


# Subdermal neo-umbilicoplasty in abdominoplasty

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Received: 14 August 2017 / Accepted: 5 November 2017  
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## Abstract

**Background** Umbilicoplasty is an important surgical procedure in abdominoplasty, regardless of the technique used. An unaesthetic umbilicus often irreversibly affects surgical outcomes. This study describes the experience of our team with the subdermal neo-umbilicoplasty technique and assesses patient satisfaction with the appearance of the new umbilicus.

**Methods** Fifty-eight patients with abdominal deformity underwent abdominoplasty with subdermal neo-umbilicoplasty. Patients were followed up for at least 1 year with photographic documentation, assessment of patient satisfaction, and evaluation of eventual postoperative complications.

**Results** Postoperative complications included one case of shallow umbilicus, four cases of superficial necrosis, and one case of midline deviation. No patient required surgical revision. There was a high level of patient satisfaction with the natural-looking umbilicus.

**Conclusions** Subdermal neo-umbilicoplasty resulted in low postoperative complications and provided a new, natural-looking umbilicus without external scars.

Level of evidence: Level IV, therapeutic study

**Keywords** Umbilicus · Scars · Abdomen · Abdominoplasty

## Introduction

Traditional abdominoplasty is a multi-stage procedure, and umbilicoplasty is one of the most challenging tasks. The umbilicus is the only natural scar on the body and an important anatomical and esthetic feature of the abdominal wall. It usually lies at the intersection of the xiphoid-pubic line and the line joining the anterior iliac crests. Slight variations in height and laterality of the umbilicus are normal and depend on the biotype [1–3]. The umbilicus is a small anatomical landmark with vertical orientation that may undergo changes associated with aging, weight gain, and pregnancy, which may contribute to a widened appearance with a transverse orientation [4].

Several surgical techniques have been used for umbilical reconstruction, especially the traditional umbilical transposition, in which the umbilicus is reattached to the dermal-fat flap [2–12]. The high rate of unesthetic results obtained with the traditional technique of umbilical transposition is related to alterations in the healing process. Hypertrophic scars, wide scars, partial or total necrosis, and umbilical stenosis are common postoperative complications that may affect the esthetic outcome of a well-executed abdominoplasty [3].

The aim of this study was to describe the experience of our team with the subdermal neo-umbilicoplasty technique, in which the new umbilicus is created by applying a subdermal tension to the abdominal flap to form an esthetic depression. Patient satisfaction with the appearance of the new umbilicus was also assessed.

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