Recently, the VapoMeter has been increasingly used for evaluating the results of treating primary hyperhidrosis. It consists of a closed measurement chamber capable of quantifying the loss of water vapor through the skin. This equipment is sensitive and capable of detecting differences in palmar evaporation rates in patients with hyperhidrosis [10].

The objective evaluation of the patients with hyperhidrosis revealed evaporation rates four times greater than those of the CONs before the treatment. Operative success with complete bilateral remission of the palmar sweating (anhidrosis) was achieved for all patients in both groups over the year of evaluation.

CH is the side effect most frequently reported in this type of surgery (87.5% of our patients after one year of follow-up) and is probably caused by destruction of the reflex arc between the sympathetic trunk and the hypothalamus [11]. Among our patients, CH occurred most frequently in the back region (19 out of 40 patients) and chest region (21 out of 40).

The high incidence of CH is probably related to the fact that Brazil is a tropical country in which temperatures are high during most seasons. Consequently, there is a physiological response that causes a greater amount of sweating. There seems to be a correlation between the severity of CH and the extent of the resection and between its severity and the ganglion level treated during the sympathectomy [12]. In our service, we perform resection on only one thoracic ganglion [13]. As in previous studies [14], the incidence of CH in the present study was greater in group G3 (100%) than in group G4 (75%) after one year of follow-up (P=0.047).

The QoL protocols have now become important tools for measuring the psychosocial aspects of the results of treatment [15]. In our study, the questionnaire described by Amir et al. [6]. Before the operation, all patients in both groups presented with a very poor QoL (93.1 for G3 and 93.4 for G4). One week after the surgery, the QoL was much better, both in group G3 (24.05) and in group G4 (24.85). This change remained stable until the end of the study (26.94 for G3 and 28.4 for G4).

Despite the high incidence of CH in both groups, which was worse in group G3 after one year of follow-up (100% in G3 vs. 75% in G4; P=0.047), we did not observe any difference in QoL after the operation between groups G3 and G4. Therefore, among our patients, the factor that was really associated with postoperative clinical satisfaction was the resolution of the PH.

5. Conclusions

Bilateral thoracic sympathectomy is an effective method for treating PH, both at the G3 and G4 levels. It generates an objective reduction in the palmar evaporation rate (TEWL) soon after the procedure, and this reduction is maintained throughout the follow-up.

CH appears more frequently in patients undergoing sympathectomy at the G3 level than at the G4 level. VATS gives rise to a large improvement in the QoL, both in patients undergoing G3 resection and in those undergoing G4 resection.

References


EComment: Primary palmar hyperhidrosis: double-stage three levels clipping

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We have read with great interest the article by Iszy et al. concerning the video-assisted treatment of hyperhidrosis [1].

Primary palmar hyperhidrosis (PH) is a condition characterized by oversecretion of the eccrine sweat glands, resulting in heavy sweating in the palms. PH has a strong negative impact on social and professional life. The therapeutic options for the management of hyperhidrosis have traditionally been non-surgical. These include topical antiperspirants, anti-cholinergic drugs, iontophoresis and, more recently, botulinum toxin injections. These methods seldom give sufficient relief, their effects are transient, compliance rates are low and they are not associated with side effects. Since the open surgical procedures are unattractive [2], there is interest in improving
surgical management using modern minimally-invasive techniques [3]. Thoracoscopic sympathectomy is, actually, a safe and effective method of managing these patients but controversy remains regarding surgical procedures as follows:

1. Sympathectomy level: sectioning at the level of the second (T2), third (T3) and fourth (T4) posterior costal arches.
2. Techniques for VATS: chain resection, transection, cauterization or clipping.
3. The occurrence of postoperative compensatory hyperhidrosis (CH) which remains an untoward and common problem.

Irrespective of the level of sympathectomy, clipping allows a potential advantage in terms of reversibility in case of compensatory oversecretion, although this was not observed in our series of 25 patients. In our institution, unlike the resection procedures reported by Ishy et al. [1], in all cases we performed a three-level clipping sympathectomy, as the axillary and palmar hyperhidrosis were always associated. Moreover, we prefer double-stage surgery, due to potentially lethal complications reported in the literature with the single-stage technique [4]. In conclusion, based on our complications rate and CH of 0% at 24 months, we support the hypothesis that the best treatment for PH is double-stage three level clipping.

References