

Patient Satisfaction after Endoscopic Thoracic Sympathectomy for Palmar Hyperhidrosis

Hiroshige Nakamura, Tomohiro Haruki, Yoshin Adachi, Shinji Fujioka, Ken Miwa and Yuji Taniguchi

Division of General Thoracic Surgery, Tottori University Hospital, Yonago 683-8504 Japan

Endoscopic thoracic sympathectomy (ETS) for palmar hyperhidrosis was performed using a 3-mm small endoscope at our hospital, and we conducted a questionnaire for the purpose of studying the conditions and satisfaction after surgery. The subjects were comprised of 50 patients, of which 35 patients (75%) answered the survey. The average age of the respondents was 27 years old (range: 12–62 years old) including 13 males and 22 females and the average postoperative observation period was 33 months (1–114 months). The results showed the good effects of surgery in all of the patients for palmar sweating while patient satisfaction was 79.4 points, which concluded that ETS was sufficiently accepted as treatment for palmar hyperhidrosis. However, compensatory sweating (CS) developed in 97.1% of the patients, and 82.9% answered that they were disturbed because it was more than they had expected. This result makes us realize further the importance of preoperative informed consent for CS. The problem of palmar hyperhidrosis is very serious for patients, and hence it is important to give treatment with a thorough understanding of the effectiveness and problems of ETS for palmar hyperhidrosis according to the analytical results of this questionnaire.

Key words: compensatory sweating; endoscopic thoracic sympathectomy; palmar hyperhidrosis; patient satisfaction

Palmar hyperhidrosis is a disorder of unknown cause with excessive sweating on the palms and tends to increase with the recent upsurge of stress in society as a background. It mostly develops in later childhood, and because emotional distress is great, some people become introverted after having this problem for many years. We have successfully performed endoscopic thoracic sympathectomies (ETS) for the present disorder using a 3-mm small endoscope, and afterwards, conducted a questionnaire for the purpose of studying long-term sweating conditions and satisfaction after surgery in patients with palmar hyperhidrosis who underwent surgery at our hospital.

Subjects and Methods

A questionnaire was given by mail as a response system for 50 patients with palmar hyperhidrosis who had ETS at Tottori University Hospital from August 1998 to December 2007. Before ETS, we explained the operative indications, procedures, complications and adverse effects including compensatory sweating (CS) to the patients as informed consent. Especially regarding CS, we noticed that it would occur in all the patients to a greater or lesser degree. For surgery, ETS at the 2nd and 3rd levels (T2 and T3 sympathectomy)

Abbreviations: CS, compensatory sweating; ETS, endoscopic thoracic sympathectomy

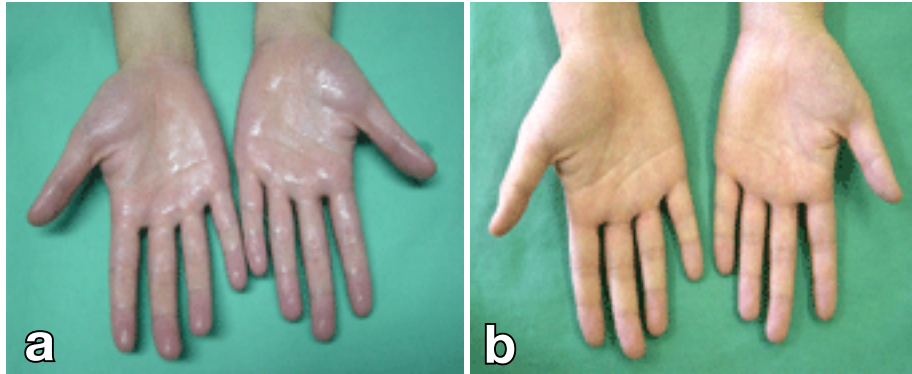


Fig. 1. Comparison of the preoperative and postoperative conditions of the palms of a patient with palmar hyperhidrosis. **a:** Before endoscopic thoracic sympathectomy (ETS). **b:** After ETS.

was performed under general anesthesia using a small 3-mm endoscope. After dissection of the mediastinal pleura, the thoracic sympathetic trunk was cut and coagulated with end-scissors or electro-cauterized on the second and third rib. Palmar sweating stopped in all of the patients immediately after the surgery (Fig. 1). For the questionnaire, the current sweating condition, CS,

daily life, anxiety over the surgery for palmar hyperhidrosis and postoperative patient satisfaction were studied. Answers were obtained from 35 patients (75%). The average age of the respondents was 27 years old (12–62 years old). There were 13 males and 22 females and the average postoperative observation period was 33 months (1–114 months). There were no complications in the all patients during the peri-operative period.

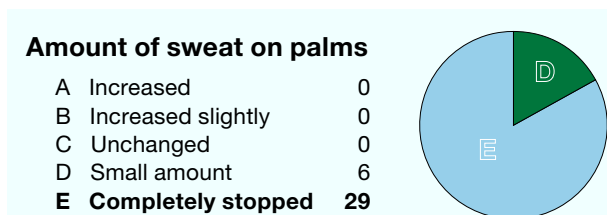


Fig. 2. Current conditions of sweating.

• Are there any new areas where you experience sweating (CS)? (**yes: 34**; no: 1)

→ **For those who answered “yes”**

• How much are you sweating (CS) compared to your expectations?

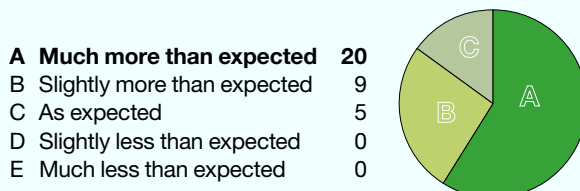


Fig. 3. Compensatory sweating (CS).

Results

Current sweating conditions

The amount of palmar sweating completely stopped in 29 patients (82.9%) but still occurred slightly in 6 patients (17.1%), which showed the positive effective of this surgery for all of the patients (Fig. 2). Facial and cervical sweating decreased in 25 patients (71.4%), but for sweating in the axilla and the sole of the foot, no change was observed in 12 patients (34.3%) and 17 patients (48.6%), respectively. These were the highest numbers recorded.

CS

CS occurred in 34 patients (97.1%), and 29 patients (82.9%) answered they were disturbed because it was more than they expected, and this number of patients was considered to be quite high (Fig. 3). The sites for sweating included the