

routines, we risk a pandemic of devastating setbacks at annual follow-up visits.

DOI: [10.1097/PRS.00000000000008116](https://doi.org/10.1097/PRS.00000000000008116)

Robert J. Reitz III, M.D.

Vikas S. Kotha, M.D.

Jessica R. Gutai, M.S., C.C.C.-S.L.P.

Irene Baus, M.S.S.A., L.I.S.W.-S.

Bridget A. Bona, M.S., C.C.C.-S.L.P.

Anand R. Kumar, M.D.

Edward H. Davidson, M.D.

Cleft and Craniofacial Team
University Hospitals—Case Western Reserve University
Cleveland, Ohio

Correspondence to Dr. Davidson
Case Western Reserve University
11100 Euclid Avenue, Suite 1200
Cleveland, Ohio 44106
edward.davidson@case.edu

DISCLOSURE

The authors have no financial interest to declare in relation to the content of this article.

REFERENCES

1. Ohio Coalition for the Education of Children with Disabilities. For Parents. Marion, Ohio: Ohio Coalition for the Education of Children with Disabilities; 2020. Available at: <https://www.ocecd.org/ForParents.aspx>. Accessed July 10, 2021.
2. Ohio Children's Hospital Association, American Academy of Pediatrics. OCHA and AAP face coverings masking guidelines. 2020. Available at: <https://ohioaap.org/>. Accessed July 10, 2021.
3. Cleft Lip and Palate Association. *Cleft and COVID-19*. London: Cleft Lip and Palate Association; 2020. Available at: <https://www.clapa.com/covid/cleft-and-covid-19/>. Accessed July 10, 2021.

Breast Reconstruction for Cancer Patients in COVID-19 Pandemic

Breast reconstruction is considered an integral aspect of breast cancer treatment and has a well-known positive effect on quality of life. Surgical treatment of cancer has been delayed until evaluation of local circumstances of coronavirus disease of 2019 (COVID-19), adding to reasons why breast reconstruction procedures may have been delayed.¹

In developing countries and middle-income economies, breast reconstruction has had a slow growth; even now, some countries do not cover breast reconstructive surgery, and we were just starting to see progress on the subject in recent years.² We think breast reconstruction should not be abandoned as an important subject in benefits for cancer patients, even during this pandemic.

At our institutions, we continue to offer breast reconstruction surgery, even during the COVID-19 pandemic (Fig. 1). To achieve this, we offer short-recovery

surgical procedures to reduce patient exposure to coronavirus. We even try to favor a same-day surgery approach. This could mean direct-to-implant surgery when feasible or tissue expander placement when a second surgery would be required. We also look for options that reduce patient hospital stay, such as enhanced recovery after surgery protocols; combined anesthesia, with local blockades to reduce the effects of intravenous medications (e.g., nausea and vomiting) to favor shorter hospital stays; and oral intubation to contain aerosolization of virus for the protection of the surgical team.³ Immediate reconstruction will favor less exposure to coronavirus, avoiding at least one subsequent surgery and hospitalization.

There have been reports of thrombosis complications secondary to coronavirus infection.⁴ In this scenario, microsurgery procedures could be delayed until we have more and better knowledge, or at least new data and evidence of perioperative complications in elective microsurgery procedures. When the possibility of radiation was present, or after a shared decision-making approach, we opted for microsurgical free flap reconstruction, a tissue expander would be a better option to delay flap surgery at least 6 months, so we can offer a better safety profile. Offering immediate lymphatic reconstruction would offer higher benefits in these circumstances, to avoid new surgical procedures when possible, in addition to its established benefits.⁵

Nowadays, coronavirus infection considerations should be part of the shared decision-making process, and first consultation could be performed through virtual online options and three-dimensional models, as well as some follow-up consultations. Breast reconstruction should be considered in breast cancer patients even during the actual COVID-19 pandemic, and time will tell which is the best approach. For now, we should be proactive with caution.

DOI: [10.1097/PRS.00000000000008115](https://doi.org/10.1097/PRS.00000000000008115)

Alejandro Maciel-Miranda, M.D.

Lymphatic Surgery and Breast Reconstruction Clinic
Instituto Oncológico Nacional
Guadalajara, Jalisco, México
Department of Plastic Surgery
ANKER Oncología Global
Guadalajara, Jalisco, México

Jesus Francisco Escrivá-Machado, M.D.

Clínica Dr. Escrivá
Nuevo Vallarta, Nayarit, México

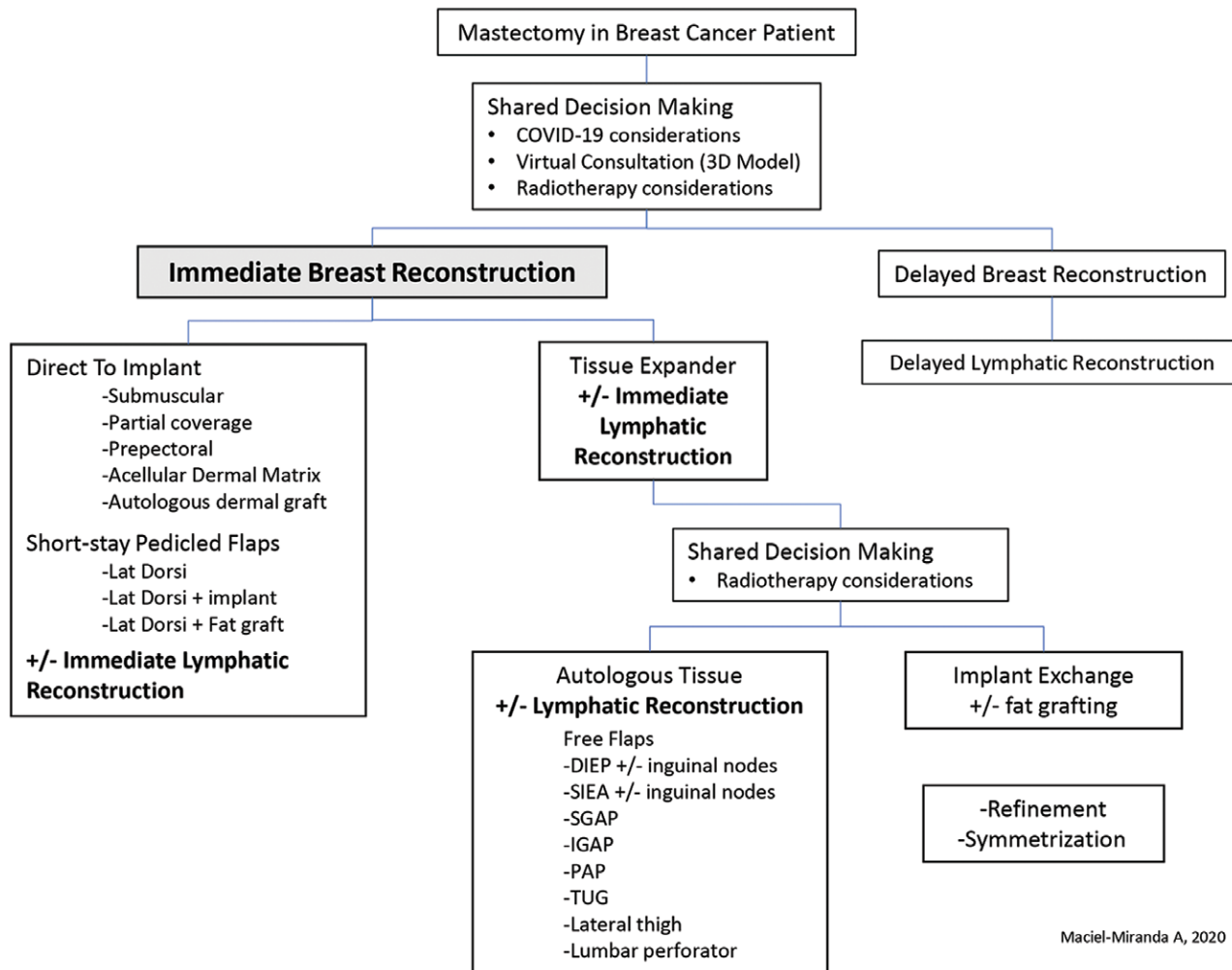
Luis Alberto García-González, M.D., M.B.A.

Department of Surgical Oncology
Instituto Oncológico Nacional
Guadalajara, Jalisco, México

Ana Olivia Cortés-Flores, M.D., M.Sc.

Department of Surgical Oncology
ANKER Oncología Global
Guadalajara, Jalisco, México

Correspondence to Dr. Maciel-Miranda
Juan Palomar y Arias 530



Maciel-Miranda A, 2020

Fig. 1. Proposed approach for breast reconstruction during the COVID-19 pandemic. *DIEP*, deep inferior epigastric perforator; *SIEA*, superficial inferior epigastric artery; *SGAP*, superior gluteal artery perforator; *IGAP*, inferior gluteal artery perforator; *PAP*, profunda artery perforator; *TUG*, transverse upper gracilis.

Monraz
Guadalajara, Jalisco 44670, Mexico
maciel.alejandro@gmail.com
Instagram: @dr.alejandromaciel
Twitter: @AlejandroMaciel

DISCLOSURE

The authors have no financial interest to declare in relation to the content of this article.

REFERENCES

1. Kutikov A, Weinberg DS, Edelman MJ, Horwitz EM, Uzzo RG, Fisher RI. A war on two fronts: Cancer care in the time of COVID-19. *Ann Intern Med.* 2020;172:756–758.
2. Kaviani A, Tabary M, Zand S, Araghi F, Nourai M. A study on breast reconstruction in a developing country: A comprehensive evaluation of the techniques and oncologic outcomes. *Ann Plast Surg.* 2020;84:512–517.
3. Offodile AC 2nd, Gu C, Boukovalas S, et al. Enhanced recovery after surgery (ERAS) pathways in breast reconstruction: Systematic review and meta-analysis of the literature. *Breast Cancer Res Treat.* 2019;173:65–77.
4. Connors JM, Levy JH. COVID-19 and its implications for thrombosis and anticoagulation. *Blood* 2020;135:2033–2040.
5. Johnson AR, Asban A, Granoff MD, et al. Is immediate lymphatic reconstruction cost-effective? *Ann Surg.* Published ahead of print December 10, 2019.