
Abstract

Purpose: We compared the results from a video-assisted thoracoscopic sympathectomy (VTS) at the T4 denervation level with those from a VTS at the T3 level for the treatment of palmar hyperhidrosis (PH).

Methods: Seventy patients with PH were prospectively followed for VTS at the T3 or T4 denervation levels for 6 months. The end points of this study were: absence of PH, compensatory hyperhidrosis (CH), and quality-of-life assessment.

Results: Sixty-seven patients reported a complete resolution of PH after surgery. One failure occurred in the T3 group and 2 in the T4 group. When anhidrosis was obtained, we noticed totally dry hands in 26 patients in the T3 group and 6 patients in the T4 group. The other 27 patients in the T4 group and 8 in the T3 group maintained a small level of sweating and were also considered to be therapeutic successes. At 6 months, 25 patients in the T4 group had some degree of CH (71.42%) and all patients in the T3 group (100%), though the T4 group had a lower degree of severity of CH at the 6-month follow-up (P < 0.05). After the operation, quality of life was improved similarly in both groups.

Conclusions: VTS at either the T3 or T4 level provides an effective treatment for PH. VTS at the T4 level is associated with a less severe form of CH. Despite the occurrence of CH, patients’ quality of life is significantly improved following VTS at the T3 or T4 levels. For this reason, the T4 resection can now be used as a treatment for PH.