Editorial

Breast reconstruction—the true multidisciplinary approach

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Received: 15 February 2021; Accepted: 14 October 2021; Published online: 22 October 2021.
doi: 10.21037/abs-21-28
View this article at: https://dx.doi.org/10.21037/abs-21-28

Breast reconstruction has for the past decade become an integrated and inevitable part of breast cancer treatment and care. To fully integrate and incorporate the reconstructive procedure into the breast cancer treatment pathway, insight into each step of the pathway is mandatory for the wide array of specialists caring and treating breast cancer patient, as well as the increasing number of breast cancer survivors i.e., addressing the late effects and morbidity associated with breast cancer treatment.

Breast cancer treatment as well as prophylactic treatment of individuals carrying an increased risk of acquiring breast cancer is guided by recommendations of the multidisciplinary panel of specialists based on the highest standard of care as well as the highest level of scientific evidence. Recently, the European Society of Breast Cancer Specialist (EUSOMA) published a paper, describing the requirements of a specialist center, with special attention to the multidisciplinary and patient-centered pathways [diagnosis, treatment and late-effects (survivorship)] (1).

In the near future, personalized medicine will inevitably become the main stay in treating breast cancer patient by targeted and tailored imaging techniques, prophylactic therapy/surgery, pathology, oncologic surgery, reconstructive surgery, radiation therapy, chemotherapy and immunotherapy to the individual patient. Furthermore, prevention and treatment of late-effects is developing at a rapid pace (e.g., surgical treatment of lymphedema), thus creating knowledge and data for future evidence-based treatments of these entities as well. Health-care providers, whether being financed by public funds or insurance-based are already defining strict economic limitations, which requires that all health care professionals must seek to balance optimal treatment and innovation against the economic and politics whilst meeting patient-centered demands.

Immediate and delayed breast reconstruction as well as oncoplastic procedures are currently an integrated part of the breast cancer treatment. Oncoplastic surgery i.e., volume displacement and volume replacement—utilizing well-known plastic surgical techniques such as a breast reduction or a mastopexy with or without utilization of local flaps—have paved the way for an increasing number of patients undergoing breast conserving therapy and an increased survival (2,3). Breast reconstruction carried out at any timepoint during breast cancer treatment or as a prophylactic procedure has been shown to benefit the patients, physically and psychosocially as well as improving their quality of life (4-7).

Today, the breast reconstructive procedures encompass the whole reconstructive plethora, ranging from implant-based, acellular (dermal) matrix-assisted one- or two-staged procedures to the entire spectrum of autologous flaps, being perforator-based free flaps or pedicled perforator or axial flaps. Current techniques are targeted and tailored to the individual patient according to morbidity, body habitus, cancer stage and previous or future adjuvant therapies. The techniques/treatments are performed as partial or total breast reconstructions at the optimal time-point of the breast cancer pathway, Moreover, surgical procedures to prevent and treat lymphedema are gaining increased efficacy whilst the anatomical and (patho-) physiological nature of the lymphatic vasculature are

studied and revealed (8,9). The highest goal for breast and reconstructive surgeons is to optimize the reconstructive procedures, diminish and preferably eliminate donor-site morbidity and concomitantly prevent or treat late-effects. However, our obligation extends into innovative studies encompassing robot-assisted reconstructive surgery and super-microsurgery, whereby we may optimize every step of the prophylactic and treatment pathways.

Members of the multidisciplinary breast cancer teams are obliged to offer the patients the highest-level of evidence regarding imaging techniques, pathological assessment, oncologic treatment as well as treatment of late effects.

The aim of this special series in *Annals of Breast Surgery* is to provide the reader with an extensive overview over the current multidisciplinary spearheads in breast cancer treatment and breast reconstruction.

Dear reader, we hope you will enjoy reading this special series, "Breast Reconstruction-The True Multidisciplinary Approach", composed of papers written by some of the most renowned physicians, breast and plastic surgeons, oncologist, radiologist, pathologists from all over the world.

Acknowledgments

Funding: None.

Footnote

Provenance and Peer Review: This article was commissioned by the editorial office, *Annals of Breast Surgery* for the series "Breast Reconstruction—The True Multidisciplinary Approach". The article did not undergo external peer review.

Conflicts of Interest: Both authors have completed the ICMJE uniform disclosure form (available at https://abs.amegroups.com/article/view/10.21037/abs-21-28/coif). The series "Breast Reconstruction—The True Multidisciplinary Approach" was commissioned by the editorial office without any funding or sponsorship. TED served as the unpaid Guest Editor of the series. JBT served as the unpaid Guest Editor of the series and serves as an unpaid editorial board member of *Annals of Breast Surgery* from December 2019 to November 2023. The authors have no other conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work to ensure that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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doi: 10.21037/abs-21-28
Cite this article as: Damsgaard TE, Thomsen JB. Breast reconstruction—the true multidisciplinary approach. Ann Breast Surg 2023;7:1.