Dear Editor

Shoulder surgery needs analgesics for several days. Instead of continuous interscalenic block, we developed a standardized oral analgesic protocol. Before December 2013, analgesia for arthroscopic shoulder surgery was not protocolized (NP) and used combined paracetamol, NSAID’s and opiate. On January 2015, a standardized protocol (SP) was implemented with from postoperative 6th hour, paracetamol 1 g × 4 a day, ketoprofen 150 mg, 20 mg slow release morphine at 10th hour then rapid release morphine (10 mg × 4/day) when Visual Analogic Scale (VAS) ≥ 3. After ethic comity approval, we selected 154 files of patients operated for a rotator cuff repair: 77 operated from July 2012 to August 2013 (group NP) and 77 from January to October 2014 (group SP). Patients received written information and Institution Ethic Committee approved the study. All patients were operated under general anesthesia using remifentanil combined with an ultrasound single-shot interscalenic block with ropivacaine (3 mg/kg). Data included age, sex, duration of hospitalisation, analgesic treatments, adverse events (AE) graded from 1 to 2, VAS (0–10) at rest, morphine consumption and nurse adherence to protocol. Comparison between groups used parametric and non parametric Wilcoxon (p = 0.0129) and Student tests (p = 0.0119). Differences between groups were considered statistically significant if the significance levels were less than 0.05. The whole patients were hospitalized for an average of 2 days. On awakening, most patients did not complain of pain (VAS = 0 for 85.7% patients in NP group versus 93.5% patients in SP group; p value > 0.05). The primary endpoint aimed to demonstrate an improvement in postoperative pain by comparing maximum pain intensity during the first postoperative 48 h from the PACU. Descriptive statistics are detailed in Table 1: maximal pain at rest is significantly lower in the SP group (4.82 ± 2.33) than in the NP group (5.81 ± 2.45; p = 0.0119). Difference of 1 point between groups is clinically relevant. Maximal pain appears 3 h later in the SP group than in the NP group. Due to systematic morphine in SP arm, AE were at 60.7% versus 39% in NP arm. Adherence to protocol by caregivers appears good: paracetamol 100%, morphine 93.5% and NSAID’s 67.5%, respectively.

Interest of clinical audit in acute pain services has already been underlined and education delivered to nurses is crucial to improve practice and patient outcomes. A standardized and dedicated protocol is effective, patients are less painful and maximal pain appears later. In a large study including 1083 patients in similar surgery edited recently by Gerbershagen et al. the worst rate scale was around 5 on first postoperative day: the main difference with our study is related to a larger cohort of patients but operated in 68 hospitals with poor information relative to pain treatment. Authors concluded that many patients experience high postoperative pain intensities and « surgeries involving small incisions require additional vigilance ». Administration of 20 mg morphine (Skéan®) in our Standardized Protocol did not reduce the demands of morphine but it seems improving pain and thus the quality of patient care. Authors have recommended continuous block especially in such case but as observed in a French national survey, regional blocks remain underused. Multimodal analgesia and customized protocol dedicated to elective surgery have to be recommended. Our study supports need for evaluating quality, compliance and morbidity of care.

Conflicts of interest

The authors declare to have none conflict of interest relative to the present study.

References


Table 1
Onset of maximal VAS in hours.

<table>
<thead>
<tr>
<th>Arm</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>Median</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>No protocol</td>
<td>15.63</td>
<td>9.65</td>
<td>1</td>
<td>43</td>
<td>14</td>
<td>73</td>
</tr>
<tr>
<td>Protocol</td>
<td>18.78</td>
<td>10.32</td>
<td>0.5</td>
<td>39</td>
<td>16</td>
<td>70</td>
</tr>
</tbody>
</table>

S. Braque
Anesthesia and Intensive Care Centre Hospitalier Privé
Saint-Grégoire, 35760 Saint-Grégoire, France

Correspondence

Multimodal oral analgesic protocol after cuff rotator arthroscopic surgery: A retrospective comparative study
P. Collin
Orthopaedics and Shoulder Unit,
Centre Hospitalier Privé Saint-Grégoire,
35760 Saint-Grégoire,
France

A.-L. Serandour
SLB Pharma, 35000 Rennes,
France

M.E. Gentili
Anaesthesia and Intensive Care Centre Hospitalier Privé
Saint-Grégoire, 35760 Saint-Grégoire, France

* Corresponding author. Fax +33 2 99 23 33 02.
E-mail address: marc.e.gentili@orange.fr (M.E. Gentili).

4 February 2017