TITLE: ROFECOXIB DECREASES SHOULDER PAIN AFTER THORACOTOMY

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INTRODUCTION: Postoperative epidural analgesia has long been a standard of thoracic anesthesia care (1). Patient-controlled epidural analgesia (PCEA) has been employed to treat post-thoracotomy pain, with impressive results except for ipsilateral shoulder pain present in 75-80% of patients (2). Ketorolac is useful for the therapy of this pain but may cause hemorrhage. The selective COX-2 inhibitor, rofecoxib, does not predispose to bleeding; hence this trial was designed to investigate the clinical utility of routine perioperative rofecoxib.

METHODS: After IRB approval and informed consent, 46 ASA 2-3 patients (ages 18-64), undergoing unilateral thoracotomy, were enrolled in this double blind, randomized controlled trial. All patients had general anesthetics with thoracic PCEA for postoperative pain control and received perioperative subcutaneous heparin for the prophylaxis of DVT. Each patient was randomly assigned to receive either oral placebo or rofecoxib prior to surgery and again on postoperative day 1. A multiphasic postoperative pain inventory (MPPI), with an additional question relating to shoulder pain, was administered later on postoperative day 1. MPPI scores were compared between the placebo and rofecoxib groups by Wilcoxon-Mann-Whitney tests and visually using histograms.

RESULTS: MPPI scores obtained for 22 placebo and 20 rofecoxib patients. MPPI scores for the patients given rofecoxib were more variable and were lower on average, with median = 18.0 (range 1.0–42.0) for rofecoxib vs. 22.5 (range 7.0–40.0) for placebo, but the difference was not statistically significant. (P=0.19) Worst shoulder pain scores shown below, were available on 23 placebo and 23 rofecoxib patients, with medians 4.0 (range 0–10.0) for the placebo and 1.0 (range 0–9.0) for the rofecoxib patients (p=0.01).

The withdrawal of rofecoxib from world markets resulted in early termination of this study. The data reported here suggest that, if this study had continued to its planned accrual of 180 subjects, statistical significance may have been reached in each pain score.

DISCUSSION: This study demonstrates that the routine short-term use of rofecoxib was useful to prevent the development of post-thoracotomy shoulder pain, and that other COX-2 inhibitors may be of potential utility.

REFERENCES:

- 1) Anesth 1984; 63:757-64
- 2) Anesth 1993; 78(2):365-8