Letter to the editor

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Transthoracic endoscopic sympathectomy

I read with interest the recent article by Lin et al. entitled "Repeat transthoracic endoscopic sympathectomy for palmar and axillary hyperhidrosis" [6] and would like to comment on several important points regarding transthoracic endoscopic sympathectomy (TES).

In 1990, we first developed video TES to treat palmar hyperhidrosis (PH); it has now become widely accepted as a standard treatment fof this disorder123.

Clinically, PH recurrence can be classified into two groups. One group is early recurrence ("relapse" may be a more appropriate term), which usually occurs within 1 week or 1 month after sympathectomy. These cases are mostly due to incomplete or inadequate ablation of the correct sympathetic segment during the first TES because of local pleural adhesions or performance of the procedure by an inexperienced operator. Another group is late recurrence, which develops several months or as long as a year after the procedure. This is most likely due to regeneration or sprouting of collateral sympathetic fibers from the surgically ablated stump1.45.

Compensatory hyperhidrosis (CH) is a very common complication of PH patients after sympathectomy, but its etiology is still unclear. It is interesting to note that CH will remain persistent, despite the patients having developed recurrence of PH. This phenomenon confirms our postulated mechanism that CH is due to the regeneration or sprouting of sympathetic fibers from the previous surgically injured sympathetic stump. The successful relief of recurrent PH after subsequent adequate sympathectomy further supports this hypothesis.

For recurrent cases with simple pleural adhesions, redo TES as proposed by the authors is adequate. For those with diffuse and severe pleural and lung adhesions that seriously hamper access to the sympathetic chain, TES requires meticulous pleurolysis and pneumolysis. In this situation, we prefer open dorsal sympathectomy with a microsurgical technique. The microsurgical approach can avoid time-consuming, tissue-injuring pleurolysis and pneumolysis, although it requires a larger operation wound and the resection of some small bony structures. Furthermore, this technique can avoid the risks of pneumothorax or hemothorax, which may develop with thoracoscopy.

Based on our experience, we must stress the importance of using a simple physiological monitor (intraoperative monitoring of palmar skin temperature) to confirm an adequate sympathectomy, which will lead to a definite therapeutic effect. In particular, when there are severe pleural adhesions in which the anatomical orientation or identification of the sympathetic chain is very difficult, the need for use of this monitoring technique to achieve a definite sympathectomy cannot be overemphasized.

We hope that these comments will prove useful for surgeons who perform TES.

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