

## Late Results of Endoscopic-Assisted Breast Augmentation

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### ABSTRACT

This article is a retrospective study of the late results of 54 patients subjected to endoscopic-assisted breast augmentation. The period lagging after primary surgery ranged between 3 and 14 years. All cases were operated upon by the first author. Three routes for insertion of the saline filled prosthesis were used in this report: The inframammary (12 patients); the transaxillary (20 patients) and the transumbilical (22 patients). The results showed excellent outcome with patient's satisfaction in 44 patients (81.5%); sagging of the prosthesis in 6 patients (11.1%); mild asymmetry in 3 patients (5.5%) and deflation of the saline implant in one patient (1.9%). The results were discussed and it was concluded that the endoscopic-assisted breast augmentation is a safe and versatile technique with very good late results.

### INTRODUCTION

The first author published his first case of endoscopic transumbilical augmentation mammoplasty in 1996 [1]. Since that time; he used endoscopic-assisted techniques in breast augmentation through different routes: The inframammary; the transaxillary and the transumbilical. The advantages of the endoscopic techniques include: Small incisions in hidden sites; visualization and dissection of the exact plane and pocket for the implant; assure secure haemostasis and allow proper accommodation of the implant [2,3]. However, only the early results are recorded by different authors with scarce reports on the late outcome [4,5].

The present paper is a retrospective study of the late results of patients subjected to endoscopic-assisted breast augmentation.

### PATIENTS AND METHODS

Fifty-four patients subjected to endoscopic-assisted breast augmentation were included in this study. Their ages at the time of the study ranged between 29 and 40 years. The period lagging after primary surgery ranged between 3 and 14 years. All cases were operated upon by the first author. The second author participated in the cases carried out from November 2006 & May 2008 and actively

shared in the retrospective study. Three routes for insertion of the saline filled prosthesis were used in this report: The inframammary (12 patients); the transaxillary (20 patients) and the transumbilical (22 patients). The size of the implant ranged between 325c.c and 450c.c. All prostheses were textured and were inserted in the retro-mammary plane.

For every patient, the symmetry of both breasts; position & sensation of the areola-nipple complex; site of the inframammary fold; consistency of the breasts and the condition of the skin were evaluated. If rupture or leakage of the saline implant was suspected, radiological evaluation including CT scanning were done. Photographs for the every patient were taken from different angles.

### RESULTS

Results are shown in Figs. (1-8) & Table (1).

The results showed very good outcome with patient's satisfaction in 44 patients (81.5%); sagging of the prosthesis in 6 patients (11.1%); mild asymmetry in 3 patients (5.5%) and deflation of the saline implant in one patient (1.9%). The sensation of the areola-nipple complex was intact and equal on both sides in all cases. There was a 2-3cm. difference in the level of the inframammary fold in 4 patients (7.4%). Dilated veins were observed in the skin of the breasts in 7 patients (13%). The consistency of the breasts was like the normal consistency in 48 patients (88.9%), and in 6 patients (11.1%) cracking sensation of the capsule of the implant was felt. In the case with deflation of the implant, the size of the implant was greatly reduced and CT scanning diagnosed the case (Fig. 7). The patient with deflated saline prosthesis was treated with extraction of the prosthesis on both sides and re-breast augmentation using silicone gel implants (Fig. 8). Capsular contracture occurred only in one case (1.9%) three years after surgery and was treated conservatively with massage and corticosteroids.

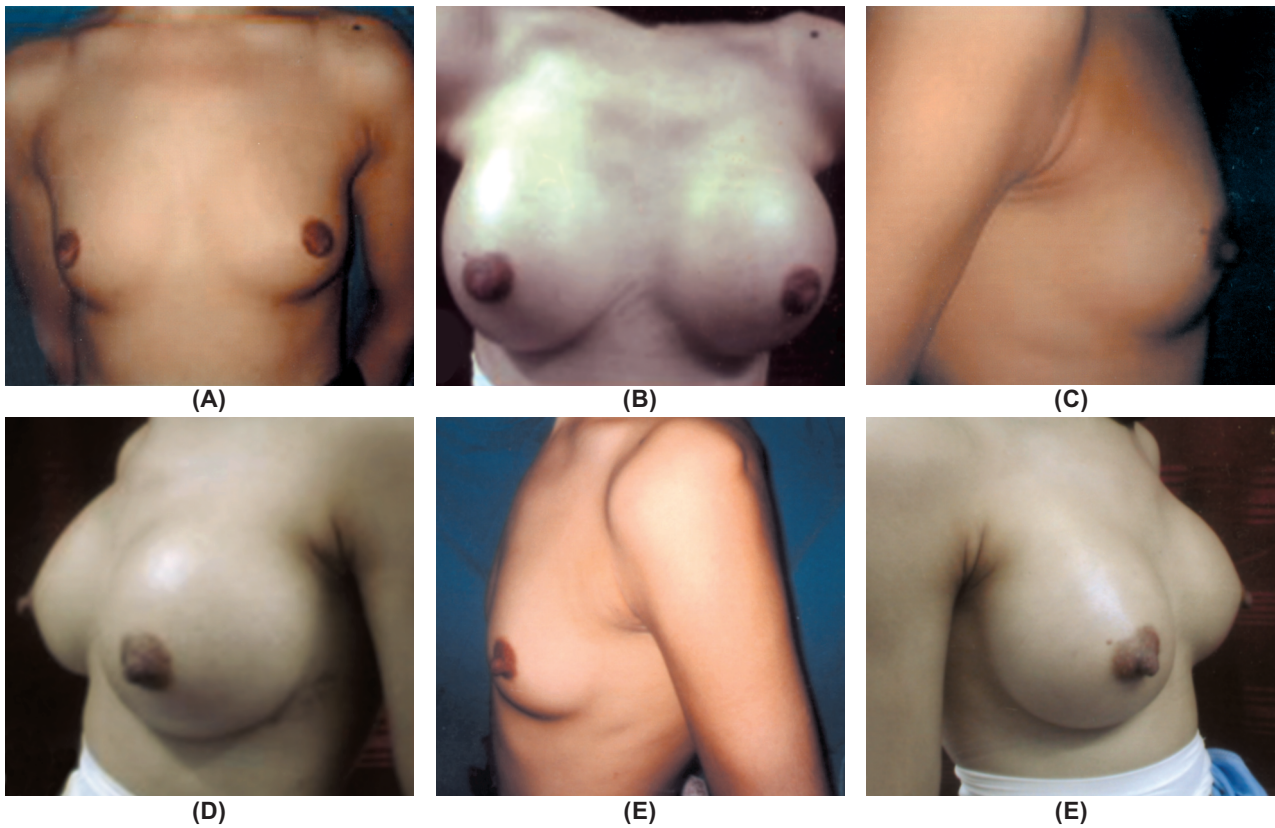


Fig. (1): Inframammary endoscopic-assisted breast augmentation [(A,C,E) Pre-operative and (B,D,F) 3 years post-operative].

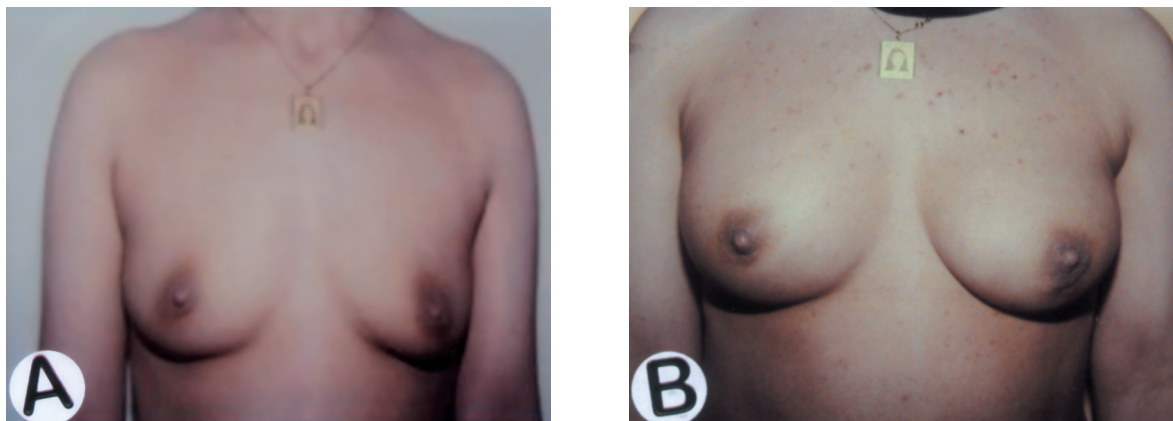


Fig. (2): Transaxillary endoscopic-assisted breast augmentation (A- Pre-operative and B- 7 years post-operative).

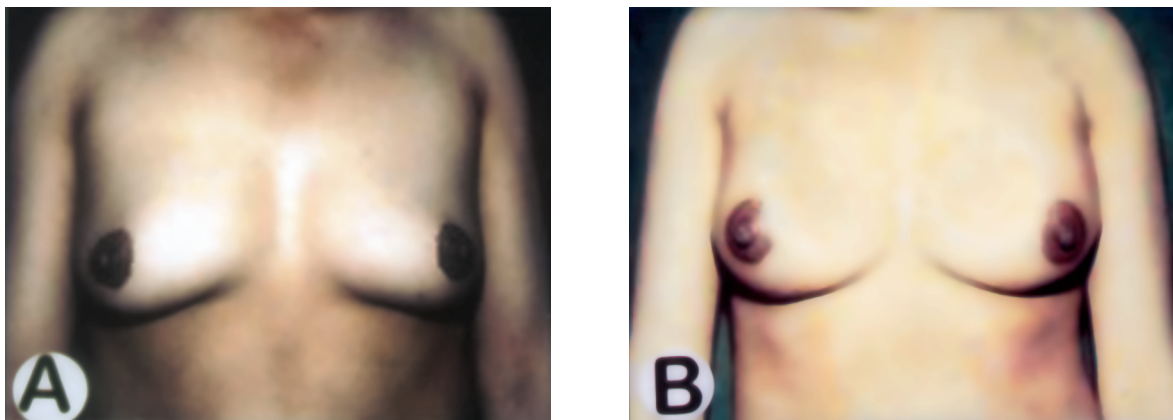


Fig. (3): Transaxillary endoscopic-assisted breast augmentation (A- Pre-operative and B- 5 years post-operative).

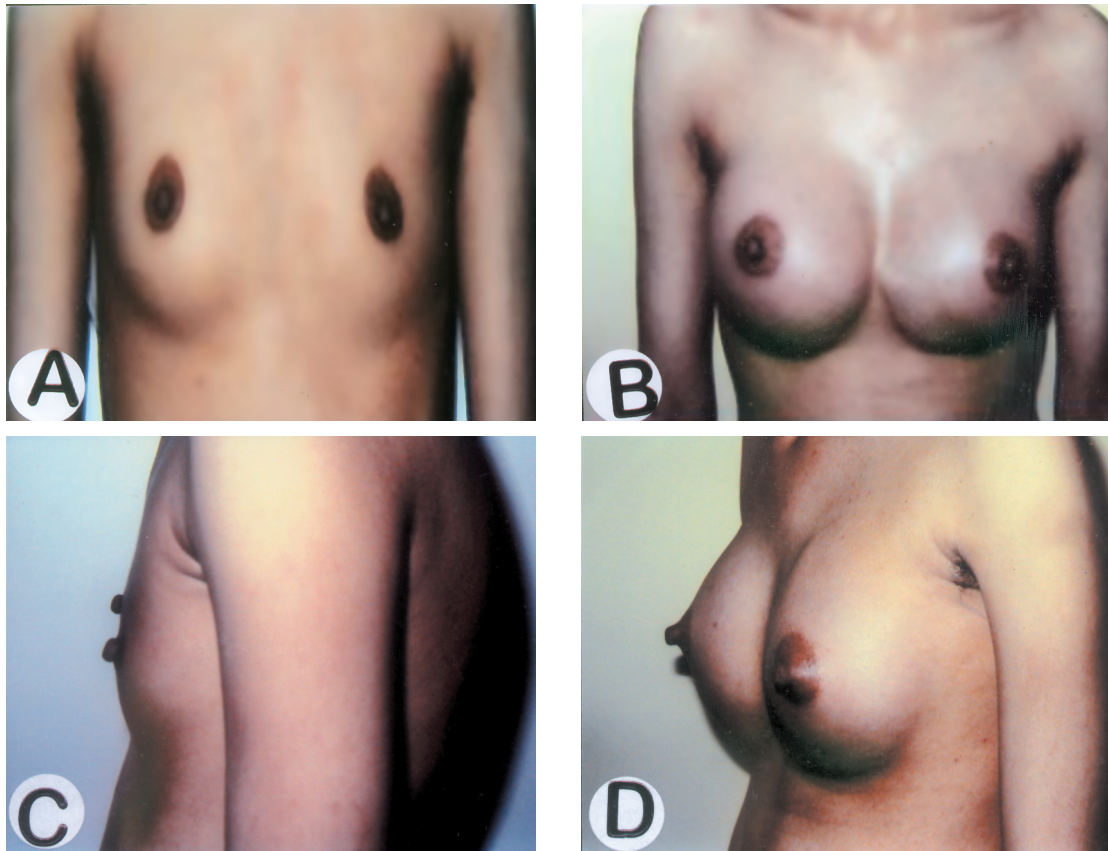


Fig. (4): Transumbilical endoscopic-assisted breast augmentation [(A,C) Pre-operative and (B,D) 5 years post-operative].

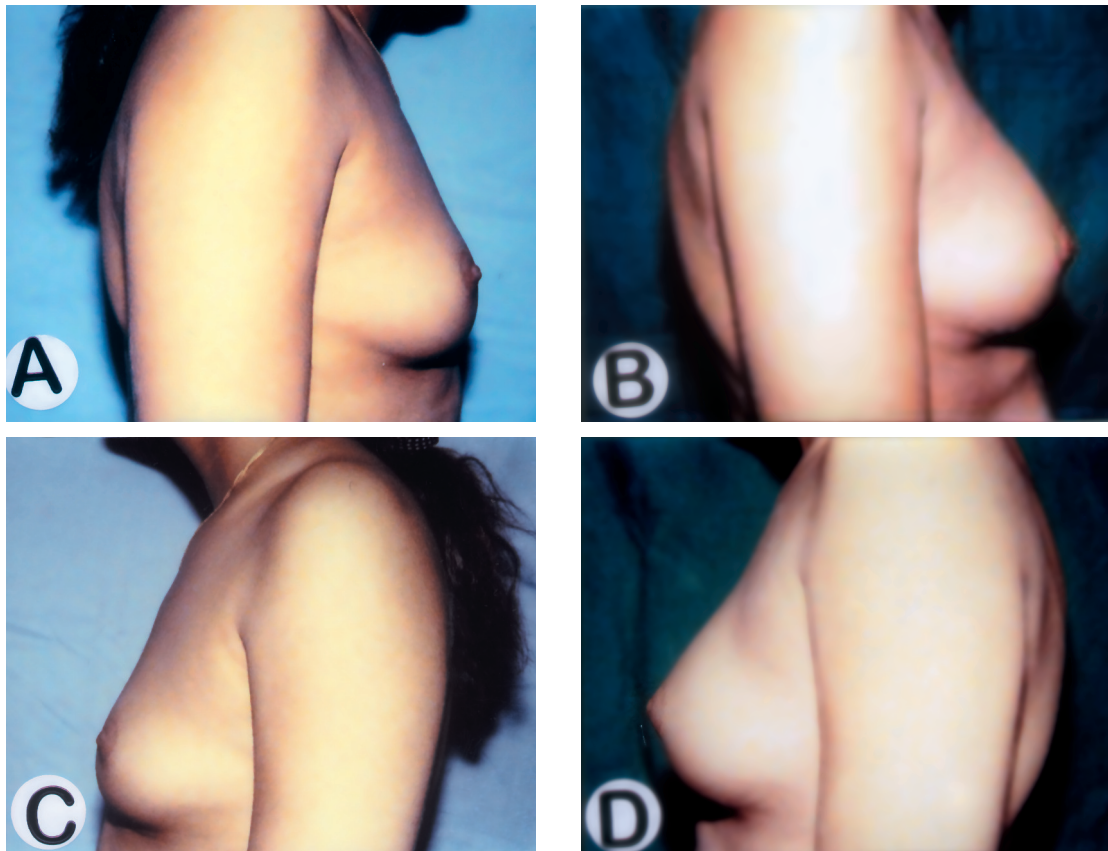


Fig. (5): Transumbilical endoscopic-assisted breast augmentation [(A,C) Pre-operative and (B,D) 5 years post-operative].

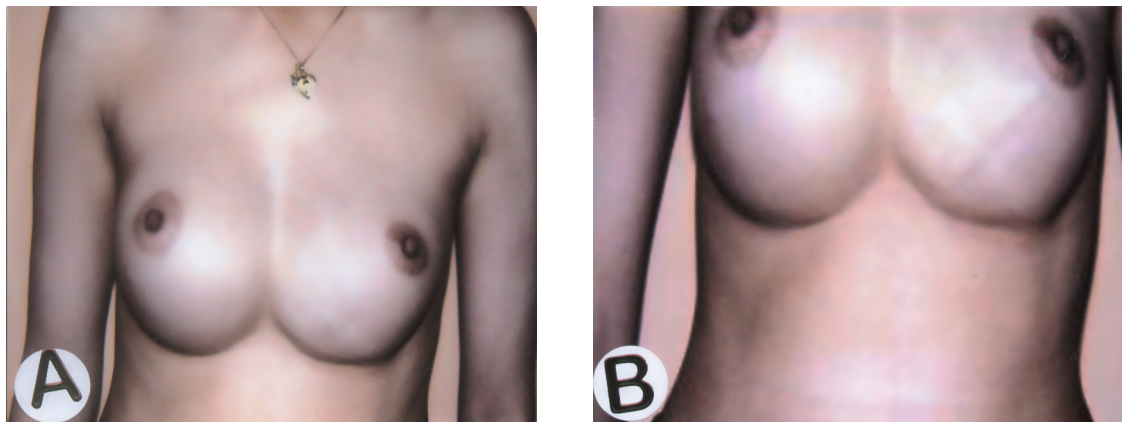


Fig. (6): Transaxillary endoscopic-assisted breast augmentation (A- Early postoperative and B- 7 years later with evident sagging).

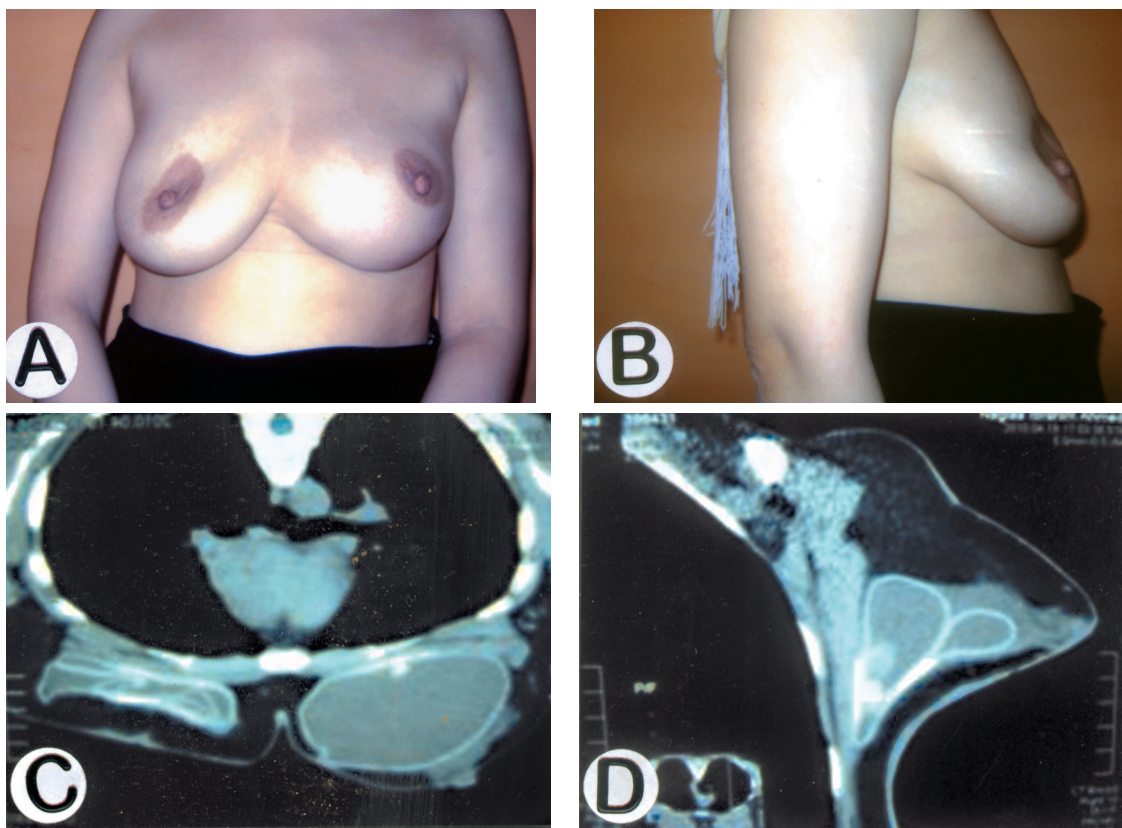


Fig. (7A-D): Transumbilical endoscopic-assisted breast augmentation showing deflation of the right saline prosthesis 14 years post-operative.

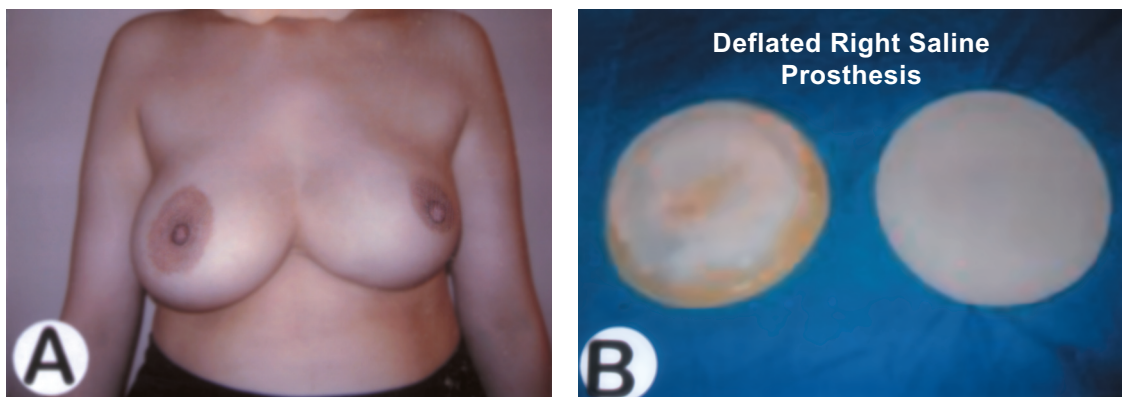


Fig. (8A,B): Re-breast augmentation of case shown in Fig. (7) with bilateral silicone gel prosthesis after extraction of the saline filled implant.

Table (1): Overall late results of endoscopic-assisted breast augmentation.

Very good results with patient's satisfaction	44 patients (81.5%)
Sagging of the saline prosthesis	6 patients (11.1%)
Mild asymmetry of both breasts	3 patients (5.5%)
Deflation of the saline prosthesis	1 patient (1.9%)
Intact & equal sensation of both areola-nipple complex	54 patients (100%)
2-3cm difference in the level of the inframammary fold	4 patients (7.4%)
Dilated veins in the skin of the breasts	7 patients (13%)
Consistency like the normal breasts	48 patients (88.9%)
Cracking sensation of the capsule of the prosthesis	6 patients (11.1%)
Capsular contracture	1 patient (1.9%)

## DISCUSSION

A dominant trend in all branches of surgery nowadays is the minimal invasive techniques which allow the surgeon to operate through small incisions in hidden sites. This trend will accelerate recovery of the patient; decrease the hospital stay and results in cosmetic minimal surgical scars [6,7].

In breast augmentation, achieving this goal is through the remote placement of access incisions as described in the transaxillary and transumbilical endoscopic-assisted augmentation mammoplasty techniques [8,9,10]. This will result in a small hidden scar either in the axilla or the umbilicus according to the procedure. In addition, the endoscopic techniques will allow better visualization and dissection of the exact plane and pocket for the implant; assure secure haemostasis and allow proper accommodation of the implant in its socket [11,12]. The last advantages of the endoscopic techniques can be of great benefit even if the inframammary route is used.

The early results of endoscopic-assisted breast augmentation are reported in the literature [13,14,15]. However, there are few reports in the literature dealing with the late results of these procedures [16,17].

In this article, the late results of endoscopic-assisted breast augmentation were evaluated. The results showed very good outcome in most of the cases (81.5%). The incidence of sagging of the saline prosthesis; breast asymmetry and difference in the level of the inframammary fold were low. This can be explained by the accurate dissection of the pocket and placement of the prosthesis under direct vision and magnification. Also the incidence of capsular contracture was low (1.9%). This may be due to proper haemostasis in the endoscopic-

assisted breast augmentation which decreases the incidence of scar formation with later capsular contracture. Also, it seems that the inert saline inside the prosthesis does not trigger capsular contracture in contrast to the silicone gel implants which can stimulate fibrous tissue formation and capsular contracture [16,17,18].

In addition, dilated veins were observed in the skin of the breasts and the sensation of the areola-nipple complex was equal and intact on both sides. These findings are similar to previous reports [19,20].

In conclusion, the endoscopic-assisted techniques are highly recommended for breast augmentation they have many advantages over other techniques with very good late results, as reported above. The only drawback of endoscopic techniques is that they need training to improve the learning curve.

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