**Introduction:** Breast cancer is the most common malignancy in women, with the lifetime risk in the general female population of 12%. Conversely, males have a lower risk lifetime risks of 0.1%. This is complicated in the transgender population where patient’s assigned birth gender differs from their gender identity, often requiring surgical procedures and hormone supplementation to find congruence with their gender identity. We present a retrospective review of specimen pathology in transgender patients undergoing gender-affirming mastectomies (GAS).

**Methods:** Retrospective analysis of patients who underwent GAS from August 2014 to November 2018 were included in this study. All surgeries were performed by the senior surgeon. The breast tissue specimens were weighed and analyzed via permanent section. Data was analyzed using STATA (StataCorp).

**Results:** 171 patients underwent bilateral, GAS. The average age at the time of surgery was 30.6 [15-64]. Of the 141 patients that responded, the average time they felt gender incongruence was 4.99 years. 111 (64.9%) self-identified as Caucasian, 12 (7.0%) as black, 2 (1.2%) as Pacific Islander and Native American each, 24 (14.0%) as other, and 7 (4.1%) declined to answer. 149 patients (87.1%) were BRCA negative and 22 (12.9%) patients’ status was unknown. 139 patients (81.3%) had been receiving or had received hormone therapy at the time of surgery, 21 (12.3%) had not received hormone therapy, and 11 (6.4%) declined to answer. Of the patients who received hormone therapy, 62 (44.6%) received up to one year of hormone therapy, 67 received between 1 and 5 years (48.2%), and 10 (7.2%) received greater than 5 year of hormone therapy. 147 patient’s breast pathology (294 total samples) were available for study and are summarized in the table below. 83.3% (245 breast samples) had normal findings, 16.0% (47 breast samples) had benign findings, 0.3% (1 breast sample) showed DCIS, 0.3% (1 breast sample) returned with invasive disease. Average mastectomy tissue weight was 463.1g (R: 467.3g and L: 458.7g). Our patient with invasive disease was a 55-year-old transgender male on hormones for two years. Pathology for the right breast was significant for invasive ductal carcinoma, while the contralateral breast tissue was significant for focal atypical ductal hyperplasia.

**Conclusions:** In recent years, transgender cancer screening guidelines have been the topic of much research and debate. Largely due to the artificial hormonal milieu in these patients, understanding the incidence of hormone driven malignancies is of utmost importance. There are scant reports and systematic reviews in the literature on the topic, but no consensus guidelines have been established. Our data supports the pursuit of proper guidelines for transgender breast cancer screening post-operatively.

**199**

**Gender Identity Alters Gaze: The Use Of Eye Tracking To Assess Outcomes In Gender-Affirming Chest Surgery**

**Harsh Patel1, Andre Alcon, MD2, Kelsey McClure, MD3, Randy Sherman, MD1, Dhivya Srinivasa, MD1, Esther A. Kim, MD3**

1Cedars-Sinai Medical Center, Los Angeles, CA, 2UCSF Plastic and Reconstructive Surgery, Los Angeles, CA, 3UCSF Plastic and Reconstructive Surgery, San Francisco, CA

**Purpose:** Outcomes of gender-affirming chest surgery can be variable. Placement of nipple areolar complexes, orientation of scars and amount of tissue removed can drastically affect the aesthetic outcomes of these procedures. Currently, there is limited data on the perception of favorable aesthetic post-operative outcomes. Here, we compared attention and perception of aesthetic outcomes following masculinizing and feminizing gender-affirming chest surgery between people, based on their gender identity.

**Methods:** Thirty-two participants (14 transgender and 18 cisgender) were enrolled and shown sets of post-operative masculinized and feminized chests, along with unlabeled surgery naïve control chest photos for each gender. Each participant was presented with a photo for 12 seconds and attention and gaze were captured using the Tobii X2 60 eye-tracking device. Participants also scored the perceived gender appearance of each photo on a 1-to-5 Likert-type scale ranging from feminine appearing to masculine appearing.

**Results:** Both cohorts consisted of majority female gender identifying participants. On average participants spent 7.03±2.59 seconds fixated on the masculine chest photos and 6.91±2.61 seconds fixated on feminine chest photos.
Transgender participants spent more time evaluating the nipples in the masculinized photos (p = 0.004) yet there was no significant difference in fixation duration on the nipples for the feminized photos (p = 0.205). Cisgender participants were more likely to notice scars in both the masculinized (0.607 vs 0.462 sec, p = 0.026) and feminized (0.113 vs 0.056 sec, p = 0.012) photos, spending more time fixated on this feature. Notably, transgender participants on average perceived post-operative chests as more similar in appearance to the control chests for both masculinized (p=0.002) and feminized (p = 0.014) photos.

**Conclusion:** Our results illustrate how gender identity can affect assessment and perception of the gender appearance of chests following gender-affirming top surgery. These demonstrated differences in areas of attention and ratings of chest gender appearance by gender identity indicate that observer characteristics should be considered in the assessment of gender-affirming chest surgery aesthetic outcome. Comparison of total fixation duration (milliseconds) on nipples and scars for cisgender and transgender participants, for female/feminized (A) and male/masculinized (B) chests, demonstrating increased attention on the scars in both feminized and masculinized photos by cisgender participants. *Statistically significant (p<0.05).

200

Gender Affirming Female To Male Top Surgery: An Effective Treatment For Gender Dysphoria?

Clairissa D. Mulloy, MS1, Jourdain D. Artz, MD1, Silpa Sharma, MPH1,2, Joshua Helm, MS1, Gerhard S. Mundinger, MD, FAAP1,3

1Louisiana State University Health Sciences Center, New Orleans, LA, USA, 2Children’s Hopsital of New Orleans, New Orleans, LA, USA, 3Children’s Hospital of New Orleans, New Orleans, LA, USA.

**Purpose:** Hormonal therapy followed by gender affirming surgery (GAS) are seen as definitive treatments for gender dysphoria. Although there is a paucity of long-term follow-up data on GAS patients, recent literature suggests that transgender (TG) individuals may not experience anticipated improvement in quality of life (QoL) measures with dysphoria resolution. This study aims to determine GAS’s impact on resolution of gender dysphoria as measured by QoL metrics and validated measures of suicidal ideation (SI)/ suicide attempts (SA) in female-to-male (FTM) TG individuals undergoing chest surgery as part of multidisciplinary team (NOLA Transgender) care for TG patients.

**Methods:** Thirty-one FTM patients presenting for GAS masculinizing top surgery completed a preoperative (n=14) and postoperative (n=17) survey related to phase of gender transition, demographics, sexual orientation, gender identity, QoL and SI/SA. The survey included validated questions from multiple sources. All surgeries were performed according to World Professional Association for Transgender Health (WPATH) standards. IRB approval at LSUHSC is currently pending.

**Results:** 25 patients identified as sexually oriented to men and four as non-binary. Ages ranged from 19-50 years (mean 29). Patients reported onset of gender dysphoria at 3-36 years (mean 10). There was no significant difference between pre-operative and post-operative patients with regard to chest dysphoria, Body Uneasiness Test-A, UCLA loneliness scale, SI/SA, daily pain or emotional distress (WPATH), or BREAST-Q forms. However, significant difference existed in the UGDS-F gender dysphoria scale with mean score of 56.1 and 52.3 in pre-operative and post-operative patients respectively (p-value =0.03).

**Conclusion:** For patients, goals of GAS FTM top surgery are highly individualized, both physically and psychologically. Consistent with prior research, QoL measures looking at pain, emotional distress, SI and loneliness in our study showed no difference between pre-operative and post-operative patients with regard to chest dysphoria, Body Uneasiness Test-A, UCLA loneliness scale, SI/SA, daily pain or emotional distress (WPATH), or BREAST-Q forms. However, significant difference existed in the UGDS-F gender dysphoria scale with mean score of 56.1 and 52.3 in pre-operative and post-operative patients respectively (p-value =0.03).