

# PERIOPERATIVE INTRAVENOUS (I.V.) LIDOCAINE IN LAPAROSCOPIC BARIATRIC SURGERY (LBS) IMPROVES QUALITY OF RECOVERY: AN OBSERVATIONAL RETROSPECTIVE STUDY



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## Background

As known in the literature, opioids, due to their breath-depressing effect, can be dangerous for obese patients, who often suffer from disorders such as obstructive sleep apnoea (OSA) and hypoventilation syndrome (OHS) (1,2,3).

At recommended doses (4,5), perioperative i.v. lidocaine is considered safe and effective in ensuring adequate pain control in patients undergoing laparoscopic bariatric surgery (LBS), without the aid of opioids (5,6).

## Aim

The present observational retrospective study aims to address the feasibility of "opioid free anaesthesia (OFA)" with i.v. lidocaine, evaluating its safety and effectiveness in LBS.



## Methods

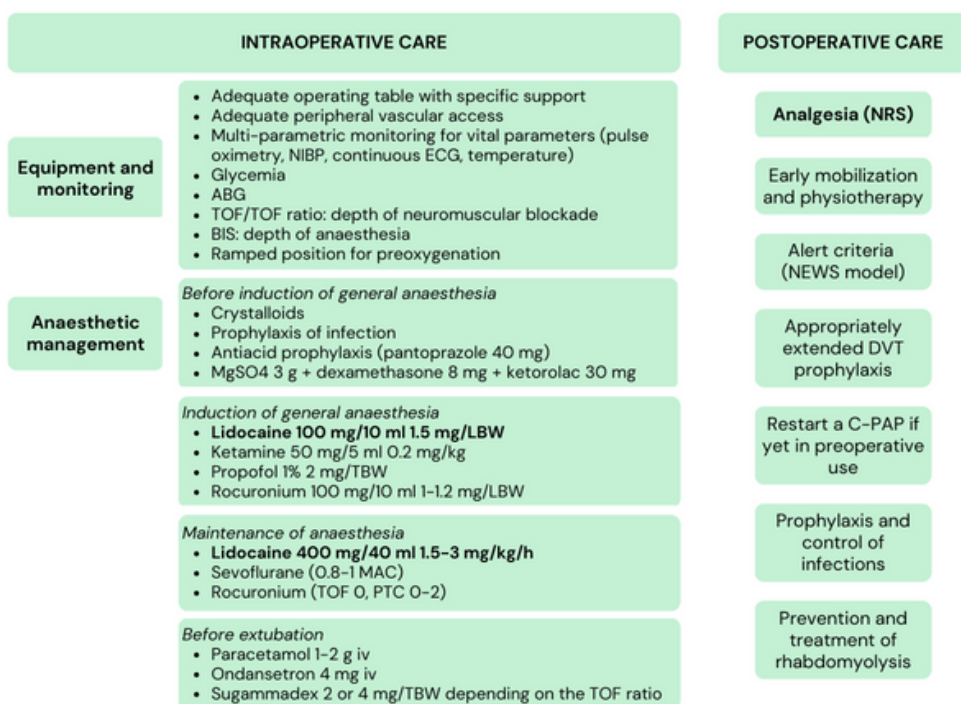
Clinical data of all patients undergoing LBS at "L. Galmarini" Hospital (Tradate, Italy) between Jan 2021 and Dec 2022 were retrospectively collected (Table 1). We tested a protocol of "opioid free anaesthesia" (OFA) using i.v. lidocaine (Figure 1).

All patients were evaluated in terms of postoperative pain control according to the "Numerical Rating Scale" (NRS). Adequate control of postoperative pain was considered reached with NRS ≤ 4 (24/48 hours).

	Total patients enrolled N = 156
Gender, male/female	33/123
BMI (kg/m <sup>2</sup> ), mean, female	40.96 (min. 31.56; max. 54.11)
BMI (kg/m <sup>2</sup> ), mean, male	41.86 (min. 32.53; max. 53.07)

**Table 1. Clinical data.**

In this retrospective observational study we enrolled 156 adult patients. No exclusion criteria were identified.



**Figure 1. Perioperative management: our protocol of "opioid free anaesthesia" (OFA) using i.v. lidocaine.**

## Results

The protocol used ensured adequate anaesthesia and pain control (Graphic 1).

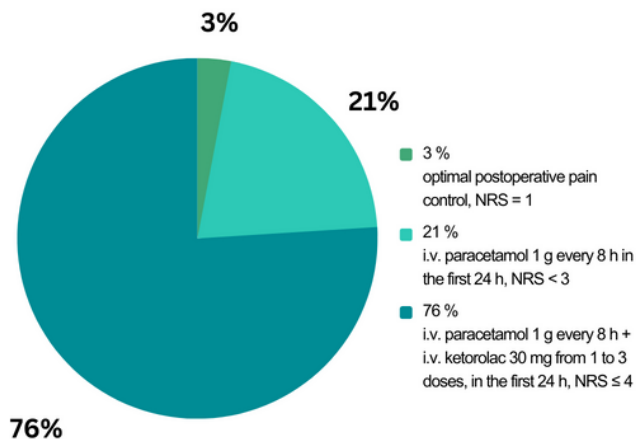
No adverse effects related to i.v. lidocaine were noted during the perioperative time.

## Conclusions

Based on our experience and supported by the literature, we can state that the use of i.v. lidocaine in LBS seems to be safe and effective in reducing consumption of opioids, improving quality of recovery (5).

The results obtained (considering the advantages of an "opioid free anaesthesia" (OFA), the easy and safe applicability of the protocol, and the reduced adverse effects associated with the use of i.v. lidocaine) encourage further studies.

The opioid sparing effect of systemic i.v. lidocaine could be a significant criterion to better investigate its efficacy for the applicability of "ERAS" (Enhanced Recovery After Surgery) protocols (7).



**Graphic 1. Postoperative analgesia (24/48 h).**

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