Letter to the Editor

Thoracoscopic sympathectomy for craniofacial hyperhidrosis

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We read with interest the article entitled ‘Ultra-thin needle thoracoscopic surgery for hyperhidrosis with excellent cosmetic effects’ by Sung et al. [1].

We congratulate them on their good results. However, based on our extensive experience in the treatment of patients with palmar hyperhidrosis (PH), we would like to comment on several important points. Endoscopic sympathectomy was reported by Dr Kux in 1977 as a primitive keyhole vision technique and was not popular until 1990 when we first reported the use of the ‘video’ endoscopic technique to treat patients with PH. The technique provides a magnified and well-illuminated intrathoracic view, therefore, it soon became widely accepted as the standard treatment for patients with PH [2].

Regarding the location of the ribs, two important landmarks are very helpful. The first landmark is a bundle of superior intercostal vessels that are easily identified vertically crossing over the second rib near or lateral and parallel to the sympathetic trunk. The second landmark is a prominent draining vein usually located at the lower medial corner of the third rib head. In addition, we advocate the importance of monitoring the palmar skin temperature as an aid to confirm correct and adequate sympathectomy leading to long-term relief of PH. This monitoring is particularly useful when there is a question about the rib number, such as in obese patients or those with pleural adhesions [3,4].

Regarding either sympathectomy or sympathicotomy, a simple cut of the sympathetic trunk with scissors may yield a high risk of recurrence. Division of the sympathetic chain with an electrocoagulator will result in similar coagulation effects as that produced by electrocoagulation of the segment overlaying the rib head. We believe that the T2 segment rather than the T3 segment is the key segment for relieving PH [5].

As far as we know, we were the first to report the application of the ‘video’ endoscopic ablation of the T2 segment to treat craniofacial hyperhidrosis [6]. Since a major part of the sympathetic fibers from the T2 segment innervates the palms, and only a few sympathetic fibers from the T2 segment innervate the head and face, therefore, T2 sympathectomy may alleviate craniofacial hyperhidrosis, but it would not induce ptosis. With the patient in the semi-Fowler’s position and the temporary disconnection of the patient from ventilation, the trocar (the tip is polished blunt) can safely be inserted into pleural cavity and the upper lung will gradually and spontaneously collapse to allow a clear view of the upper thorax without the need for intrathoracic CO2 insufflation [7]. We have experience in using both a 10-mm operating thoracoscope with one-port and a needle scope with two-ports. We found that either method has good cosmetic results and no wound pain, however the former is easier and simpler to perform than the latter.

We believe that the above mentioned information will be useful for surgeons performing thoracoscopic sympathectomy.

References