Abstract

Background
To assess liability associated with regional surgical anesthesia, we analyzed the American Society of Anesthesiologists (ASA) Closed Claims Project. This database is a standardized collection of case summaries derived from the closed claims files of professional liability insurance companies.

Methods
All claims between 1980 and 1999 for regional surgical anesthesia were analyzed and compared to other surgical anesthesia claims. Obstetric claims for baby-only injuries were excluded. Statistical analysis was performed using the Z-test for comparisons of proportions and the Kolmogorov-Smirnov Test with Monte-Carlo estimates of 2-sided p-values for comparisons of amount of payments.

Results
A total of 962 of 5475 claims (18%) met the criteria. There was a higher percentage of temporary or non-disabling injuries in the regional claims compared to other surgical anesthesia claims (64% vs. 46%, p<0.05). Obstetrics accounted for 78% of these minor injuries in the regional group, compared to 37% in the other surgical anesthesia group. The remaining regional claim injuries included death (13%), permanent nerve injury (10%), permanent brain damage (8%), and other permanent injuries (4%) (Figure I). Regional techniques utilized included: spinal (34%), lumbar epidural (42%), axillary (6%), eye (4%), caudal epidural (2%), interscalene (2%), intravenous regional (2%) and other blocks (8%). Standard of care in regional claims was judged as substandard less often than other surgical anesthesia claims (28% vs. 39%, p<0.05). Payment was made in 44% of all regional claims, with amount of payment significantly lower than that for other surgical anesthesia claims (p<0.05). Substandard care claims were more likely to be paid than standard care claims (71% vs. 29%, p<0.05) (Table I).

Conclusion
Regional anesthesia accounts for 18% of professional liability claims. Most injuries are temporary or non-disabling. Standard of care was judged as meeting standards significantly more
in the regional anesthesia group compared to the other surgical anesthesia group. Injury severity and standard of care in regional anesthesia claims may account for lower likelihood and size of payments compared to other surgical anesthesia claims.

Table 1

<table>
<thead>
<tr>
<th></th>
<th>Regional Claims 1980-1999</th>
<th>Substandard Care</th>
<th>Standard Care</th>
<th>Impossible to Judge</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>270</td>
<td>586</td>
<td>106</td>
<td></td>
</tr>
<tr>
<td>Payment</td>
<td>193 (71%)</td>
<td>172 (29%)</td>
<td>55 (52%)</td>
<td></td>
</tr>
<tr>
<td>No Payment</td>
<td>57 (21%)</td>
<td>338 (58%)</td>
<td>40 (38%)</td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td>20 (7%)</td>
<td>76 (13%)</td>
<td>11 (10%)</td>
<td></td>
</tr>
</tbody>
</table>

Chart

Outcomes in Regional Anesthesia Vs. Other Surgical Anesthesia 1980-1999

- Regional Claims (n=952)
- Other Claims (n=3353)
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