

# INADEQUATE TREATMENT OF POST-SURGICAL PAIN MAY RESULT IN EXTENDED HOSPITALIZATION PERIOD

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## INTRODUCTION

### Postoperative pain is an consequence:

- ❖ Tissue injury, it could release prostaglandins that cause hypersensitivity, turning any stimulus in pain.<sup>1,2</sup>
- ❖ Inflammatory responses incurred as a result of surgery.<sup>1,2</sup>

The management in operated patients are one of the crucial factors related to physical and psychological alterations.

### The inadequate control of pain may result in<sup>4,5</sup>:

- ❖ Prolong the hospital stay
- ❖ Increased risk of developing chronic pain
- ❖ Increases the risk of postoperative infection (immunosuppression pain unrelieved, slows wound healing, delays recovery, sympathetic activation - predisposes patients with adverse events)
- ❖ Psychological Impact (anxiety and depression)
- ❖ Delay in ambulation (risk of thromboembolic events)

Hence adequate control of pain in renal colic and after surgical procedures could be critical to patient recovery and in reducing the financial burden related to resource use and hospital stay<sup>5</sup>.

## OBJECTIVE

Demonstrate through a retrospective analysis of secondary data, that patients with inadequate treatment of post-surgical appendectomy and colic renal pain may end up having a longer period of hospitalization evaluating the length of hospital stay between groups of patients treated with parecoxibe compared to other nonsteroidal anti-inflammatory drugs (NSAIDs).

## METHODS

A retrospective administrative claims database containing over 18 millions lives from Brazilian private hospitals (ORIZON database), was assessed (from January through June 2014), of patients who underwent a surgical intervention of appendectomy (n = 1,618), and renal colic (n = 6,555) identified by International Codes Disease (N20, N21, N22, N23) and who received one of the nonsteroidal anti-inflammatory drugs (NSAIDs): parecoxibe, tenoxicam, and ketoprofen, ketorolac.

Figure 1. Number of patient per surgical

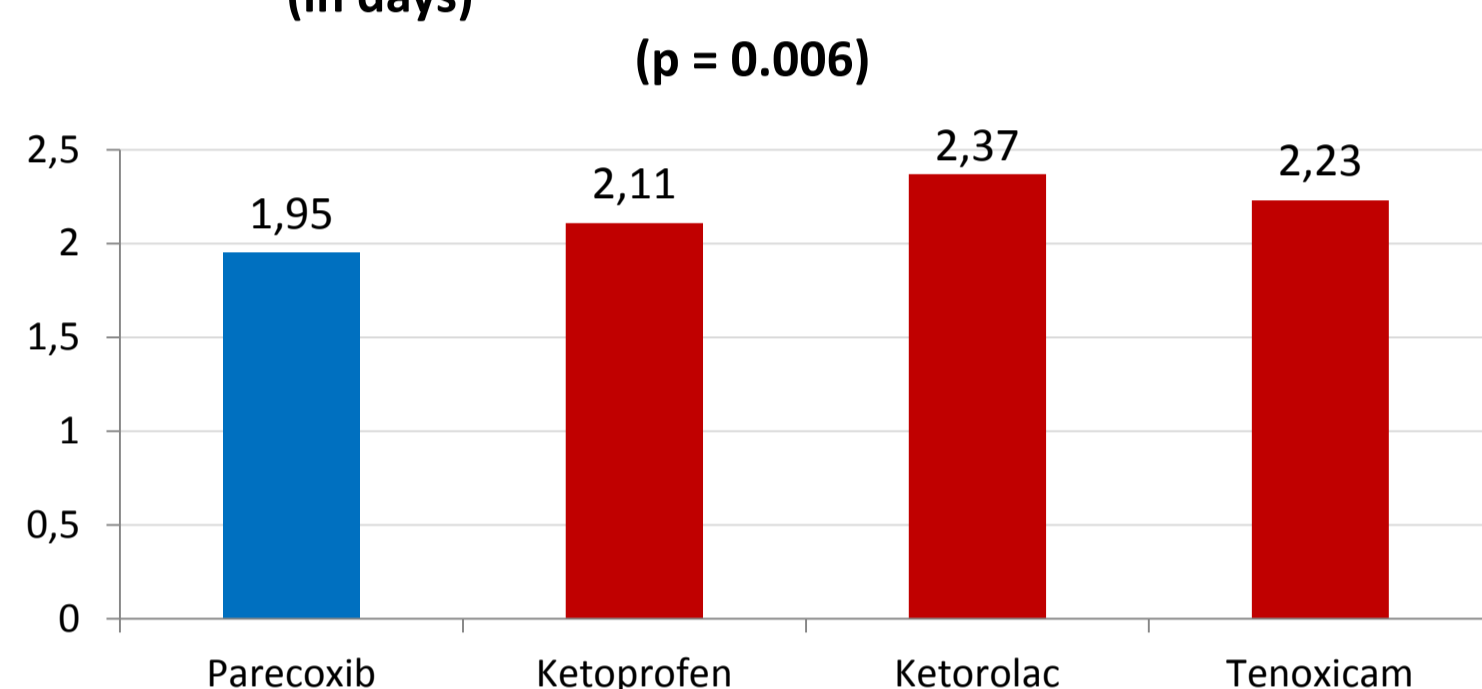


After patient identification, the average period of hospital permanence was assessed by drug group. Median time differences between groups were assessed thru Kruskal-Wallis method (significance level of 5% was adopted, all statistical analysis were perform in R, version 3.1.1).

## RESULTS

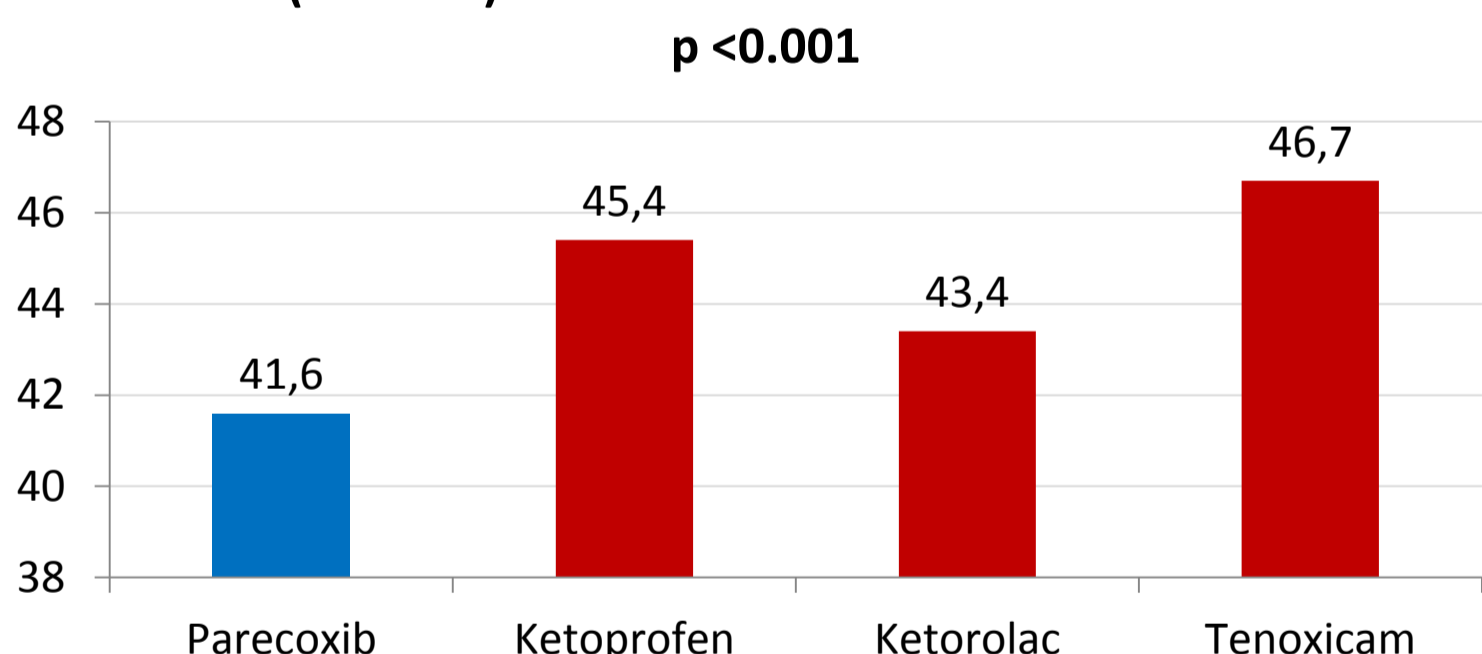
The analysis from medical bills of those health insurance beneficiaries in post-appendectomy group during the period showed that the average length of stay for the management of pain with parecoxibe was 1.95 days compared to 2.20 days with other NSAIDs (Figure 1). The Kruskal-Wallis test showed a significant difference between the group treated with parecoxibe and the group of other treatments (p = 0.006), rejecting the hypothesis of equality between the groups.

Figure 2 – Length of Hospitalization for Appendectomy by Drugs (in days)



For the management of acute renal colic, data analysis showed that there was a significant difference between the group treated with parecoxibe compared to the group of other treatments to the length of stay greater than 24 hours between parecoxibe and other NSAIDs (41.6 hours vs. 45.5 hours, respectively; p <0.001; Figure 2). The average time of general hospitalization was 25.2 hours compared to 32.9 hours parecoxibe with other drugs

Figure 3 – Length of Hospitalization for Renal Colic by Drugs (in hours)



## CONCLUSIONS

The pain is considered the 5o vital sign due to the importance in the clinical evolution, quality care and outcome disease. The period of hospital permanence after surgery or during treatment of a renal colic or nefretic syndrome is the utmost importance and implies in hospital costs. The longer patients stay in hospital higher of complication clinical, delaying treatment and some cases to increase mortality. The adequate treatment may be reduced the hospital stay and could improve the assistance and financial results.

## REFERENCES

1. Barbosa MH, NF De Araujo, JAJ Da Silva, Correa TB, TM Moreira, Andrade v. Pain intensity and pain relief assessment in Patients post-operative orthopedic surgery. Esc Anna Nery - Rev Enferm. 2014; 18 (1): 143-7.
2. Rawal N, Langford RM. Current practices for postoperative pain management in Europe and the potential role of the fentanyl HCl iontophoretic transdermal system. Eur J Anaesthesiol. 2007; 24 (4): 299-308.
3. Strassels S, Chen C, D. Carr Postoperative analgesia: economics, resource use, and patient satisfaction in an urban teaching hospital. Anesth Analg. 2002; 94: 130-7.
4. Oderda G. Challenges in the management of acute postsurgical pain. Pharmacotherapy. 2012; 32 (9): 65-115.
5. Oderda G. Pharmacotherapy. 2012;32(9 Suppl):65-115.