

## Original Article

# Midface-lift patient satisfaction: A 5-year follow-up study

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### ABSTRACT

**Context:** Several studies showed, from the clinical point of view, the advantages of the various techniques and surgical approaches to obtain facial rejuvenation. A few studies have highlighted the satisfaction or not of patients who underwent a traditional facelift; however, a long-term follow-up study measuring patient satisfaction with midface-lift surgery has not been published yet. **Aims:** The aim of this study is to measure individual patient satisfaction with the midface lift, to find out from each patient his/her level of satisfaction 1 and 5 years after the operation and to compare the results to assess the benefits of the surgery. **Background:** Several studies showed, from a clinical point of view, the advantages of the various techniques and surgical approaches to obtain facial rejuvenation; however, a long-term follow-up study measuring patient satisfaction with midface-lift surgery has not been published yet. **Materials and Methods:** Between January 2005 and January 2010, 163 patients underwent a midface lift. All patients were asked to complete a standardised survey 1 and 5 years after surgery, in order to measure outcomes among facial aesthetic patients. **Statistical Analysis Used:** The paired *t*-test. **Results:** All patients reported an improvement as a result of the midface lift. Statistically significant differences in judgement criteria were found for malar eminence and nasojugal groove. Almost all of the patients turned out to be completely satisfied with their appearance with the new look. **Conclusions:** Patients were extremely satisfied with their decision to undergo a midface lift and with the outcomes and quality of life following the procedure.

### KEY WORDS

Facial rejuvenation; midface lift; satisfaction; survey

### INTRODUCTION

The best way to perform a facelift is a matter of debate, and there is even greater controversy when it comes to the best way to address the midface.<sup>[1-3]</sup>

In literature, there are several studies that showed, from the clinical point of view, the advantages of the various techniques and surgical approaches to obtain the facial rejuvenation.<sup>[4]</sup>

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It has been stated that patient satisfaction is the predominant factor for determining success in aesthetic surgery.<sup>[5,6]</sup>

Few studies have highlighted the satisfaction or not of patients who underwent a traditional facelift;<sup>[7-9]</sup> however, to the best of our knowledge, a long-term follow-up study measuring patient satisfaction with midface-lift surgery has not been published yet. Our study was designed to measure individual patient satisfaction with the overall experience of a traditional facelift and a midface lift, in order to find out from each patient their level of satisfaction 1 and 5 years after the operation, and to compare the results to assess the benefits of the midface lift.

## MATERIALS AND METHODS

Between January 2005 and January 2010, 163 patients, aged between 41 and 67 years (average age, 48 years), underwent a midface lift performed by the same surgeon (Michele Pascali). Patients were 126 females and 37 males. Informed consent was signed by each patient. The Institutional Review Board approval was not acquired being a retrospective study involving the collation of existing data; however, the principles outlined in the Declaration of Helsinki have been followed. The patients who had already undergone a facelift were excluded from the sample [Table 1].

Two different techniques were used, at the discretion of the surgeon, based on the initial clinical condition, in order to obtain the best result for the patient. For the first group, consisting of 116 patients, the midface flap, after being adequately released, was anchored either to the strong temporal aponeurosis; in the second group, consisting of 47 patients, the midface flap was anchored directly to the lower orbital rim bone.

**Table 1: Patient demographics**

Number of patients	163
Sex (%)	
Male	37 (22.7)
Female	126 (77.3)
Age (years)	
Range	41-67
Mean	48
Technique	
1	116
2	47

All patients were asked to complete a standardised survey 1 and 5 years after surgery, in order to measure outcomes among facial aesthetic patients. The questionnaire is a patient-reported outcome instrument consisting of numerous independently functioning scales designed to measure outcomes among facial aesthetic patients.

### Structure of the survey

The survey includes three sections that investigate the satisfaction with the facial appearance, quality of life and process of care.

In the first section [Table 2] of the midface survey, patients were asked to rate the level of satisfaction with their overall appearance and with the specific areas of interest of the midface (malar eminence, nasojugal groove, nasolabial fold, jowls).

In these questions, we asked patients to express their approval rating giving a score from 0 to 4 (4 = beyond expectation; 3 = very good, 2 = modest, 1 = minimal, 0 = none).

The second section [Table 3] investigated about the quality of life, asking about the social function, psychological well-being, early life impact and ageing appraisal.

The last part [Table 4] of the midface survey asked about the satisfaction with the decision to undergo surgery and the outcome of the procedure.

Each question was to be answered 1 and 5 years after surgery.

### Statistical analysis

The results are mean  $\pm$  standard deviation for statistics; we used the SPSS package version 15 (SPSS Inc., Chicago, IL, USA). Paired *t*-test was analysed. *P* < 0.05 was considered statistically significant.

## RESULTS

All patients reported an improvement as a result of the midface lift [Figures 1-4]. Specifically, 161 patients gave a score >3, of which 77 were satisfied beyond expectations. Only two patients believed they had benefited from modest improvements in the first year after surgery.

The second question focused on patient satisfaction ratings about four separate areas of the face by the

**Table 2: First section midface survey**

	<i>None</i>	<i>Minimal</i>	<i>Modest</i>	<i>Very good</i>	<i>Beyond expectation</i>
Was the appearance of your face improved by the operation?	0	1	2	3	4
Rate the degree of improvement in several anatomic areas of the face and the neck					
Malar eminence	0	1	2	3	4
Nasojugal groove	0	1	2	3	4
Nasolabial fold	0	1	2	3	4
Jowls	0	1	2	3	4

**Table 3: Second section midface survey**

Were you pleased with the appearance of your face?	None - 0 Minimal - 1 Modest - 2 Very good - 3 Beyond expectation - 4
Did you regard your appearance as 'natural'?	Yes No
Do you notice positive changes?	Yes No
Did other people notice that had midface lift surgery?	Yes Family Close friends Casual acquaintance No
Did other people remark about any positive change?	Yes No
How many years of favourable effect do you feel your midface lift has had on your appearance?	

**Table 4: Third section midface survey**

Do you believe that your face still looks better today than if you had not had a midface lift?	Yes No
Are you satisfied with the decision to have done the midface lift?	Yes No

midface lift, 1 and 5 years after the operation. The satisfaction ratings are listed in Table 5.

Statistically significant differences in judgement scores were found for malar eminence and nasojugal groove, and specifically, technique 1 was more efficient in the treatment of malar eminence whereas technique 2 was more efficient in the treatment of nasojugal groove. No significant differences were found for nasolabial fold and jowls.

With regard to the social function, the survey reported the patient's observation of how they, as well as other people, perceived their own midface-lift surgery [Table 6].

The first question of this section asked the patients to rate their satisfaction with the appearance of their face 1 year after surgery. This was done specifically for



**Figure 1:** (a) Preoperative frontal view of a 69-year-old patient. In this case, the midface flap, after being adequately released, was anchored either to the strong temporal aponeurosis. (b) One-year postoperative frontal view of the same patient. (c) Five-year postoperative frontal view of the same patient

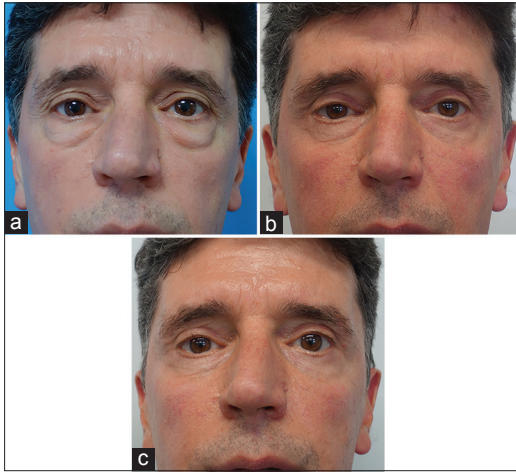
the naturalness of the result, which was reported by themselves and by the others.

Almost all of the patients (156) turned out to be completely satisfied with their appearance with the new look. The remaining seven patients were very satisfied with their appearance after surgery. All of the operated patients were satisfied.

From the results obtained, it can be deduced that the naturalness of the result 1 year after surgery, as well as by themselves, was appreciated by family members and acquaintances for the totality of the sample. In addition, while for the family, the presence of a change was evident, the new acquaintances could not notice the presence of surgery.

Ninety percent of the patients described their appearance as natural and none of the patients believed that their normal appearance was altered unfavourably in any way.

When we asked about whether others noticed that the patients had undergone surgery, 71.9% reported that, apart from the people they saw on a daily basis, all others made



**Figure 2:** (a) Preoperative frontal view of a 47-year-old patient. In this case, the midface flap was anchored directly to the lower orbital rim bone. (b) One-year postoperative frontal view of the same patient. (c) Five-year postoperative frontal view of the same patient



**Figure 3:** (a) Preoperative frontal view of a 65-year-old patient. In this case, the midface flap, after being adequately released, was anchored either to the strong temporal aponeurosis. (b) One-year postoperative frontal view of the same patient. (c) Five-year postoperative frontal view of the same patient

**Table 5: Results of the first section of midface survey**

Scale	1		2		3		4	
	1 year after surgery	5 years after surgery	1 year after surgery	5 years after surgery	1 year after surgery	5 years after surgery	1 year after surgery	5 years after surgery
General appear	0	0	2	4	104	101	57	58
Malar eminence	0	0	24	33	98	96	41	34
Nasojugal	0	0	14	29	107	101	42	33
Nasolabial	0	2	53	61	76	70	34	30
Jowls	0	2	62	65	75	73	26	23

**Table 6: Results of the second section of midface survey**

	0		1		2		3		4	
	1 year after surgery	5 years after surgery	1 year after surgery	5 years after surgery	1 year after surgery	5 years after surgery	1 year after surgery	5 years after surgery	1 year after surgery	5 years after surgery
Pleasure with the new appearance	0	0	0	0	16.3%	13.4%	40.3%	48.8%	43.4%	37.8%
Natural appearance							+			-
1 year after surgery							85.6%			14.4%
5 years after surgery							98.4%			1.6%
Positive changes							+			-
1 year after surgery							87.7%			12.3%
5 years after surgery							84.9%			15.1%
Age appraisal (years)										
Range										8-13
Mean										11.3

positive remarks about the operation, after the initial surgery swelling subsided. In addition, new acquaintances did not notice that they had undergone a midface lift.

On an average, patients felt they appeared 11.3 years younger than their actual age, with 88.8% believing they appeared at least 13 years younger than their actual age.

Finally, in the third section of the survey, all of the patients reported high satisfaction with the decision

to undergo surgery and with the outcome of the procedure [Table 7].

When we repeated the questionnaire, 5 years after surgery, we found a high rate of patient satisfaction as indicated in Tables 5-7.

## DISCUSSION

The evolution of the modern midface lift is well documented by Paul *et al.* in their work.<sup>[4]</sup> A wide variety



**Figure 4:** (a) Preoperative frontal view of a 55-year-old patient. In this case, the midface flap was anchored directly to the lower orbital rim bone. (b) One-year postoperative frontal view of the same patient. (c) Five-year postoperative frontal view of the same patient

**Table 7: Results of the third section of midface survey**

Do you believe that your face still looks better today than if you had not had a midface lift?	
Yes	
1 year after surgery	100
5 years after surgery	97.3
No	
1 year after surgery	0
5 years after surgery	2.7
Are you satisfied with the decision to have done the midface lift?	
Yes	
1 year after surgery	100
5 years after surgery	100
No	
1 year after surgery	0
5 years after surgery	0

of midface-lifting techniques have now been described, and each author has reported specific indications for every different procedure. To explain the plethora of recent literature on midfacial rejuvenation, it is often said that although there are many ways to combat a single problem, no single method provides the ideal solution.<sup>[10]</sup> Instead of one technique being superior to another, it is likely that a competent experienced surgeon can produce a satisfactory result in an appropriately selected patient using one of the several techniques.

In 2003, Ching *et al.* published an extensive review of the literature regarding outcome measurement techniques for aesthetic surgery.<sup>[11]</sup>

As with some other authors,<sup>[12-20]</sup> but with a different approach, the senior author considers that only

subperiosteal dissection of the facial soft tissues and upwards repositioning allow an efficient, natural, harmonious and longer lasting result. This technique produces a composite flap, containing all the soft tissues of the midface area that is repositioned *en bloc*. It allows elevation of a thicker layer of tissues, thereby achieving a outcome similar to that created by a malar implant, and effectively corrects a sunken palpebral area.<sup>[21]</sup> Moreover, it moderately elevates the lip commissures, by repositioning the superior insertions of the upper elevator muscles of the lip, in particular the most lateral ones (zygomaticus major and minor muscles).

A few studies have highlighted the level of satisfaction of patients who underwent a traditional facelift; however, a long-term follow-up study measuring patient satisfaction with midface-lift surgery has not been published yet.

We decided to develop a study of patient satisfaction after midface-lift surgery.

In the absence of a tested and validated instrument for midface-lift outcome study, we set out to create our own questionnaire for the survey. We designed the study to evaluate patient satisfaction in the first year after surgery and at a 5-year follow-up after surgery. With the multiple choice format, we asked patients to assess the degree of improvement in the overall appearance and in four different anatomical areas of the face addressed by the operation, in an attempt to determine patient satisfaction of the surgical technique.

The questionnaire attempted to measure patient satisfaction, with multiple questions addressing the same issue from different viewpoints. We inquired about self-assessment of the apparent improvement in appearance, which reported the degree of personal satisfaction and the feedback from other observers.

We asked about the psychological impact after surgery and related problems in the resumption of normal daily activity.

Finally, the last part of the midface survey asked about the level of satisfaction about the decision to undergo surgery and the outcome of the procedure.

The results of the present study show high patient satisfaction with overall facial appearance, malar eminence, nasojugal fold, nasolabial folds and jowls.

Confidence and psychological well-being after the face lift were also rated high. Family and close friends certainly noticed in the first few post-operative days that the patients had undergone surgery. A high percentage of patients reported that others made positive remarks about the operation whereas no negative comments were made with regard to the patient's midface lift.

The main temporary consequence was the duration of oedema and resultant facial distortion during the early post-operative period (2–3 weeks on average). In most cases, 3 weeks were required for patients to recover a near normal facial appearance, and 6–8 weeks were required to achieve a satisfactory result and a return to a daily routine.

An artificial appearance was evident only during the immediate post-operative period (3–4 weeks); this effect is regarded quite normal, considering the extensive repositioning of the tissues.

The rigidity sensations improved from weeks 3 to 10.

The process of returning to a normal social life began from the 3<sup>rd</sup> post-operative week, and all patients achieved this goal within 5 weeks.

Patients felt that they appeared 11 years younger on average (ranging from 8 to 13 years).

Finally, although patient satisfaction was high, the evaluation of prospective data may allow us to focus on areas where satisfaction was lower, in order to refine techniques and improve outcomes.

This study makes no attempt to establish the relative efficacy of the midface lift technique compared with any other technique. In fact, the sole purpose is to assess satisfaction after face lifting in general, using a validated questionnaire, because to our knowledge, a long-term follow-up study measuring patient satisfaction with midface-lift surgery has not been published yet.

In this study, the patients knew that their responses were anonymous. The E-mailed responses were collated

without any knowledge of the origin of individual responses and without communicating any information about the responses to the authors.

The responses might have been more positive if the patients had thought their surgeon would see or receive information about their answers.

## CONCLUSIONS

Midface lift is one of the greatest technical evolutions in facial surgery.

Patients who responded in this study were extremely satisfied with their decision to undergo a midface lifting and the outcomes and quality of life following the procedure.

### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

### Conflicts of interest

There are no conflicts of interest.

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