



## Letters and comments

Contributors to this section are asked to make their comments brief and to the point. Letters should comply with the Notice printed on the inside back cover. Tables and figures should only be included if absolutely essential and no more than five references should be given. The Editor reserves the right to shorten letters and to subedit contributions to ensure clarity.

### Laparoscopic procedures are associated with a significant risk of digital nerve injury for general surgeons

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There have been sporadic reports of laparoscopic instruments causing digital nerve injuries in surgeons.<sup>1–5</sup> The concern, regarding such injuries, is that they may alter tactile sensation to an extent that the surgeon's performance is impaired in subsequent operations. Our department recently investigated this occupational hazard through a questionnaire which was sent to all consultant general surgeons in Northern Ireland who routinely perform laparoscopic surgery.

Of 53 questionnaires posted, 50 replies were received (94% response rate). Of the 50 respondents, 20 surgeons (40%) had, at some time, experienced a digital neuropraxia following a laparoscopic procedure. The median duration of symptoms was 9 h and the median number of episodes was 4.5. Of the 20 symptomatic surgeons, 9 (45%) reported numbness on the right thumb only, 6 (30%) reported numbness on the left hand only, while 5 (25%) reported bilateral numbness. The ulnar aspect of the thumb was most commonly affected. The group of surgeons who had experienced numbness performed significantly more laparoscopic procedures per year than the asymptomatic group (45.0 [range, 4–100] versus 30.0 [range, 11–300] procedures per year,  $P < 0.05$  Mann-Whitney U test). There was no association between number of years performing laparoscopic surgery and the incidence of this complication (10.0 [range, 4.0–12.0] versus 10.0 [range, 7.0–12.0] years).

We believe that these injuries are due to the fact that the video display unit magnifies the operative field and thus small hand movements are exaggerated on screen. In an attempt to reduce shake and perform accurate movements, surgeons therefore tend to hold the instruments tighter than they would if they were operating on an open wound

causing pressure on the digital nerves. If this increased pressure on the digital nerves is prolonged, for example during difficult dissection or lengthy retraction, a neuropraxia may result. Improved ergonomics could be achieved by redesigning instruments with larger contoured surface areas and without angular elevation. This should reduce the pressure transmitted to the operator's digital nerves and lower the frequency of this complication.

#### References

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### Misting of eye protection during surgery

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The need for eye protection during surgery is well recognised, but often disregarded due to misting of lenses and visors. Exhaled breath is warmer and more humid than the air circulating in operating theatres, and