Reply to Chen et al.

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We would like to thank Chen et al. for their careful reading of, and comments [1] regarding, our manuscript [2]. We completely agree that diagnostic pain is mainly dependent on the patient’s description and lacks an objective assessment. This is one of the limitations of our study that was mentioned in the discussion. We also agree that our results demonstrate that pain intensity, analgesic use and the incidences of the principal pain characteristics of the two groups were not significantly different during the early phase or at 3-months and 6-months after thoracic surgery. Our results do show, however, that the incidence of newly developed pain at 6 months was significantly less common in the TIVA (total intravenous anaesthesia) group, which is an important factor that can help understand the transition of pain to chronicity. In addition, although allodynia-like pain was not a main feature, it was significantly more common in the inhaled-anaesthesia group.

However, we do not agree with the comments regarding the role TIVA plays in reducing the prevalence of CPTS (chronic post-thoracotomy pain syndrome) because we compared the prevalence of CPTS in the TIVA group with the inhalation group, which demonstrated a statistically significant difference between the two groups. It would be of little significance or importance to compare it with the prevalence of CPTS reported in previous studies.

We apologize for the error we made in Table 4 and thank Chen et al. for helping us to correct this mistake, as well as the editor for giving us the opportunity to do so. We have amended Table 4 as follows: in group II, burning has been changed from 5 (2.9%) to 15 (8.8%; P = 0.38), pins and needles have been changed from 17 (10%) to 27 (15.9%; P = 0.24) and aching has been changed from 19 (11.2%) to 29 (17.1%; P = 0.35) at 6 months. We have also changed the percentage of aching in group I at 6 months from 1.2 to 12.7%.

At our institution, the use of inhalation anaesthetics (such as sevoflurane) with the continuous infusion of thoracic epidural analgesia has been the routine anaesthetic technique for thoracic surgery. As mentioned in the methods section, we maintained sevoflurane with the continuous infusion of thoracic epidural patient controlled analgesia to a bispectral index (BIS, XP version 4.1; Aspect Medical Systems, Newton, MA, USA) level of ~50 when performing on the inhalation group. Using this method, we performed anaesthesia for thoracic surgery without weak analgesic problems during the operation.

Another major limitation of our study is that we did not include a sevoflurane and remifentanil group, which was also mentioned in the discussion. Further studies are needed to verify which drug may play pivotal roles in lowering the incidence of CPTS.

REFERENCES
