Reviewer's report

Title: Pain relief from combined wound and intraperitoneal local anesthesia for patients who undergo laparoscopic cholecystectomy

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Reviewer: Ferdinando Agresta

Reviewer's report:

Many thanks for the opportunity to review the paper about pain relief after LC...a well done one but unfortunately, and I do not understand why, a case controlled paper. Just another one.

The Authors had a good idea, above all had the possibility to see and follow up 220 consecutive patients, but they have decided to liberally allocated the patients in one of the 4 groups they are analysing. Why? The first thing I got in my mind is "biases" which are going to alter the results of the paper.

Than nothing is reported about surgery: all the procedures where the same, and not only in term of "time"? Than, analgesia only "a la demande"? Nothing scheduled?

Recovery after LC is usually rapid and most patients may be discharged from hospital the same day or the next day. However, although LC results in substantially less severe discomfort compared with the open surgery, postoperative pain (POP) can still be considerable. Pain can result in increased postoperative morbidity and delayed hospital discharge, issues that have health economic implications as LC can often be performed on a day surgery setting.

(1) Local anesthetic infiltration at the trocar sites, as already known, significantly reduces POP [2]; it is safe, cost-effective and currently is routinely performed. Wound infiltration with local anesthetics is more effective if performed at the beginning of the operation [3]. Usually long-acting local anesthetics such as ropivacaine or levobupivacaine are chosen and it is important that they are administered not only subcutaneously but also into the subfascial layers.

Another strategy to reduce POP is the intraperitoneal nebulization of local anesthetics. Literature shows conflicting results [4]. While a recent well-designed study seems to rehabilitate this procedure [5], showing that ropivacaine nebulization before or after LC reduced POP, another systematic review does not recommend routine usage of intraperitoneal instillation after LC [6]. LC specific evidence shows that this route of administration has a significant benefit in the early postoperative period (4-6 hrs), but not beyond [7].

These are the premise: and the manuscript is just reporting a case controlled study. Nothing new!!!


**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

'I declare that I have no competing interests' below