

Evaluation of the quality of life of patients with primary hyperhidrosis submitted to videothoracoscopic sympathectomy

Avaliação da qualidade de vida de pacientes portadores de hiperidrose primária submetidos à simpatectomia videotoracoscópica

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ABSTRACT

Objective: to evaluate the quality of life of patients undergoing video-assisted thoracoscopy for primary hyperhidrosis. **Methods:** we evaluated the patients who underwent thoracoscopic sympathectomy to treat primary hyperhidrosis by the team of thoracic surgery at the University Hospital Gaffrée and Guinle – UNIRIO between July 2004 and August 2013. It was applied a questionnaire about quality of life related to hyperhidrosis since preoperative period until one year after the surgery. **Results:** one hundred twenty two patients answered the questionnaire, with a mean age of 25 years, 57% of whom were women. In relation to severity of primary hyperhidrosis, 83% of the patients reported as tolerable or somewhat tolerable associated with major limitation of quality of life, which it was poor or very poor in 82% of cases. Postoperative compensatory hyperhidrosis occurred in 78% of patients, but it was regarded as invisible or barely noticeable for 85% of these patients, classifying it as acceptable. In 15% of patients, the compensatory sweating was classified as disruptive. **Conclusion:** thoracoscopic sympathectomy improves the quality of life of patients with primary hyperhidrosis. The transitional compensatory hyperhidrosis occurred in most patients, but did not improve significantly the quality of life.

Keywords: Hyperhidrosis. Sympathectomy. Quality of Life.

INTRODUCTION

Hyperhidrosis is a pathological condition characterized by excessive sweating, higher than that necessary for thermal regulation. It can be classified as primary and secondary¹: primary hyperhidrosis does not have a known cause and is associated to overactivity of sympathetic nervous system. Secondary hyperhidrosis may be caused by infection, use of antidepressants, neurologic disturbances, stress, obesity and diabetes¹. Usually, primary hyperhidrosis is symmetrical and affects in particular armpits, hand palms and soles². It may cause quality of life impairment, affecting daily social and physical activities, and psychologic problems³.

In order to improve quality of life of patients with hyperhidrosis, several treatments were developed, palliative or definitive, clinical or surgical², but most of them have failures and complications³. Among palliative treatments, it is included the use of antiperspirants, iontophoresis, anticholinergic

drugs and local injections of botulinum toxin^{4,5}. Videothoracic laparoscopic sympathectomy is an invasive method for definitive treatment, used in patients with primary hyperhidrosis, sectioning sympathetic thoracic branch nerves. It is fundamental to evaluate quality of life of patients before and after videothoracoscopic sympathectomy, since it is common to occur compensatory hyperhidrosis after surgery⁶.

The objective of the present study was to evaluate quality of life related to hyperhidrosis before and after videothoracoscopic sympathectomy, in relation to satisfaction of patients with the surgery, compensatory hyperhidrosis and quality of life.

METHODS

The study was performed at Hospital Universitário Gaffrée Guinle - UNIRIO, in 122 patients submitted to videothoracoscopic

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sympathectomy to treat primary hyperhidrosis, from July 2004 to August 2013, by thoracic surgeons. It was performed the sympathetic section of nerves by electrocoagulation at T3 and T4 levels, always by the same surgeons. Collected data included age, sex, profession, post-operative period of time and presence of compensatory hyperhidrosis. They answered a question form that included questions about quality of life (related to the period before and after surgery) with a score method from 0 to 10. When compensatory hyperhidrosis was present, it was classified as tolerable, quite tolerable or intolerable.

RESULTS

Casuistic included 122 patients who answered the question form during an interview. Mean age was 25 years, 57% women. Evaluation period extended to up to 12 months. In 35.1% of patients, hyperhidrosis was present in one corporal segment, while in 64.9% affected more than one corporal segment, as shown in Table 1.

In relation to severity of primary hyperhidrosis, 83% graded as low tolerable or intolerable associated to great limitation of quality of life (82% poor or very poor quality of life) (Tables 2 and 3).

Compensatory hyperhidrosis was observed in 78% of patients, affecting more than one corporal segment in 83%. In 29.5% it was considered slight (grade I), in 55.7% moderate (grade II) and in 14.7% severe (grade IV) (Table 4).

In relation to satisfaction grade, 88.4% of patients were satisfied with the results of surgery (Table 5).

Table 1. Hyperhidrosis local

Local	n	%
Facial	22	18
Armpit	78	64
Palm	84	69
Sole	18	15

Table 2. Primary hyperhidrosis severity.

Severity	N	%
I- My perspiration was never noted and never interfered in my daily life activities	2	1.6
II- My perspiration was tolerable, and occasionally interfered with my daily activities	20	16.3
III- My perspiration was only tolerable, and usually interfered with my daily activities	44	36.1
IV- My perspiration was intolerable, and always interfered with my daily activities	56	45.9

It was observed transitory intercostal neural pain in 42 (34.4%) of patients; two patients (1.63%) showed residual pneumothorax treated by closed drainage for 24 hours; one patient (0.81%) presented arm paresis that improved during ambulatory follow-up; and seven patients (5.73%) showed global hypoesthesia.

DISCUSSION

Primary hyperhidrosis is a disease that interferes negatively with patient emotional, social and professional aspects, causing lowering of quality of life. Once diagnosed, it should be correctly treated due to negative impact on quality of life, social isolation and prejudice to labor and leisure activities. Video thoracic sympatectomy is safe and

Table 3. Pre-operative quality of life

Condition	n	%
Excellent	0	0
Very good	4	3.2
Good	18	14.8
Poor	66	54.1
Very poor	34	27.9

Table 4. Severity grade comparison of hyperhidrosis

Severity grade	Pre-operative N	Pre-operative %	Post-operative n	Post-operative %
I	2	1.6	36	29.5
II	20	16.3	68	55.7
III	44	36.1	8	6.5
IV	56	45.9	10	8.2

minimally invasive. Literature presents complication such as residual pneumothorax, hemothorax and Claude Bernard Horner Syndrome^{7,8}. One of the main objectives of the treatment is improvement of quality of life, and it is important to access social and psychological aspects of patients' life when proposing a treatment. In 1998 Talaranta⁹ analyzed quality of life following thoracic endoscopic sympathectomy in 51 consecutive patients, and considered the surgery as a promising alternative to conservative treatment of patients with hyperhidrosis and social phobia¹⁰. In the same manner, other authors¹¹⁻¹³ discussed the theme using different measure instruments such as *Dermatology Life Quality Index (DLQI)*¹⁴, *Hyperhidrosis Disease Severity Scale (HDSS)*¹⁵, and the question form Ribas-Milanez¹⁶, that showed improvement of quality of life in 85 to 95% of operated patients. In the present study, it was used the question form proposed by Fiorelli *et al.*¹⁷ to evaluate in the pre- and post-operative periods the results and complications of surgery; also, it was used a questionnaire developed by the same authors to evaluate quality of life.

Table 5. Post-operative satisfaction grade

Satisfaction grade	n	%
Completely satisfied	18	14.7
Very satisfied	62	50.8
Satisfied	28	22.9
Unsatisfied	8	6.5
Very unsatisfied	6	4.9

Wolosker *et al.*¹⁸ evaluated 453 patients regarding quality of life following video thoracoscopic sympathectomy 30 days after the procedure and five years later. They concluded that quality of life improves right after surgery and this improvement persists for more than five years. After 30 days of surgery, 90.9% of patients referred improvement, 6% related no change than previous condition and 3.1% referred worsening. After five years, 90.3% remained improved, 6% unaltered and 3.7% referred worsening, without significant statistical difference during the post-operative period. Our study showed that 88.4% of patients were satisfied, 6.5% partially satisfied and only 4.9% were unsatisfied after treatment.

Similar results were reported by Kaufmann *et al.*¹⁹: 80.2% of patients were totally satisfied, 10.3% partially satisfied and 9.5% unsatisfied with the results of treatment. In relation to side effects of surgery, transitory compensatory hyperhidrosis is one of the most frequent following videolaparoscopic thoracic sympathectomy. Baroncello *et al.*⁶ applied a questionnaire to 51 patients with 32.4 years of median age, being 45 women and 6 men, and observed that compensatory hyperhidrosis occurred in 84.35 of patients. We observed compensatory hyperhidrosis in 78% of patients. Although compensatory transitory hyperhidrosis was observed in most patients, it does not preclude treatment, since it not influenced significantly the improvement of quality of life.

The analysis of our data allows us to confirm that video thoracic sympathectomy improved quality of life of patients with primary hyperhidrosis.

R E S U M O

Objetivo: avaliar a qualidade de vida de pacientes submetidos à simpatectomia por videotoroscopia para tratamento de hiperidrose primária. **Métodos:** foram avaliados os pacientes submetidos à simpatectomia por videotoroscopia para tratamento de hiperidrose primária pela equipe de cirurgia torácica do Hospital Universitário Gafrée e Guinle-UNIRIO entre julho de 2004 e agosto de 2013. Foi aplicado um questionário sobre qualidade de vida relacionada à hiperidrose desde o pré-operatório até um ano após a operação. **Resultados:** o questionário foi aplicado em 122 pacientes com média de idade de 25 anos, sendo 57% mulheres. Quanto à severidade da hiperidrose primária, 83% dos pacientes referiam como pouco tolerável ou intolerável, associada com grande limitação da qualidade de vida, sendo esta pobre ou muito pobre em 82% dos casos. No pós operatório a hiperidrose compensatória ocorreu em 78% dos pacientes, entretanto foi considerada como imperceptível ou pouco perceptível por 85% destes pacientes, classificando-a como aceitável. Em 15% dos pacientes a hiperidrose compensatória foi classificada como perturbadora. **Conclusão:** a simpatectomia videotoroscópica melhora a qualidade de vida dos pacientes com hiperidrose primária. A hiperidrose compensatória transitória ocorreu na maioria dos pacientes, mas não alterou de maneira significativa a melhora da qualidade de vida.

Descritores: Hiperidrose. Simpatectomia. Qualidade de Vida.

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