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Effectiveness of a clinical guide for the treatment of postoperative pain in a major ambulatory surgery unit

Ma Asunción Martín López [a,*], Gabriel Ollé Fortuny [a], Fidel Oferil Riera [a], Luis Hidalgo Grau [b], Miquel Prats Maeso [b]

[a] *Department of Anaesthetics, Consorci Sanitari de Mataró, C. Cirera s/n, 08304 Mataró, Barcelona, Spain*
[b] *Department of Surgery, Consorci Sanitari de Mataró, Barcelona, Spain*

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Abstract

A retrospective study to evaluate a clinical guide for the treatment of postoperative pain in our One Day Surgery Unit (ODSU) is presented. A total of 2783 patients, treated during 1 year, were studied. Postoperative pain was evaluated 24 h after surgery by phone-call using a visual analogue scale (VAS) and a verbal response scale (VRS). Results were analysed by groups of analgesia and pain scale values. Admissions due to insufficient analgesia were also evaluated. Mean values obtained in all analgesic groups in relation to the VAS were lower than 2.5. It was found that 86% of patients presented a value of VAS < 3, while 84.6% had a VRS value 2. Only two patients were admitted for uncontrolled postoperative pain. The level of postoperative analgesia in our patients was satisfactory. Despite this continuous evaluation of the clinical guides for the treatment of postoperative pain, the use of new powerful analgesic drugs is necessary because the surgical complexity in ODSU is increasing and patients with associated diseases are increasingly accepted.

Keywords: Postoperative analgesia; Ambulatory surgery; Visual analogue scale; Verbal response scale

1. Introduction

The existence of a clinical guide for the treatment of postoperative pain was considered essential since the inception of our One Day Surgery Unit (ODSU). Following the criteria of Chung [1] and Beauregard [2], the clinical guide for the treatment of postoperative pain was reviewed. Therapeutic groups were modified according to surgical procedures in order to avoid clinical variability, to evaluate the effectiveness of the clinical guide itself and to modify each therapeutic group if necessary. In this way, postoperative analgesia can be controlled [3], mean stay in the ODSU should be decreased and admissions due to uncontrolled postoperative pain avoided [4,5].

To evaluate the effectiveness of our clinical guide, we have reviewed the results obtained during 1998 in relation to the control of postoperative pain in the patients treated in the ODSU.

2. Patients and method

A retrospective evaluation of all patients operated in our ODSU was undertaken. Two thousand seven hundred and eighty-three patients among a total of 3830 treated (72.6%) were considered for the study (patients operated under local anaesthesia and patients operated for cataracts were both excluded). Two thousand four hundred and fifty-two patients were adults (over 14 years) and 331 were children (under 14 years). The mean age in adults was 50.6 and 5.7 in paediatric patients.

All the patients were treated with the same analgesic drugs and doses, according to our clinical guide. Depending on the surgical procedure, adult patients were divided into four groups, each group was divided again in two considering the presence of gastroduodenal peptic disease. Paediatric patients were divided in two groups depending on the surgical procedure. Diazepam 5–10 mg postoperative was administered to the adult patients on the night before surgery while ranitidin 150 mg postoperative bid was given to patients over 65

* Corresponding author.
E-mail address: asunmarlo@retemail.es (M.A. Martín López).

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Table 1

Groups	Analgesia	Surgical procedures
1A	Diclofenac 50 mg/8 h	Arthroscopy, hands and fingers surgical
1B (peptic ulcer disease)	Metamizol 1150 mg/8 h	Diathermia cervix
2A	Diclofenac 50 mg/8 h, Paracetamol 500 mg/8 h	Foot, varicose, groin hernia, sinus, anal fistula
2B (peptic ulcer disease)	Metamizol 1150mg/8 h, Paracetamol 500 mg/8 h	Ligature, minor plastic surgery
3A	Diclofenac 50 mg/8 h, Paracetamol-codein 2 cap/8 h	Breast surgery, bilateral groin hernia
3B (peptic ulcer disease)	Metamizol 1150 mg/8 h Paracetamol-codein 2 cap/8 h	
4	Paracetamol 500 mg/6 h	Cataracts
P1 (Paediatrics)	Paracetamol jbe 60 mg/Kg per day)	Estrabism, groin hernia, E.N.T. surgery
P2 (Paediatrics)	Ibuprofen jbe (20 mg/Kg per day)	Phimosis

years or those with a previously known gastroduodenal peptic ulcer disease. Table 1 shows the therapeutic groups in relation to surgical procedures.

Evaluation of postoperative pain was undertaken by a phone call 24 h postoperatively using a visual analogic scale (VAS, range 1–10) and a verbal response scale (VRS) of Keele [6]. Both scales were shown to the patients before discharge. Admissions for uncontrolled postoperative pain were noted.

3. Results

Fig. 1 shows mean values of VAS in each group of treatment. Patients treated with metamizol (1B, 2B, 3B) expressed mean values over patients treated with diclofenac (1A, 2A, 3A). Paediatric patients had mean values under 1.5 in both groups.

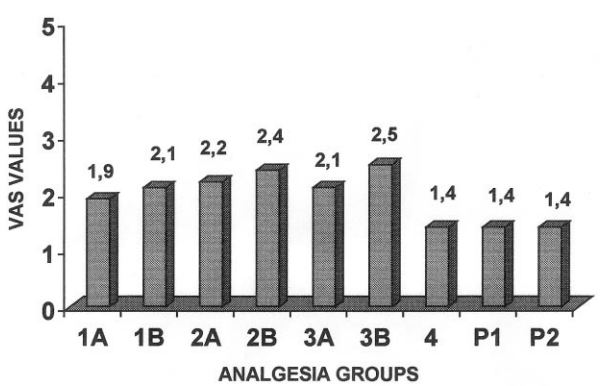

Fig. 1. Mean values of VAS in each analgesia group.

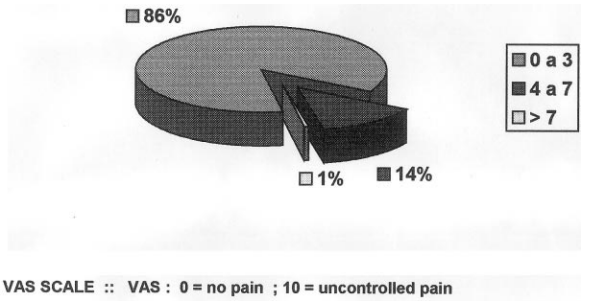

Fig. 2. Global VAS values. Vas scale — VAS, 0, no pain; 10, uncontrolled pain.

Fig. 2 show the global VAS values for all patients distributed in three groups to make a comparison with VRS categories in Fig. 3.

We had only two admissions for uncontrolled postoperative pain. One patient was a 46-year-old woman ASA I in whom a knee arthroscopy was undertaken under general anaesthesia. The other was a 45-year-old man ASA I operated for a groin hernia under spinal anaesthesia. In these cases, neither intra-articular nor local anaesthesia was used.

4. Conclusions

The existence of a protocol for the treatment of postoperative pain based on grouping therapeutics procedures according to surgery has been useful in decreasing clinical variability in postoperative analgesia. The decrease of clinical variability has allowed a continuous evaluation of analgesia effectiveness, as Beauregard postulated [2].

In spite of a low degree of difference, the groups treated with metamizol magnesium had higher levels of VAS when compared with those treated with diclofe

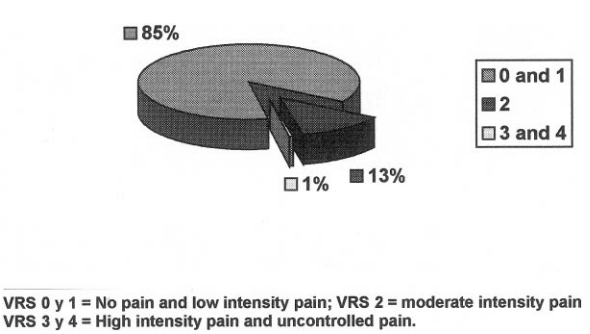

Fig. 3. VRS values. VRS 0 y 1, no pain and low intensity pain; VRS 2, moderate intensity pain; VRS 3 y 4, high-intensity and uncontrolled pain.

nac. This fact has been pointed out by other authors [7,8], but we think that new clinical trials are needed.

The positive effect of local infiltration for the treatment of postoperative pain [9] has been clearly confirmed. The two patients admitted for uncontrolled postoperative pain, a groin hernia repair and an arthroscopy were not submitted to local infiltration of the surgical wound and intra-articular infiltration, respectively.

The level of postoperative analgesia obtained in this study could be considered satisfactory. No group of analgesia showed a mean VAS level under 2.5 [2] and the admissions for uncontrolled pain were very low [3].

Increasing surgical complexity and future changes, including admitting to the day surgery programs patients with more associated diseases, will oblige us to make systematic reviews of protocols for the treatment of postoperative pain and to use more powerful analgesic drugs [10].

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