classical clinical course, and exclusion of other causes. Non-steroidal anti-inflammatory drugs (NSAIDs) may cause idiosyncratic liver damage but typically, the onset of the NSAIDs-induced hepatic injury is delayed and follows long-term administration. The clinical course did not suggest inhaled anaesthetic-induced liver failure.

Obesity and liver steatosis risk factors may be associated with depletion of glutathione (GSH) stores due to impaired hepatocellular function. The first patient was not overweight, but inter-individual variations of acetaminophen glucuronidation have been also suggested.

Acetaminophen is conjugated in the liver by the UDP-glucuronosyl-transferase and by sulphotransferase. Other metabolic enzyme system is cytochrome P450 (mainly CYP2E1 but also 1A2 and 3A4) resulting in production of NAPQI. NAPQI-mediated mitochondrial injury may be the source of the superoxide leading to hepatotoxicity. Conditions leading to depletion of GSH stores (obesity, liver steatosis, starvation, and malnutrition) could be considered as risk factors for acetaminophen-induced hepatotoxicity along with CYP inducers (alcohol, antiepileptic drugs).

We conclude that when prescribing acetaminophen after operation, particular attention must be paid to patients who are at risk of hepatotoxicity due to pre-existing liver steatosis or other risk factors of hepatotoxicity.

P. Forget*
X. Wittebole
P.-F. Laterre
Brussels, Belgium
*E-mail: forgetpatrice@yahoo.fr

Editor—We read the article by El-Dawlatly and colleagues with great interest. We were very surprised that they have called their ultrasound-guided technique of performing the transversus abdominis plane (TAP) block ‘a new technique’. As mentioned in their study, the block has been described using ultrasound guidance in several reports and a cadaveric study. We have certainly described the exact approach for laparoscopic surgery in our case series.

There are also a few omissions we would like to highlight. We expected to find a comparison of pain scores at different times between both groups in the postoperative period which is a good indicator of the quality of the analgesia provided. There was also no mention of the impact the reduction in morphine consumption had on the side-effects associated with this particular surgery and augmented by the use of opioids, such as nausea and vomiting.

Our experience with the use of TAP blocks for laparoscopic cholecystectomy shows comparable opioid-sparing effects, although in our institution two of the ports used by the surgeons are placed in the supra-umbilical region which necessitates an additional subcostal injection to provide adequate analgesia.

K. Mukhtar*
S. Singh
Liverpool, UK
*E-mail: karimmukhtar@gmail.com

Editor—I thank Drs Mukhtar and Singh for their comments and agree that the technique of ultrasound TAP block has been described earlier; however, its use in laparoscopic cholecystectomy has not been reported. I also agree that scores for pain and nausea and vomiting assessment would be appropriate for our study. However, these are our initial results which address the efficacy of TAP block in laparoscopic surgery and we are involved in a subsequent large sample study which will address the issues raised. We believe that further studies are needed to evaluate optimal volumes for ultrasound-guided TAP block and pharmacokinetic data.

A. El-Dawlatly (on behalf of the authors)*
Riyadh, Saudi Arabia
*E-mail: dawlatly@ksu.edu.sa

Editor—We read the article by El-Dawlatly and colleagues with great interest. We were very surprised that they have called their ultrasound-guided technique of performing the transversus abdominis plane (TAP) block ‘a new technique’. As mentioned in their study, the block has been described using ultrasound guidance in several reports and a cadaveric study. We have certainly described the exact approach for laparoscopic surgery in our case series.

There are also a few omissions we would like to highlight. We expected to find a comparison of pain scores at different times between both groups in the postoperative period which is a good indicator of the quality of the analgesia provided. There was also no mention of the impact the reduction in morphine consumption had on the side-effects associated with this particular surgery and augmented by the use of opioids, such as nausea and vomiting.

Our experience with the use of TAP blocks for laparoscopic cholecystectomy shows comparable opioid-sparing effects, although in our institution two of the ports used by the surgeons are placed in the supra-umbilical region which necessitates an additional subcostal injection to provide adequate analgesia.

K. Mukhtar*
S. Singh
Liverpool, UK
*E-mail: karimmukhtar@gmail.com

Editor—I thank Drs Mukhtar and Singh for their comments and agree that the technique of ultrasound TAP block has been described earlier; however, its use in laparoscopic cholecystectomy has not been reported. I also agree that scores for pain and nausea and vomiting assessment would be appropriate for our study. However, these are our initial results which address the efficacy of TAP block in laparoscopic surgery and we are involved in a subsequent large sample study which will address the issues raised. We believe that further studies are needed to evaluate optimal volumes for ultrasound-guided TAP block and pharmacokinetic data.

A. El-Dawlatly (on behalf of the authors)*
Riyadh, Saudi Arabia
*E-mail: dawlatly@ksu.edu.sa

Editor—I thank Drs Mukhtar and Singh for their comments and agree that the technique of ultrasound TAP block has been described earlier; however, its use in laparoscopic cholecystectomy has not been reported. I also agree that scores for pain and nausea and vomiting assessment would be appropriate for our study. However, these are our initial results which address the efficacy of TAP block in laparoscopic surgery and we are involved in a subsequent large sample study which will address the issues raised. We believe that further studies are needed to evaluate optimal volumes for ultrasound-guided TAP block and pharmacokinetic data.

A. El-Dawlatly (on behalf of the authors)*
Riyadh, Saudi Arabia
*E-mail: dawlatly@ksu.edu.sa

Editor—I thank Drs Mukhtar and Singh for their comments and agree that the technique of ultrasound TAP block has been described earlier; however, its use in laparoscopic cholecystectomy has not been reported. I also agree that scores for pain and nausea and vomiting assessment would be appropriate for our study. However, these are our initial results which address the efficacy of TAP block in laparoscopic surgery and we are involved in a subsequent large sample study which will address the issues raised. We believe that further studies are needed to evaluate optimal volumes for ultrasound-guided TAP block and pharmacokinetic data.

A. El-Dawlatly (on behalf of the authors)*
Riyadh, Saudi Arabia
*E-mail: dawlatly@ksu.edu.sa
Continuous i.v. infusion of remifentanil and intraosseous lidocaine provide better analgesia than intraosseous lidocaine alone in percutaneous vertebroplasty of osteoporotic fractures

Editor—Several methods have been reported for providing anaesthesia for percutaneous vertebroplasty (PV). These include local anaesthesia alone,1 local anaesthesia and sedation,2, 3 and general anaesthesia.4 Sesay and colleagues5 reported that intraosseous lidocaine provides effective analgesia in 84% of patients undergoing PV and the addition of i.v. boluses of propofol was required in about 10% of patients. Target-controlled infusions (TCI) of remifentanil in conscious sedation regimes is reported in other settings,6 but conscious sedation with remifentanil infusion in conscious sedation regimes is reported in other

Table 1. VRS monitoring on groups. *Thirty patients in each group at baseline. One patient from the ILR group and six patients from the IL group were excluded from the further analysis because they were deeply sedated during the procedure for severe pain.

<table>
<thead>
<tr>
<th>Verbal rating scale*</th>
<th>No pain, n (%)</th>
<th>Mild pain, n (%)</th>
<th>Moderate pain, n (%)</th>
<th>Severe pain, n (%)</th>
<th>Very severe pain, n (%)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IL (n=30)</td>
<td>11 (36.7)</td>
<td>5 (16.7)</td>
<td>10 (33.3)</td>
<td>3 (10.0)</td>
<td>1 (3.3)</td>
<td>0.6</td>
</tr>
<tr>
<td>IL (n=30)</td>
<td>9 (30.0)</td>
<td>9 (30.0)</td>
<td>6 (20.0)</td>
<td>5 (16.7)</td>
<td>1 (3.3)</td>
<td></td>
</tr>
<tr>
<td>Trocar insertion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ILR (n=29)</td>
<td>17 (58.6)</td>
<td>7 (24.1)</td>
<td>5 (17.3)</td>
<td></td>
<td></td>
<td>0.003</td>
</tr>
<tr>
<td>IL (n=24)</td>
<td>4 (20.0)</td>
<td>7 (26.7)</td>
<td>13 (50.0)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trocar positioning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ILR (n=29)</td>
<td>17 (58.6)</td>
<td>8 (27.6)</td>
<td>4 (13.8)</td>
<td></td>
<td></td>
<td>0.002</td>
</tr>
<tr>
<td>IL (n=24)</td>
<td>4 (16.7)</td>
<td>8 (33.3)</td>
<td>12 (50.0)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cement injection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>ILR (n=29)</td>
<td>24 (82.8)</td>
<td>4 (13.8)</td>
<td>1 (3.4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IL (n=24)</td>
<td>9 (37.5)</td>
<td>6 (25.0)</td>
<td>9 (37.5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>End of surgery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.1</td>
</tr>
<tr>
<td>ILR (n=29)</td>
<td>28 (96.6)</td>
<td>1 (3.4)</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IL (n=24)</td>
<td>19 (79.1)</td>
<td>4 (16.7)</td>
<td>1 (4.2)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>