Aesthetic Surgery Journal (ASJ), Aesthetic Plastic Surgery (APS), and Journal of Plastic, Reconstructive and Aesthetic Surgery (JPRAS) from September 2019 to September 2021 were reviewed. PRS and JPRAS use single-blinded review. ASJ and APS use double-blinded review. Original articles, viewpoint articles, review articles, case reports/series, and CME articles were included. Per article, the name and institution of first and senior author were recorded. Author genders were determined using the Gendorize.io as previously described. Doximity 2021 reputation rankings for integrated plastic surgery residency programs were utilized to estimate institutional prestige. Institutional plastic surgery division/department NIH funding was calculated by summing all rewards for full-time faculty as listed on the NIH RePORTER database.

RESULTS: Overall, 2502 articles met inclusion criteria, with 1644 (65.7%) published after single-blind and 858 (34.3%) after double-blind review. Articles reviewed by a double-blinded process tended to have higher rates of male first authors (74.9% vs. 67.4%, p < 0.001), and first (71.2% vs. 50.7%, p < 0.001) and senior (70.3% vs. 49.6%, p < 0.001) authors from non-US institutions than single-blinded. Geographic locations of the first and senior authors were also significantly associated with degree of blinding (p < 0.001). Articles reviewed by single-blinded processes tended to have first (10.2% vs. 2.7%, p < 0.001) and senior authors (10.9% vs. 3.7%, p = 0.009) affiliated with institutions with significantly more NIH funding than those that were reviewed double-blinded. Interestingly, while there was a trend of articles published in single-blinded journals having higher proportions of first (23.9% vs. 10.8%, p = 0.060) and senior authors (26.5% vs. 12.2%, p = 0.061) coming from institutions with Top 20 integrated programs, this just missed statistical significance.

CONCLUSION: Single-blinded review tended to accept more articles authored by women, US institutions, and those with higher NIH funding. While this portends important strides towards gender equity in plastic surgery academia, international authors and those from smaller, less funded and reputable plastic surgery divisions/departments are still disadvantaged. This should signal careful consideration to current peer-review processes to make research opportunities more equitable.

REFERENCES:
1. Okike K, Hug KT, Kocher MS, Leopold SS. Single-blind vs Double-blind Peer Review in the Setting of Author Prestige. JAMA. 2016 Sep 27;316(12):1315-6. doi: 10.1001/jama.2016.11014. PMID: 27673310.
2. Elango M, Asaad M, Kotta PA, Rajesh A, Kaakeh R, Mitchell DT, Tran NV. Gender Disparity in Abstract Presentation at Plastic Surgery Meetings. J Surg Res. 2021 Sep;265:204-211. doi: 10.1016/j.jss.2021.02.010. Epub 2021 May 2. PMID: 33951585.

TRACK: BREAST
Sustaining Breast Reconstruction during a Pandemic: Institutional Review from the United States COVID-19 Epicenter

Presenter: Carter J. Boyd, MD

Co-Authors: Kshipra Hemal, MD, Sruthi Ramesh, Jonathan M. Bekisz, MD, MSci, Ara A. Salibian, MD, Vishal Thanik, MD, Jamie P. Levine, MD, Mihye Choi, MD, Nolan S. Karp, MD

Affiliation: Hansjörg Wyss Department of Plastic Surgery, New York University Langone Health, New York, NY

PURPOSE: Screening, detection, and treatment for cancer faced numerous challenges and delays across the United States and world during the coronavirus disease-19 (COVID-19) pandemic. The effects of this are presumed to extend far beyond the initial peaks of the pandemic, as predictive modeling has suggested that delays in breast cancer screening, diagnosis, and treatment will lead to increases in subsequent breast cancer mortality over the ensuing decade. In our state, there was a strict month-long moratorium on elective consultations, imaging, procedures, and surgeries to preserve healthcare resources and divert personnel and attention to caring for patients with COVID-19 in April 2020. It is important to understand how screening delays created by the COVID-19 pandemic may affect both short-term and long-term oncologic outcomes for patients with breast cancer. Furthermore, it is important to characterize how these delays affected breast reconstruction in these patients. The objective of this study was to quantify the effect of the COVID-19 pandemic on breast cancer screening, primary oncologic breast operations, and subsequent breast reconstruction practices at a single institution situated within the epicenter of the pandemic.

METHOD: A retrospective review of a single academic institution was performed to identify all mammograms,
lumpectomies, mastectomies, and breast reconstruction operations performed from January 2019 through June 2021. Data was extracted from a combination of institutional databases in conjunction with direct electronic health record review. Only index breast reconstructions were included, and by such, revisions or secondary procedures were not included. Wilcoxon signed-rank tests were used to compare the number of total number of mammograms, oncologic, and reconstruction cases between calendar quarters using SPSS Version 25 (IBM Corp., Armonk, N.Y.). Predetermined level of significance was p<0.05.

RESULTS: Mammography volume declined by 11% in March-May of 2020. Oncologic breast surgeries and reconstructive surgeries similarly declined by 6.8% and 11%, respectively, in 2020 compared to 2019, reaching their lowest levels in April 2020. The volume of all procedures increased during the summer of 2020. Mammography volume in June and July 2020 were found to be at pre-COVID-19 levels, and in October-December 2020 were 15% higher than in 2019. Oncologic breast surgeries saw a similar rebound in May 2020, with 24.6% more cases performed compared to May 2019. Breast reconstruction volumes increased, though changes in the types of reconstruction were noted. Oncoplastic closures were more common during the pandemic, while two-stage implant reconstruction and immediate autologous reconstruction decreased by 27% and 43%, respectively. Volume in 2021 will supersede 2020 levels in all categories.

CONCLUSION: The COVID-19 pandemic acutely reduced the volume of breast cancer surveillance, surgical treatment and reconstruction procedures. Despite mask mandates and required COVID-19 preoperative testing, diligent efforts were made to mitigate the decline in volume related to the COVID-19 pandemic. Volume increased beyond baseline levels to make up for the backlog created by the COVID-19 pandemic. The plastic surgery community can learn from these experiences in order to mitigate the impact of future disrupting events.