

The Dual Plane Tunnel Technique for Abdominoplasty is reducing pain to almost zero.

A prospective study.

Background: The most widely used techniques for abdominoplasty require drains, 2-3 days hospitalization and extensive painkillers administration as it is considered to be quite painful. We would like to introduce a safe surgical technique that minimizes pain and hospitalization to few hours and does not require drains.

Materials & Methods: From May 2010 to Dec 2013, 111 abdominoplasties were performed in Central Clinic of Athens, Greece. Mean age of patients was 45 years (ranging from 22-67y). Follow up was from 1 months to 3.5 years postoperatively.

Surgical technique: 102 operations were performed under general anaesthesia and 9 under local anaesthesia and sedation. The dual plane, tunnel technique involves 2 different planes of dissection: Above the Scarpa Fascia in the lower lateral abdomen, changing the level to the pre-aponeurosis of the infraumbilical midline and epigastrium areas. No dissection was performed at the costal margins. The epigastrium area was dissected as a tunnel of 6 to 8 cm wide up to the xyphoid. All the dissections were performed with the double – leg monopolar electrocautery with no tolerance to any bleeding. In 75 out of 91 patients we performed plication of the rectus fascia with PDS 2/O suture. 20 mg of Ropivacaine 7.5mg was injected to the muscle. No drains were used and all patients were discharged in less than 24 hours. Early mobilization was recommended in less than 6 hours after the operation. Stockings and mechanical pressure were used in all patients.

Patients were asked to fill up a questionnaire which involved the level of pain and the number of painkillers used the first five days postoperatively. The pain was evaluated using the 0-10 scale (0 no pain at all and 10 the worse pain ever). The surgical time, the complications and the satisfaction level were also recorded.

Results: The mean postoperative pain was 0.5 the first day and almost zero the next five days. 72 patients scored 0 to the pain scale in all five days. 61 patients didn't have any pain killer after the operation. 107 patients did not use any painkiller after the third day. The most common used (95%) pain killer was paracetamol 1000mg. Seroma was observed in 9 patients, in 1 patient a very small necrosis area and 2 patients developed keloids. All patients were satisfied by their quick and almost pain free recovery as well as their aesthetic result. The mean operative time was 135min (range 80'-180'). No deep venous thrombosis or pulmonary embolism were observed. 12% of the patients required a minor revision.

Conclusion: The dual plane, tunnel technique in abdominoplasty minimizes dramatically the postoperative pain. The use of drains is considered unnecessary due to the lymphatics preservation. Also the preservation of the area around the costal margin, where all the intercostal nerves are located is dramatically reducing the postoperative pain. Consequently, the patients could mobilize immediately and safely be discharged home the same day reducing the chances for deep venous thrombosis and pulmonary embolism.