Therefore, we observed and compared VC findings on skin areas often used for flap harvest at a normal body temperature and at a lower temperature.

**METHODS:** Twenty healthy Japanese adults were included in the study. Skin capillaries were observed at lateral thigh, forearm, mid-axillary line, abdomen, and the fingertip using VC (GOKO Bscan-Z), and the findings were recorded for 3 minutes before and after cooling. Ice packs were used to lower the skin temperatures to less than 35°C. By using ImageJ software, we measured the total blood vessel area (by pixels) per visual field, and this number was then divided by the area of the entire visual field (by pixels) to define the percentage of mean blood vessel area (%) for all visual fields. The blood flow velocity (μm/s) was measured using GOKO-VIP software, and the results for both temperatures were then compared.

**RESULTS:** According to the Fitzpatrick skin typing (FST), 11 people were type II, 5 people were type III, and 4 people were type IV. The amount of melanin pigmentation in the skin correlated with the difficulty of capillary observation. Mean skin temperature before cooling was 36.4 ± 0.2°C and 34.5 ± 0.8°C after cooling. Capillary red blood cell movements were captured at all observation points.

From normal temperature to cooling temperature, the mean blood vessel area reduction rates (%) were 63.0% for the lateral thigh, 30.0% for the forearm, 43.3% for the mid-axillary line, 34.9% for the abdomen, and 64.9% for the fingertip.

When comparing normal temperature to cooling temperature, the blood flow velocity (μm/s) reduction rates (%) were 75.7% for the lateral thigh, 55.3% for the forearm, 68.9% for the mid-axillary line, 61.6% for the abdominal skin, and 79.2% for the fingertip after cooling. All comparisons were significantly different with \( P < 0.001 \).

**CONCLUSIONS:** Decrease in skin surface temperature resulted in capillary vasoconstriction and a decrease of capillary blood flow velocity in all areas. When VC is used for flap monitoring, it is important to keep the observation area warm because temperature decrease in the monitored area might result in the false diagnosis of arterial occlusion.

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**Co-Authors:** Jacob B. Hammond, MD, Javier Janbieh, BS, Jack Haglin, BS, Danielle A. Thornburg, MD, Alanna M. Rebecca, MD, MBA, Chad M. Teven, MD

**Affiliation:** Mayo Clinic Alix School of Medicine, Scottsdale, AZ

**PURPOSE:** Lack of financial data regarding procedural reimbursement trends in abdominal wall reconstruction was identified. Analysis of such trends is important to understand the sustainability of current reimbursement models and to ensure adequate reimbursement for reconstructive surgeries moving forward. The purpose of this study was to evaluate monetary trends in Medicare reimbursement rates for 30 abdominal wall reconstruction surgical procedures over a 20-year period (2000–2020).

**METHODS:** The Physician Fee Schedule Look-Up Tool from the Centers for Medicare & Medicaid Services was utilized for each of the 30 included current Procedural Terminology (CPT) codes, and reimbursement data were extracted. The list of CPT codes was compiled prior to data collection in order to ensure a representative and comprehensive analysis of commonly utilized procedural codes. Monetary data were adjusted for inflation to 2020 US dollars utilizing changes to the United States consumer price index. The R-squared, average annual percent change and average total percentage change in reimbursement were calculated based on these adjusted trends for all included procedures.

**RESULTS:** After adjusting for inflation, the average reimbursement for all procedures decreased by 17.8% from 2000 to 2020. The greatest mean decrease was observed for CPT code 49568 (the implantation of mesh or other prosthesis for open incisional or ventral hernia repair or mesh for closure of debridement for necrotizing soft tissue infection, −34.4%). The only procedure with an increased adjusted reimbursement rate throughout the study period was CPT code 20680 (+3.9%). From 2000 to 2020, the adjusted reimbursement rate for all included procedures decreased by an average of 0.88% each year, with an average \( R^2 \) value of 0.80, indicating a stable decline throughout the study period.

**CONCLUSIONS:** After adjusting for inflation, there has been a steady decline in Medicare reimbursement for the included procedures from 2000 to 2020. Increased awareness of these trends by surgeons, hospitals, and policy
Vaginal Stenosis of the Neovagina in Transfeminine Patients after Gender-affirming Vaginoplasty Surgery

Presenter: Aki Kozato, BS
Co-Authors: Subha Karim, BS, Sumanth Chennareddy, BA, Uchechukwu O. Amakiri, BS, Jess Ting, MD, Bella Avanessian, MD, Joshua D. Safer, MD, FACP, FACE, James Eckert, PA-C, Marissa Kent, MD, Rajveer S. Purohit, MD, John H. Pang, MD
Affiliation: Icahn School of Medicine at Mount Sinai, New York, NY

BACKGROUND: Penile inversion vaginoplasty is a safe procedure. However, vaginal stenosis of the neovagina is a possible complication, of which the risk factors have not been described in the literature. This study aimed to identify potential causes of vaginal stenosis of the constructed neovagina, with specific attention toward identifying potentially modifiable behavioral risk factors during the postoperative period.

METHODS: A single-center retrospective chart review was performed on all transfeminine patients who underwent vaginoplasty surgery between January 2016 and September 2020. Surgery type, outcome, revisional surgical history, postoperative dilating habits, medical history, and demographic data were recorded.

RESULTS: Of the 560 primary vaginoplasty cases performed at Mount Sinai, 147 patients underwent 209 revisions. An additional 19 revisions were performed on 17 patients who had undergone primary vaginoplasty with outside providers. Of the 228 total revisions, 161 revisions were performed in the operating room, and 67 were performed in-office. Eighty-three patients underwent 100 revisions for vaginal stenosis, defined as “loss of depth” or internal strictures, with or without introitus or external revisions. Forty-seven patients underwent 50 revisions for introitus strictures or skin bridges, with or without external revisions. Of the remainder, 75 cases were external revisions, such as clitoroplasty, urethroplasty, cosmesis of the labia minora, and three cases were other revisions, such as complications with hair or cysts.

Of those with vaginal stenosis, 61 patients (73.5%) had experienced difficulty with dilation in the postoperative period (OR = 7.92). In comparison, other conditions known to affect wound healing were not as strongly associated with vaginal stenosis: diabetes mellitus (OR = 0.98), history of keloids (OR = 0.84), former smoking (OR = 0.58). Age distributions were similar between those who did and did not develop vaginal stenosis. Mental health morbidity was prevalent among patients who underwent revisional surgery (41%), but was not a significant factor in experiencing difficulty dilating. Median time from primary vaginoplasty to revision was 14 months.

CONCLUSIONS: Gender-affirming vaginoplasty is a safe procedure, but vaginal stenosis of the neovagina occurs at a noninsignificant rate. Patients with neovaginal stenosis were more likely to have experienced difficulty with postoperative dilation than to have traditional risk factors known to affect wound healing. Potential solutions may include: increasing provider awareness and patient education on the importance of consistent postoperative dilation; increasing time spent on setting patients’ expectations of postoperative care during the preoperative stage; increasing time spent on identifying potential barriers to successful dilation both pre- and postoperatively; offering increased in-house behavioral and mental health support during the immediate postoperative period; and increasing awareness of dilation in the transgender community overall to benefit potential patients in the future.

Evaluation of Liposomal Bupivacaine at Split Thickness Skin Graft Donor Sites through a Randomized, Controlled Trial

Presenter: Katie Egan, MD
Co-Authors: Rachel Ann Guest, MD, Lauren M. Sinik, MD, Niaman Nazir, MD, MPH, Martin DeRuyter, MD, Satish Ponnuru, MD, Dhaval Bhavsar, MD
Affiliation: University of Kansas Medical Center, Kansas City, KS

PURPOSE: Split thickness skin grafts are commonly required in reconstructive surgery, particularly in the acute burn population. Donor sites from split thickness skin grafts (STSG) can be painful and in burn patients are often reported to be more painful than the burn injury itself. Liposomal bupivacaine has been described to provide longer