Perineural *vs* intravenous administration of dexamethasone: more data are available

Editor—We read with great interest the recent editorial wherein Martinez and Fletcher[1] discussed the analgesic effects of i.v. and perineural administration of dexamethasone, after publication of a single recent trial.[2] After performing a systematic search in the PUBMED, CENTRAL, Embase, and Google Scholar™ databases without language restriction, we were able to capture two additional trials that specifically investigated this question.[3 4] Contrary to the paper by Desmet and colleagues,[2] these investigations provide support in favour of the perineural route of administration.

Kawanishi and colleagues[3] injected dexamethasone 4 mg during nerve stimulator-guided interscalene brachial plexus block with 20 ml of ropivacaine 0.75%, while Rahangdale and colleagues[4] used a dose of 8 mg, combined with a 0.45 ml kg^{-1} mixture of bupivacaine 0.5% and epinephrine 1:300 000 for ultrasound-guided sciatic nerve block. A meta-analysis on the duration of analgesia performed with Review Manager (RevMan version 5.2; Copenhagen: The Nordic Cochrane Centre, The Cochrane Collaboration 2012) suggests that, when compared with the i.v. route, the perineural administration of dexamethasone extends duration of analgesia by mean differences (95% confidence interval) of 174 (278; 71) min ($P=0.001$) and 162 (324; −1) min ($P=0.05$) after a fixed- and random-effect model, respectively. Although a definitive conclusion cannot be drawn from a small meta-analysis of only 173 patients, and confirmation by additional randomized controlled trials is warranted, the preliminary data to date favour the perineural route.

Importantly, as Martinez and Fletcher point out, safety data supporting perineural dexamethasone are scarce. In addition to the clinical investigation of 60 patients[5] and a subgroup analysis on 407 patients[6] described by Martinez and Fletcher, we draw attention to a series of 2000 intrathecal injections of 8 mg dexamethasone for the treatment of post-traumatic visual disturbance in 200 patients, performed without any neurological sequelae reported.[7]

In conclusion, we thank Martinez and Fletcher for their insightful editorial. Although support for the clinical benefit of perineural dexamethasone exists, we emphasize their conclusion that further clinical investigations should be conducted to confirm these findings and the safety profile of this route of administration. Only then can the widespread use of perineural dexamethasone be recommended.

Declaration of interest

None declared.

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Gastrointestinal morbidity as primary outcome measure in studies comparing crystalloid and colloid within a goal-directed therapy

Editor—We read with interest the article by Yates and colleagues[1] who compared a balanced crystalloid (CRY) and balanced hydroxyethyl starch (HES) solution within a haemodynamic algorithm guided by pulse power wave analysis in patients undergoing elective colorectal surgery. The primary outcome measure was the inability to tolerate a full enteral diet at postoperative day 5 (POD5) either by mouth or via a feeding tube for any reason, including nausea, vomiting, abdominal distension, or ileus.[1] While their results showed no difference between the HES and CRY groups, a total of 31% of the study patients failed to tolerate a full diet on POD5. This result is seriously contrasting with a recently published study by Feldheiser and colleagues,[2] also comparing a balanced crystalloid and a balanced colloid solution within a goal-directed haemodynamic algorithm in patients with metastatic ovarian carcinoma undergoing cytoreductive surgery. They reported a lower rate of 18.7% not tolerating a full diet on POD5, despite a substantially higher POSSUM operative score (32 *vs* 12 points).

Postoperative gastrointestinal (GI) morbidity as primary outcome measure in studies comparing two i.v. solutions seems to be very challenging as this primary endpoint is assumed to be multifactorial and can only be compared appropriately if multiple factors contributing to postoperative ileus