

Transcutaneous and transmucosal Serdev sutures for nasal tip refinement, alar base narrowing, and other corrections

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The author describes his experience with the transcutaneous Serdev suture techniques in different aesthetic disproportions of the external nose and in secondary cases. Author's needles are specifically designed for these techniques. Rhinoplasty is part of the beautification process. The cosmetic surgeon should be guided by correct nose proportions, angles, and volumes. Proportional nose is one that fits in 1/3 of the face length. Proper volumes are: thin dorsum, thin tip, narrow alar base. The tip of the nose prominence gives volume to the central face and its position should be in harmony with the beauty triangle (projected cheekbones and chin). The tip should be in the line of the cheekbone prominences. The nasal dorsum should be straight or slightly concave. The best angles are: 90° angle at the tip, 110° nasolabial angle, 30° angle of nostrils to col-

umella, 30° dorsum to profile line. The aim of Serdev suture techniques in beautification rhinoplasty is to improve the above-mentioned aesthetic proportions, volumes, and angles of the nose, adapted to the face. Serdev sutures in rhinoplasty include: tip rotation, refinement of the tip, lower and medial thirds and alar base narrowing.

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Scar less transcutaneous suture lifts and/or tissue augmentation on face

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In temporal SMAS lift the galea, presenting the temporal SMAS will be fixed higher to the temporal fascia; in Medial SMAS lift, the SMAS and buccal fat pad will be fixed to the temporal fascia; in the lower SMAS-platysma lift, the cheek SMAS and the platysma will be fixed to the periosteum of the mastoid retro-auricular; in brow lift, the Serdev fascia of the eyebrow will be fixed higher to upper temporal line; in chin enhancement - the chin soft tissue will be fixed in a circular suture and to periosteum; in breast lift the upper breast tissue and fascia will be fixed to the clavicle; in buttock lift, we make a circular suture to obtain a "bouquet" or bunch of the trabecular system and fibrotic soft tissue that we fix to the Serdev fascia each side. In each area, we can use 2 to 4 skin punctures. The most important idea in the upper face is to lift the lateral face temporally (lateral eyebrow, lateral cantus of eyes and mouth). In art and theatre, faces called "mask of tragedy" and "mask of comedy" are well known and used to express age and status. The concept of scar-less suture lift in face is to turn the "mask of tragedy" into a "mask of comedy", i.e. to lift up "the subcutaneous facial mask" - the SMAS. Since soft tissue and skin are attached to the SMAS, the lifting of the SMAS reflects in

lifting of the face and its most important elements in the same direction. Structuring and positioning different face elements could be used not only in face ptosis of elderly individuals but also aesthetically wrong face angles could enhance a sad look in young patients. Fixing the SMAS in a higher or different position aims repositioning of other structures as well. Changing the position of the SMAS could restore the aesthetic angles, shape and proportions as a basis for beautification and rejuvenation, to give a happy, youthful appearance and a smiling expression not only to the elderly. With young patients the aim of the "temporal SMAS lift" should be beautification, based on face aesthetics. Usually no dressings are necessary. Photographs before and after of face were taken and profile was created and three fourth of the patients approved the aesthetic result. Sequels are very rare. Attention has been paid not to insert hair into the subdermal tissue. Edema and bruising occur in less than 2%. Less than 1% aesthetic disappointment is due to subjective unsatisfactory effect of lifting angles.

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The novel method for facial lymph drainage dynamic status visualization

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Introduction: The lymphatic system (LS) plays an important role in microcirculation and pathogenesis of inflammation. Preserving lymphatics from iatrogenic damage is important to minimize the post-operative complications rate such as edema, swelling, bad scarring etc. Coetaneous lymphatics are located superficially and vessels have a diameter of 0.2-1.0 mm, lymphatic fluid is colorless and the identification of lymphatic vessels during surgery is a difficult task.

Materials & Methods: To visualize the LS, we used the method of near infrared fluorescence imaging (NIR) with indocyanine green (ICG). In the proposed sites of major lymphatic ducts ICG was injected intra-dermally prior to 72 hours before surgery (dosage: 0.05 mg/0.2 ml per injection site). After the injection ICG binds to albumin and is absorbed by the lymphatic system and can be displayed from the tissue depth of 10-12 mm. Lymphatic duct visualization was possible after 20 min from injection. We performed the same injection technique intra-operative after the 3 following facelift surgeries: 1) SMAS-ectomy, with subcutaneous undermining; 2) SMAS plication, with subcutaneous undermining and 3) SMAS-ectomy with the very limited subcutaneous dissection.

Results: The first 2 types of facelift techniques showed no absorption of ICG by the lymphatic vessels, while during the third one we were able to visualize the existence of lymphatic flow in the medial part of midface (from infraorbital rim to submandibular lymph nodes). In this particular case we can assume that subcutaneous undermining can be the major cause of lymph drainage cessation.

Conclusion: This small pilot study cannot sufficiently indicate how different types of facelifts affect lymphatic drainage and for those reason further researches is needed. In addition, our research challenges the theory that the superficial mobilization of the skin flap during facelift is less harmful for the lymphatic system compared with the deeper (sub-SMAS) dissections.

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Flap reconstruction of rectovaginal and rectourethral fistulas: A 20-years experience

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Background: Rectovaginal and rectourethral fistulas can occur secondary to obstetric complications, cancer and radiation, inflammatory bowel disease, and previous surgery. They are highly distressing to the patient and are often refractory to treatment. Flap reconstruction places vascularized tissue between the apertures, creating separation and aiding in healing. This is particularly useful for complex cases refractory to standard techniques.

Aim: The purpose of this study was to investigate the outcomes of flap reconstruction of rectovaginal and rectourethral fistulas in the setting of complicating comorbidities.

Methods: All patients at all Mayo Clinic hospitals who underwent flap reconstruction of a rectovaginal or rectourethral fistula between January 1995 and December 2014 were identified. Patient demographics, surgical indications, and comorbidities were collected. Operative and postoperative data were also collected, including flap type, length of hospital stay, 30-day complications, recurrences, and follow-up time. Operative success was defined as definitive treatment of the fistula without recurrence within 6 months.

Results: There were 59 patients who underwent 66 reconstructions. The 30-day postoperative complication rate was 59.1% across all patients, primarily consisting of infection (13) and dehiscence (11), with only 1 partial flap loss and no mortality. The 6-month success rate was 51.5% across all patients. Patients with fistula secondary to obstetric complications had significantly lower success rates (11.1%, $p=0.031$). There were no other statistically significant differences in outcomes by etiology, history of radiation, flap type, gender, or history of prior repair attempt.

Conclusions: Flap reconstruction remains a valuable treatment option for complex or refractory rectovaginal, rectourethral, and other GI-to-genitourinary or complex genitourinary-perineal fistulas. Many different flaps, including low-morbidity options such as gracilis and Martius-type flaps, can successfully be used as first-line reconstructive options. Despite an initial success rate of 50%, nearly all cases were able to be repaired after a single additional reconstructive procedure. Patients with GI-to-vaginal fistulas due to obstetric complications had significantly lower success rates.

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Robotic Surgery Market Report

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The robotic surgery system market in North America is a clear evidence of the region's inclination towards advanced technologies. This regional market is the highest contributor to the growth of the global robotic surgery systems market. According to the projections of Persistence Market Research, the North America robotic surgery systems market is expected to reach a market value of US\$ 4,000 Mn by the end of 2026, with an exponential CAGR of 12.9% during the forecast period.

Before robotic surgery systems were introduced, most of the prostatectomies (about 95%) were performed with an open incision. Minimally invasive surgery wasn't an option for men needing a prostatectomy even though laparoscopy was available and in use for other types of surgeries. In contrast, presently, more than 85% of the prostatectomies performed in the U.S. are done through robotically assisted minimally invasive surgeries. This shift has also been a part of patients' move towards a cost-effective treatment option.

Obtaining regulatory approvals is not an easy task. When companies modify existing products or develop new products, they must receive

permission from the regulatory bodies of the respective countries. Along with regulatory approvals, robotic surgery systems require additional testing, certification, modification and amendments of their already existing market approvals

When a product is exported to another country, companies may be required to modify their pre-installed systems at various facilities to comply with the revised regulations. This complicates the process of exporting the products, further hindering the demand for robotic surgery systems in foreign countries.

There is also a lot of negative publicity surrounding the use of robotic systems in surgeries. Efficacy and patient safety associated with robotic surgeries has been questioned a number of times in statements by public officials and their concerns may hinder the global acceptance of robotic surgical systems.

This may, in effect result in decreased product demand and a decline in sales revenue. In addition, it could also lead to an increase in the number of product liability claims, irrespective of whether they are relevant.

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