

# Intraperitoneal local anesthetic for postoperative pain

Intraperitoneal local anesthetic (IPLA) has become an important addition for postoperative pain in the era of modern surgery. The method of delivering local anesthetic directly to the intraperitoneal cavity was first described in 1951 by Griffin *et al.*<sup>[1]</sup> However, this method was forgotten for decades until its implementation in minimal access surgery was rekindled. Based on level A evidence it is now accepted that IPLA significantly reduces postoperative pain and opioid use after laparoscopic general surgical procedures,<sup>[2,3]</sup> open hysterectomy,<sup>[4]</sup> and laparoscopic gynecological procedures.<sup>[5]</sup> Various drugs, doses, and methods have been utilized. In this current issue, in a well-conducted double-blind trial, we observe the effect of combining IPLA and morphine to significantly reduce pain outcomes in women undergoing laparoscopic gynecological procedures (ref. present study).

There are several mechanisms of IPLA that have been postulated. IPLA is likely to blockade free afferent nerve endings in the peritoneum. Systemic absorption of local anesthetic from the peritoneal cavity may also play a part in reduced nociception although this would be expected to occur after any local anesthetic technique. Systemic levels of local anesthetic are detectable in the serum circulation as soon as 2 min after bolus instillation into the peritoneum<sup>[6]</sup> and a systematic review has recently confirmed that low-dose intravenous local anesthetic infusion is advantageous when compared to parenteral opioids alone in patients having abdominal operations.<sup>[7]</sup> It is also known that local anesthetics have anti-inflammatory actions.<sup>[8]</sup>

With this evidence in mind, it is hoped that surgeons and anesthesiologists will seriously consider the instillation of IPLA as part of multimodal analgesia.

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