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Assessment of self-esteem and psychological aspects in patients undergoing upper blepharoplasty

Avaliação da autoestima e aspectos psicológicos em pacientes submetidos à blefaroplastia superior

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Abstract

Objective: *To evaluate the self-esteem and quality-of-life outcomes in patients undergoing upper blepharoplasty.* ***Methods:*** *A cross-s-sectional study was performed at Federal University of São Paulo. The self-esteem and quality-of-life of 29 patients undergoing upper blepharoplasty were compared with 20 age-matched volunteers from the general population. During preoperative assessment, the patients and volunteers underwent complete ophthalmological examinations and answered two questionnaires: the Rosenberg self-esteem scale (RSES) and the World Health Organization quality of life assessment (WHOQOL-BREF). The RSES is a ten-item questionnaire developed to measure self-esteem that are answered using a four-point scale. The scores range from 0 to 30, and lower scores indicate higher self-esteem. The WHOQOL-BREF is composed of 26 questions divided into four domains. Mean values greater than 5 are considered indicative of very good quality-of-life. Data from the RSES and quality-of-life scores were compared between the two groups using an unpaired t- test.* ***Results:*** *The mean self-esteem scores for the patients and volunteers were 10.31 ± 0.71 and 6.9 ± 0.99, respectively (p < 0.001). The mean response scores for the WHOQOL-BREF questionnaire for the patients and volunteers were 3.67 ± 0.08 and 3.76 ± 0.08, respectively (p = 0.449). For the psychological subscale of the WHOQOL-BREF questionnaire, the results for the patients and volunteers were 3.52 ± 0.09 and 3.78 ± 0.08, respectively (p = 0.041).* ***Conclusions:*** *Subjects who underwent upper blepharoplasty exhibited worse self-esteem based on the RSES. Regarding quality-of-life, as assessed using the WHOQOL-BREF questionnaire, significant differences between the groups were evident in the psychological aspects subscale. Our study confirms the importance of subjecting patients to psychological evaluation prior to upper blepharoplasty.*

Keywords: *Blepharoplasty; Quality of life; Self-concept; Surveys & questionnaires*

Resumo

Objetivo: Avaliar os resultados de autoestima e qualidade de vida em pacientes submetidos à blefaroplastia superior. **Métodos:** Um estudo transversal foi realizado na Universidade Federal de São Paulo. A auto-estima e a qualidade de vida de 29 pacientes submetidos à blefaroplastia superior foram comparadas com 20 voluntários pareados para idade. Durante a avaliação pré-operatória, os pacientes e voluntários foram submetidos a exames oftalmológicos completos e responderam a dois questionários: a escala de auto-estima de Rosenberg (RSES) e a avaliação da qualidade de vida da Organização Mundial de Saúde (WHOQOL-BREF). O RSES é um questionário de dez itens desenvolvido para medir a auto-estima que são respondidos usando uma escala de quatro pontos. Os escores variam de 0 a 30, e os escores mais baixos indicam maior auto-estima. O WHOQOL-BREF é composto por 26 questões divididas em quatro domínios. Os valores médios acima de 5 são considerados indicativos de uma boa qualidade de vida. Os dados da RSES e os escores de qualidade de vida foram comparados entre os dois grupos usando um teste de t-teste não pareado. **Resultados:** Os escores médios de auto-estima para pacientes e voluntários foram de 10,31 ± 0,71 e 6,9 ± 0,99, respectivamente (p <0,001). Os escores de resposta média para o questionário WHOQOL-BREF para pacientes e voluntários foram de 3,67 ± 0,08 e 3,76 ± 0,08, respectivamente (p = 0,449). Para a subescala psicológica do questionário WHOQOL-BREF, os resultados para pacientes e voluntários foram 3,52 ± 0,09 e 3,78 ± 0,08, respectivamente (p = 0,041). **Conclusões:** Aqueles submetidos à blefaroplastia superior apresentaram menor auto-estima com base na RSES. Quanto à qualidade de vida, avaliada utilizando o questionário WHOQOL-BREF, diferenças significativas entre os grupos foram evidentes na subescala de aspectos psicológicos. Nosso estudo confirma a importância de submeter os pacientes à avaliação psicológica antes da blefaroplastia superior.

Descritores: Belfaroplastia; Qualidade de vida; Autoimagem; Inquéritos e questionários

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Introduction

Ocular diseases and eyelid disorders can negatively impact vision-related quality-of-life, and treatment may help to improve patients' self-esteem.[1-8] Blepharoplasty is performed for surgical eyelid rejuvenation.[9] This type of surgery is one of the most commonly performed procedures in the field of plastic surgery and can improve eyelid age-related changes.[9] The results are typically associated with good cosmesis and can impact quality-of-life. However, achieving patient satisfaction can be challenging in some cases.[10]

Despite the increasing number of blepharoplasty surgeries being performed, few studies have examined the psychological aspects of patients undergoing this procedure. Previous studies have suggested that certain types of psychological problems could occur more frequently in patients who undergo this type of surgery compared with the general population.[11] Some studies indicate that 30 to 70 % of patients seeking cosmetic surgery displayed some type of psychiatric disorder.[12-16] Sarwer et al.[17,18] observed that 7 % of patients undergoing cosmetic surgery had body dysmorphic disorder.

An important challenge in clinical practice is determining how to best evaluate the self-esteem and quality-of-life of patients who undergo cosmetic surgery The idea that the patients perception of his/her own health should be considered when evaluating the effectiveness of medical treatment has increasingly been accepted, particularly in the field of plastic surgery, in which psychological aspects are important components of the results.

The purpose of this study was to evaluate the self-esteem and quality-of-life aspects of patients undergoing upper blepharoplasty compared with a control group of patients who did not desire eyelid cosmetic surgery.

Methods

This comparative case series adhered to the tenets of the Declaration of Helsinki and was approved by the Institutional Review Board of the Federal University of São Paulo. In addition, written informed consent was obtained from all participants.

Patients

We prospectively enrolled 49 individuals diagnosed with dermatochalasis, defined as an excess of skin in the eyelid.[19, 20] Among the patients, 29 underwent upper blepharoplasty, and 20 were volunteers who did not undergo any surgery. All patients in the Surgical Group were referred to our clinics to evaluate dermatochalasis. The Control Group was formed by relatives or the companions of the patients. Although patients in the control group also presented with dermatochalasis, they reported that they were not interested in undergoing an upper blepharoplasty. All patients underwent a complete ophthalmological examination, including medical history, best-corrected visual acuity, slit-lamp biomicroscopy, intraocular pressure measurement, gonioscopy, dilated funduscopic examination and refraction reviews. The exclusion criteria were younger than 60 years old, smoking, and inflammatory diseases; patients who presented with blepharoptosis and previous eyelid surgery were excluded. Patients who were unable to read or who had difficulties understanding the questionnaire instructions were also excluded.

The Surgical Group (SG) was defined as individuals presenting with dermatochalasis who received upper blepharoplasty in the following month. The Control Group (CG) was defined as age-matched individuals with a diagnosis of dermatochalasis, but who reported no interest in undergoing the surgical procedure. All patients with significant visual field impairment were excluded from the study.

The Rosenberg self-esteem scale [21-23]

During the preoperative assessment, all patients and volunteers underwent self-esteem evaluations using the RSES. Self-esteem is defined as the evaluative dimension of the self that includes feelings of discouragement and pride.[24] This scale was translated and validated into Portuguese by Dini[22] and is referred to as the Rosenberg self-esteem scale UNIFESP/EPM (EPM/RSES). The EPM/RSES is a 10-item self-report measure of global self-esteem. Items are rated from strongly agree(0) to strongly disagree(3). The scores range from 0 to 30 with lower scores indicating higher self-esteem. Five questionnaire items are worded positively, and five are worded negatively.

The World Health Organization quality of life assessment (WHOQOL-BREF Questionnaire) [25-28]

All patients and volunteers also underwent a quality-of-life assessment using the WHOQOL-BREF questionnaire.[27, 28] Quality of life was defined by the World Health Organization Quality of Life (WHOQOL) Group as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.[25] This scale consists of 26 questions; there are two general issues regarding quality-of-life, and the remaining 24 questions consist of 4 domains (physical, psychological, social relationships and environment). The physical domain was calculated by adding the values of the facets and dividing by 7. The psychological domain was calculated adding the values of the facets and dividing by 6. The social relationships domain was calculated adding the values of the facets and dividing by 3. The environment domain was calculated adding the values of the facets and dividing by 8. All results are presented as the mean values for both the field and facets.[27,28] Grading was standardized as need to improve (1 to 2.9), regular (3 to 3.9), good (4 to 4.9) and very good (5).[27,28]

Statistical analysis

Descriptive statistics were calculated for the demographic and clinical characteristics of cases and controls. The means and standard deviations (SD) are presented for the normally distributed variables, and medians and interquartile ranges are presented for non-normally distributed variables. We used an unpaired t-test to compare differences in the score data from the EPM/RSES and WHOQOL-BREF questionnaires and the two groups. The 5 subscales of the WHOQOL-BREF questionnaire score were also analyzed using an unpaired t-test to compare the two groups. All statistical analyses were performed with Stata computer software (version 13; StataCorp LP, College Station, Texas, USA). The alpha level (type I error) was set at 0.05.

Results

Of the 49 participants, 29 underwent upper blepharoplasty surgery, and 20 were volunteers who did not undergo any surgery. The mean (± standard deviation) ages of the surgical and control groups were 69.28 ± 1.32 years and 65.05 ± 1.87 years, respectively ($p = 0.063$). The majority of the evaluated patients were women (59 %). Table 1 presents the demographic and clinical variables in the two groups.

Table 1
Demographic and clinical findings in the control and surgical groups

	CG (N = 20)	SG (N = 29)	p-value
Age ± SD (Years)[a]	65.05 ± 1.87	69.28 ± 1.32	0.063
Gender (%)			0.806
Female	16 (32.7 %)	24 (49 %)	
Male	4 (8.1 %)	5 (10.2 %)	
Race (%)			0.164
White	13 (26.5 %)	13 (26.5 %)	
Black	16 (32.7 %)	7 (14.3 %)	
Presence of Comorbidities, such as HTN	5	24	< 0.001
Previous Cataract Surgery	0	12	0.001
Visual Acuity (logMar)	0.08 ± 0.07	0.17 ± 0.11	0.003
Spherical Equivalent, Mean ± SD	1.06 ± 1.38	0.31 ± 1.64	0.054
Average IOP (mmHg)	14.76 ± 2.03	14.00 ± 1.71	0.190
Retinography (Mean Cup to Disc Ratio)	0.39 ± 0.08	0.44 ± 0.12	0.146

Legend: IOP = intraocular pressure; HTN = systemic hypertension

During the self-esteem analysis (EPM/RSES), the mean score in the SG was 10.31 ± 0.71, whereas the mean score in the CG was 6.9 ± 0.99. The difference between the two groups was statistically significant (p < 0.001). The lowest mean value (EPM/RSES score = 4.818) was observed in the CG, and the highest mean value (EPM/RSES = 11.762) was observed in the SG. Figure 1 presents the distribution of the mean EPM/RSES between the two groups.

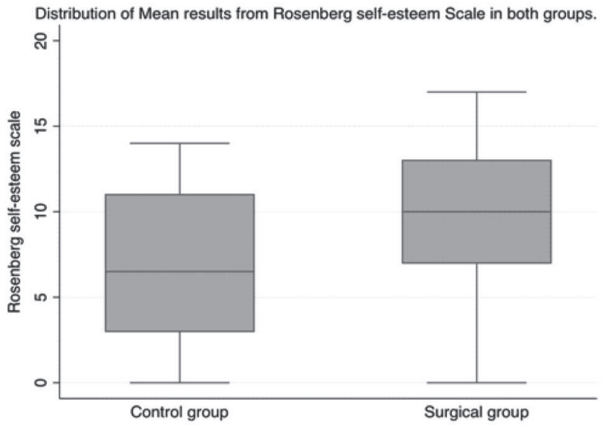

Figure 1: Box plot showing the mean results from the Rosenberg Self-Esteem Scale for the Control and Surgical groups.

The mean score for the WHOQOL-BREF questionnaire was 3.67 ± 0.08 in the SG and 3.76 ± 0.08 in the CG. The between-group difference was not statistically significant (p = 0.449). However, for the psychological subscale, the results for SG and CG were 3.52 ± 0.09 and 3.78 ± 0.08, respectively (p = 0.041). In general, the results for the two groups were normal (e.g., between 3 and 3.9). The results for each subscale of WHOQOL-BREF questionnaire are presented in Table 2.

Table 2
T-test results for the WHOQOL-BREF questionnaire for the Control Group and Surgical Groups

	CG (N = 20)	SG (N = 29)	p-value
Overall result	3.76 ± 0.08	3.67 ± 0.08	0.449
General	4.13 ± 0.14	3.98 ± 0.12	0.442
Physical	3.47 ± 0.08	3.52 ± 0.09	0.647
Psychological	3.78 ± 0.08	3.52 ± 0.09	0.041
Social	3.88 ± 0.14	3.83 ± 0.12	0.771
Environmental	3.53 ± 0.12	3.49 ± 0.09	0.764

Data are mean (± SD)

Exclusively considering question 6 in the psychological subscale of the WHOQOL-BREF questionnaire, which is the question related to self-esteem, the results for SG and CG were statistically significant (p = 0.011). The mean scores were 3.52 ± 0.08 (which indicates regular results for quality-of-life) for the SG and 4.1 ± 0.14 (which indicates good quality of life results) for the CG. Question 6 was "What extent do you think your life has meaning?". The patient was asked to mark one of the following: nothing, very little, more or less, very or extremely.

Discussion

This study demonstrated a significant difference between the self-esteem scores of patients who decided to undergo upper blepharoplasty compared with those who did not undergo surgery. In addition, the most significant quality of life aspect identified in these patients was observed in the psychological subscale, which potentially suggests differences in the psychological profiles of these patients.

The present study is in agreement with previously published studies that observed that individuals who are interested in general cosmetic surgery may have a degree of image dissatisfaction or other body concerns. Connolly et al.[12] analyzed the mental health of the patients who underwent rhinoplasty and found that most of the patients displayed signs of neuroses or schizophrenia. Sarwer et al.[17] studied patients who underwent reconstructive surgery and reported dissatisfaction and preoccupation levels that were consistent with the psychiatric diagnosis of body dysmorphic disorder. In our study, we observed that patients who underwent surgery had lower levels of self-esteem and worse psychological results as measured by a quality-of-life questionnaire. To the best of our knowledge, our study is the first to evaluate both the self-esteem and quality-of-life in patients undergoing upper blepharoplasty.

Some studies used a specific questionnaire to study the degree of dysmorphophobia. [12,17] Body Dysmorphic Disorders (BDD) are a psychiatric diagnosis that are characterized by extreme dissatisfaction and preoccupation with a perceived appearance defect that usually leads to functional impairment.[29,30] Among patients presenting for cosmetic treatments, 7 to 15 % could display some level of BDD.[29,30] This finding is important because patients with these characteristics could potentially not

benefit from upper blepharoplasty, and these patients are associated to a greater extent with high levels of morbidity and mortality, including suicide.[29,30]

In the psychological aspect of the WHOQOL-BREF questionnaire, five topics related to 1) thinking, learning, memory and concentration, 2) self-esteem, 3) body image and appearance, 4) negative feelings and 5) spirituality / religion / personal beliefs were discussed. Therefore, self-esteem was a variable that was evaluated by the WHOQOL-BREF questionnaire as well as the RSES. The significant between-group differences in this parameter identified in both scales can be justified by the fact that a patient who undergoes a cosmetic procedure tends to present with lower self-esteem.

Analyzing the demographic data of the two groups, we noted that the patients in the SG displayed more comorbidities, such as systemic hypertension (24 versus 5), and worse visual acuity (0.17 versus 0.08). These two variables may contribute to a worse result in the self-esteem levels of these patients. However, as systemic hypertension is a non-symptomatic disease and has a high prevalence in the elderly population, we believe that these variables do not interfere with the questionnaire results. In addition, the severity of the dermatochalasis in both group was similar as we excluded patients with visual field impairment, which could interfere with the final results.

The main finding of this study was that surgeons should be aware of the psychological aspects of patients before performing blepharoplasty. Several studies have suggested that successful surgery depends on the personality of the patient.[30] His or her personality could influence the final results and the expectations of the cosmetic outcomes as well as the patient's satisfaction, all of which are important factors in determining surgical success.

Furthermore, it is important to mention that interpersonal and social aspects play important roles in cosmetic surgery. Several studies have reported that patients who desire cosmetic surgery are not only motivated by the physical problem but also by their personality and behavior.[7] In the present study, lower levels of self-esteem (as assessed by EPM/RSES) or lower levels of psychological factors (as assessed by WHQOL-BREF) may have motivated some patients in the blepharoplasty group to undergo the surgical procedure.

The small sample size is one limitation of this study. Moreover, no patient follow-ups were available to compare the long-term results of the blepharoplasty. Finally, education and social levels could influence the patients' answers and consequently the test scores and questionnaire results. In this case, we included patients from Ophthalmic Plastic Surgery Sector of the Federal University of São Paulo, which may have resulted in selection bias in our study, because most of these patients have lower socioeconomic status.

Conclusion

In conclusion, our study demonstrated the importance of psychological evaluation in patients undergoing blepharoplasty. The RSES and WHOQOL-BREF were useful tools to assess differences in self-esteem and quality-of-life, particularly the psychological aspects. Further studies comparing the results before and after blepharoplasty are needed to better assess the self-esteem and psychological aspects of patients.

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