

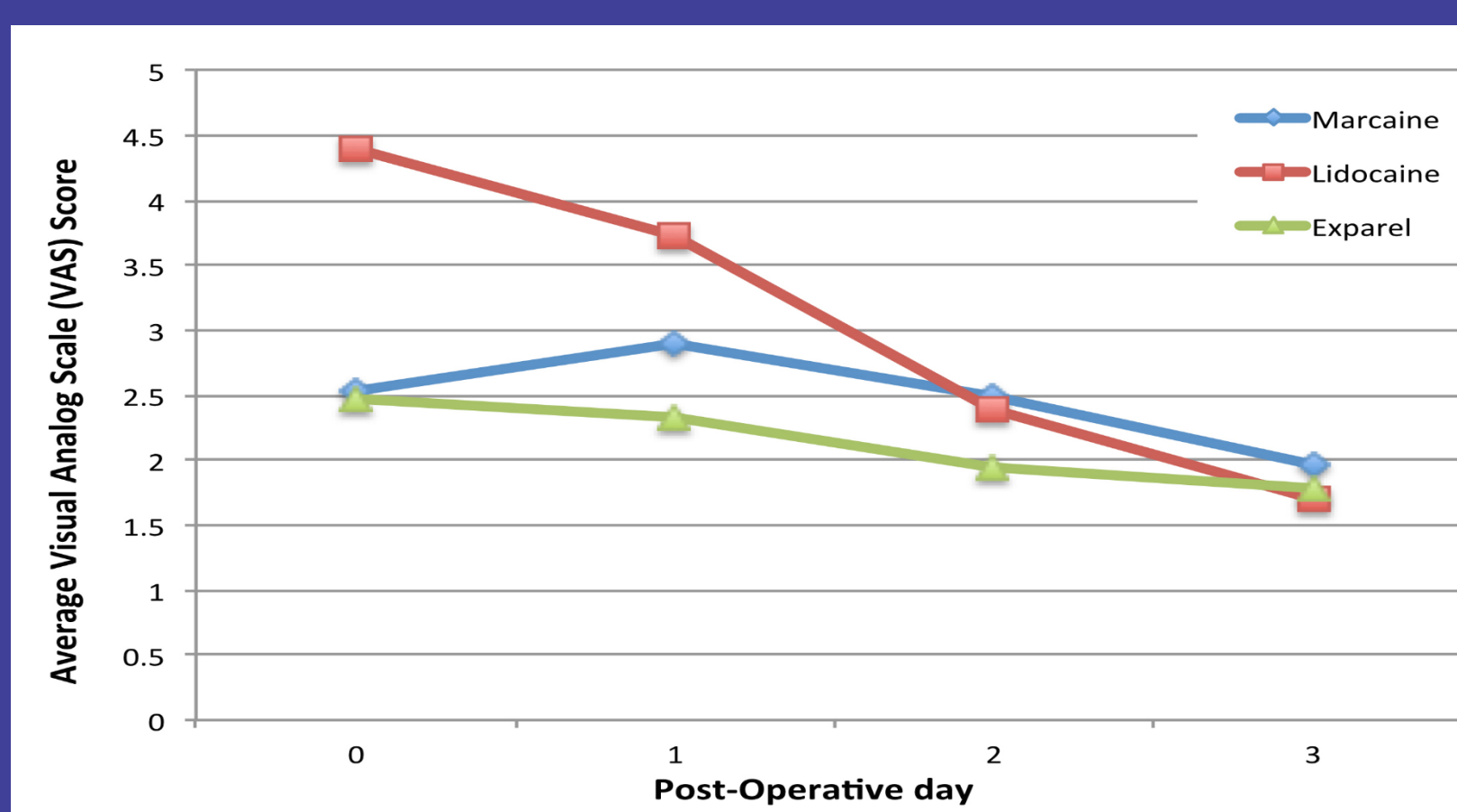
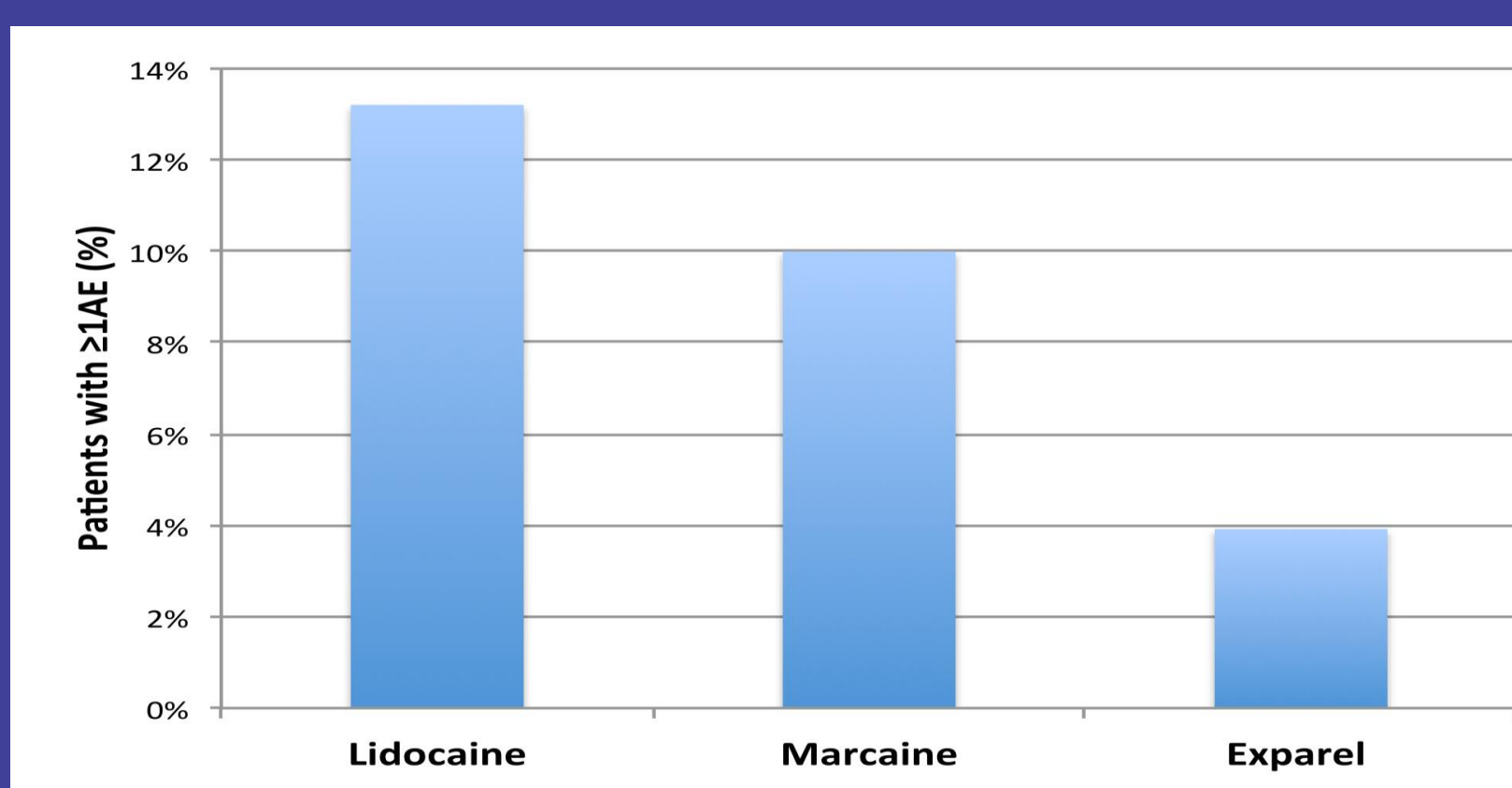
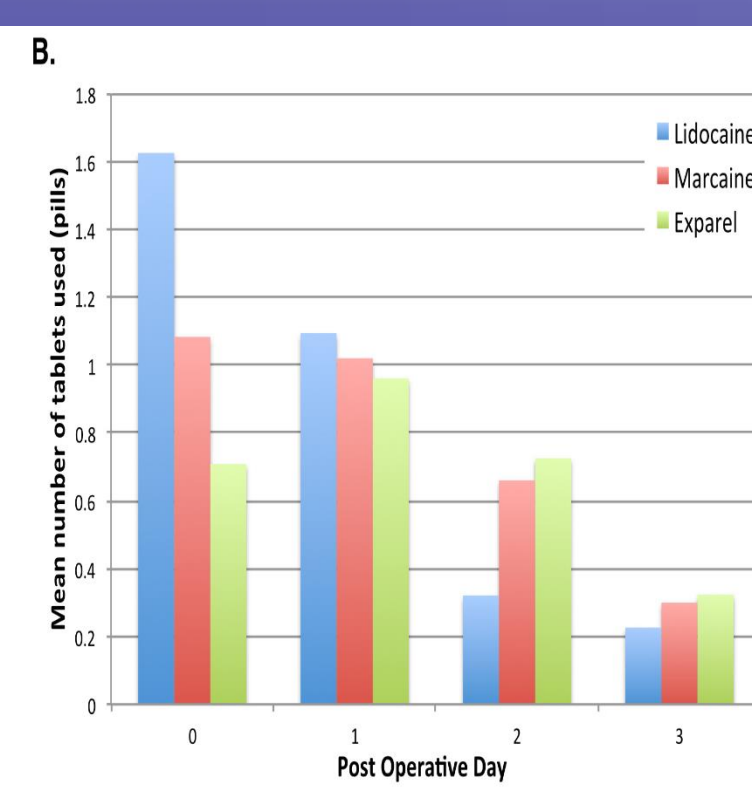
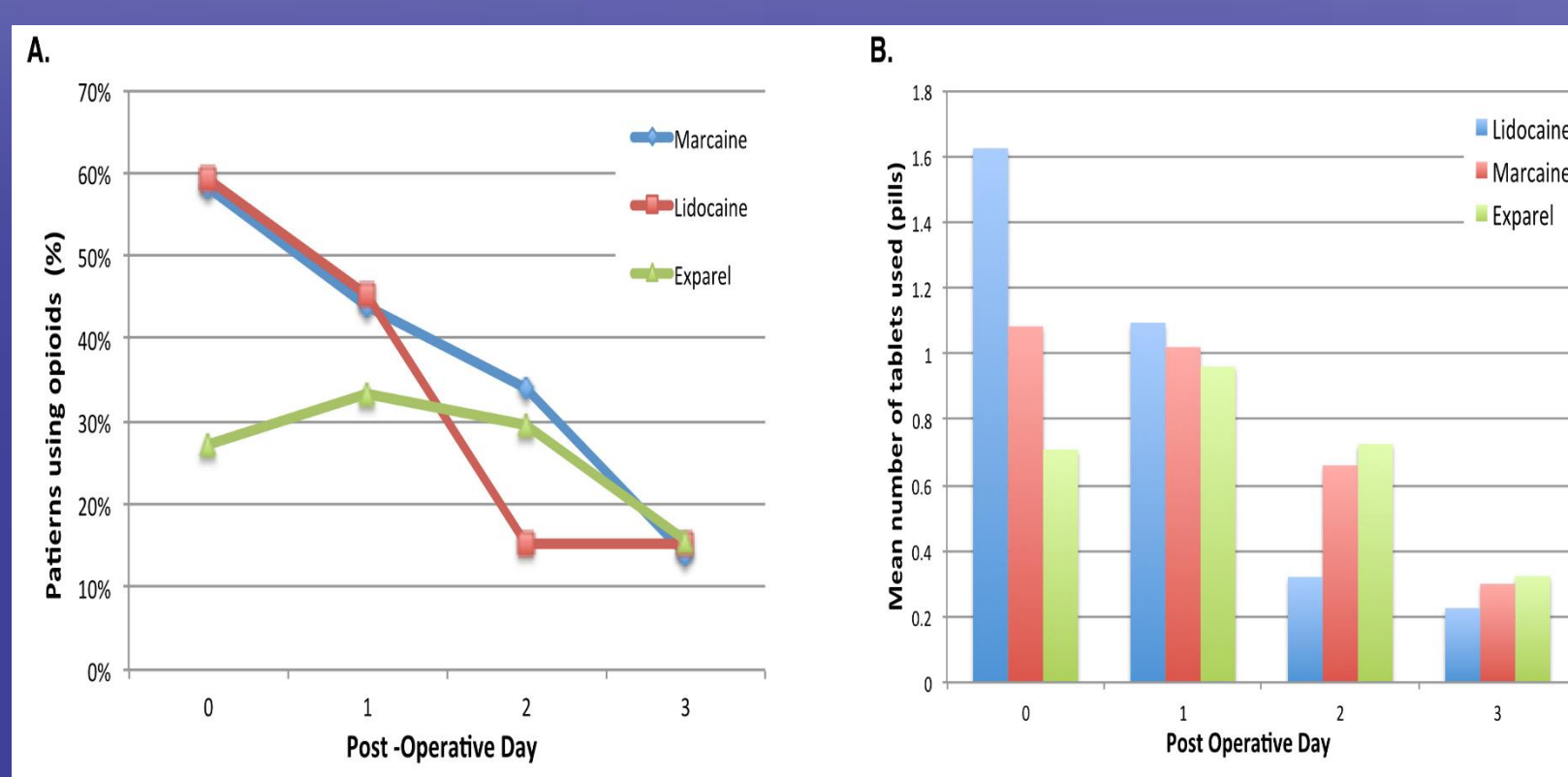
INTRODUCTION

Local anesthetics are routinely used in hand surgery for procedures such as trigger finger releases. Moreover, wide awake hand surgery rely on local anesthetics with epinephrine to facilitate surgery without other anesthetics or tourniquet use. A number of local anesthetics are readily available including but not limited to lidocaine, bupivacaine (Marcaine), and more recently bupivacaine liposome injectable suspension (Exparel). The latter is an extended-release injection designed for single-dose local administration for post-operative pain that has been shown to be superior to placebo in multicenter, randomized, controlled trials in patients undergoing bunionectomy, hernia repair, and total knee arthroplasty. To better understand the efficacy and safety of these agents in hand surgery, we prospectively evaluated the efficacy of these local anesthetics in controlling post-operative pain, opioid usage, and adverse reactions following trigger finger release surgery.

MATERIALS AND METHODS

After obtaining institutional review board approval, all consecutive patients undergoing single digit trigger finger release surgery under local anesthesia without sedation by 7 fellowship-trained orthopaedic hand surgeons were invited. Surgeries were performed with either lidocaine (L), bupivacaine (M), or bupivacaine with post-operative bupivacaine liposome injection (E). Patients were contacted post-operatively on days (POD) 0, 1, 2, and 3 to determine their pain on a visual analog scale (VAS), daily opioid consumption, and any adverse reactions.

TABLES AND FIGURES



RESULTS

A total of 102 patients (M:49, L:39, E:14) were included in the study with only 6 patients lost to follow up for an overall attrition rate of 5.8%. There were 52 women and 50 men, with an average age of 62. All analgesics studied offered adequate pain control resulting in average pain scores of 2-3.8 on Day 0, 2.5-3.4 on Day 1, 1.7-2.5 on Day 2 and 1.3-2.5 on Day 3, without statistical difference.

RESULTS CONT.

Both Marcaine and Exparel followed similar pain control trends in contrast to Lidocaine, which showed relatively higher Day 0 pain scores followed by a steeper decline over Days 1-3. Overall, patients that received Exparel showed a tendency for overall lower pain scores on Day 0-2, and less opioid pain consumption by Day 2-3. Adverse reactions were reported in only 14-17% of the patients with no significant differences between the groups. All reactions reported were mild and included dry mouth, nausea, drowsiness, pruritus and constipation all of which are known side effects and assumed to be most likely related to prescribed opioid use. The percentage of patients that required narcotic medication showed a downward trend from time of surgery but without significant differences between the groups.

DISCUSSION

Trigger finger release surgery results in overall low post-operative pain. All studied local anesthetics provided adequate pain relief with an acceptable adverse reaction profile in our cohort of wide awake hand surgeries. Exparel showed a tendency for overall lower pain scores from Day 0-2, and lower opioid consumption after Day 2.

REFERENCES

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