and con arguments. Recently, Akber has proposed an alternative approach to explain the enigma of relax-