TITLE: POMS SCORES IN ASSESSMENT OF PREOPERATIVE ANXIETY AND THE EFFECT OF PREMEDICATION

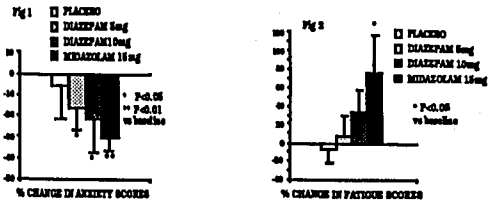
AUTHORS: A-M. Lehtinen, M.D., Ph.D; Pippingsköld K, M.D; Hänninen H, Phil. Lic; Korttila K, M.D, Ph.D

AFFLIATION: Department of Anesthesia, Women's Clinics, Helsinki University Hospital, and Section of Clinical Psychology, Institute of Occupation Health, Helsinki, Finland

Introduction: Many methods have attempted to measure and quantify the effects of premedication on the relief of anxiety. A rating scale technique: Profile of Mood States (POMS) has proved to be useful in assessing acute changes in mood states during stress-producing situations such as public speaking and also when measuring preoperative anxiety.[1] This method has not been previously used in assessment of the effects of premedication on the relief of anxiety, however. Walsh et al.[2] have provided evidence that pre-surgical stress increases the plasma concentration of immunoreactive ß-endorphin (ir ß-E) and ACTH, and that premedication may abolish such increase. The aim of the present study was to confirm this hypothesis by combining the measurement of plasma concentrations of ir ß-E and ACTH with measurements of POMS scores.

Methods: Ninety-five women undergoing induced abortion were randomly premedicated with oral diazepam, 5 or 10 mg, midazolam 15 mg, or intramuscular placebo, 40-60 min before the induction of anesthesia. Prior to premedication and again prior to the procedure, the women completed the questionnaire sheet for POMS, and the plasma samples for ir ß-E and ACTH were taken.

Results: The T-A scores decreased in women receiving 5 and 10 mg diazepam, and in the women premedicated with midazolam15 mg, but not in women treated with placebo (Fig 1). The women receiving midazolam, 15 mg, became more fatigued after premedication (Fig 2). The plasma concentrations of ir ß-E or ACTH did not change from baseline, and no correlation was found between the changes in POMS scores and the plasma concentrations of ir ß-E or ACTH.



Conclusion: We conclude that measurement of POMS T-A scores provides an useful method for assessment of preoperative anxiety and also the effect of premedication in reducing anxiety. The present study did not provide any reliable proof to confirm the hypothesis of relationship between plasma concentrations of ir ß-E or ACTH and preoperative anxiety. Since many factors modulate endorphin and ACTH secretion prior to operation, the measurement of endogenous opiates may be of limited value in assessment of the effects of preanesthetic medication.

References: 1. Anesthesiology 1987: 67: 595-599.
2. Anesthesiology 1987: 66: 402-405.

A192

TITLE: MECHANISM OF HORNER'S SYNDROME RESULTING FROM EPIDURAL, CAUDAL, INTERCOSTAL, INTERPLEURAL AND SYMPATHETIC NERVE BLOCKS

AUTHORS: T. R. Shantha, M.D., Ph.D.,

AFFILIATION: Georgia Baptist Med. Center, Dept. of Anesthesiology, 300 Boulevard, Atlanta, Ga. 30312. Visiting Prof., J.J.M. Medical College, Davanagere, 477004, Karnataka, India

Introduction: There are many reported cases of Horner's Syndrome developing after lumbar and caudal, epidural, lumbar sympathetic, intercostal nerve blocks and interpleural blocks (1,2). The following study reveals the possible route of local anesthetic spread responsible for this neurological oddity.

Material: The entire sympathetic chain, its associated ganglions, rami communicans, and their connection to peripheral and central nervous system were studied in various species of animals, including humans and whales. These studies were made using microsurgical instruments, dissection microscope and standard histological methods (3).

Results: The entire sympathetic chain is covered by scanty epineurium and perineurium. Below the perineurium is continuous layers of squamous cells, stacked one on top of another, called perineural epithelium (Fig. 1). These cells become continuous with peripheral nerve perineural epithelium and the leptomeninges of the CNS. There is space between this cellular membraneous covering and the nerve structures.

Discussion: The membranes and BV passing through these membrane conduct local anesthetics (LA) into nerve fasciculi (Fig. 1). These membranes and the spaces they enclose also conduct LA up the sympathetic chain causing Horner's Syndrome.

References:
1. Brit J. Anaesth. 47:1342, 1975.
2. ANESTHESIOLOGY. 37:543-557, 1972; 68:613, 1988.
3. Zeitschrift fur Zellforschung 61:742-753, 1964.