In 2013, ~300,000 American women were diagnosed with breast cancer and 15% of these women underwent mastectomy. 65,000 breast reconstructions (BR) were performed after mastectomy.

BR is largely divided into autologous, implant-based or a combination of the two. Autologus BR uses the patient's own tissue during BR. Implant-based BR is more common and uses tissue expander, implant and variable dermal matrices in different combinations either as a 1- or 2-stage process. BR can also be performed either immediately or delayed after mastectomy.

The rate of BR performed in the US has increased over time: by 21% from 2000 to 2012 and by 4% from 2012 to 2013.

The mean age across 28 remaining studies ranged from 41.0 years to 59.0 years. The sample size ranged from N=6 to 7,110.

The most frequently administered domains were PWB, SWB, SB, and SO. Various combinations of BR procedures were compared as 2 or 3 stages.

The decision to undergo BR postmastectomy is an important personal choice for patients. When compared to mastectomy alone, undergoing BR was associated with greater HRQOL and satisfaction, as exemplified in Table 2.

Subject A was not reported in 5 studies. Median as opposite to mean age was reported in 4 studies.

The mean age across 28 remaining studies ranged from 41.0 years to 59.0 years.

Comparisons: Approximately 1/3 of the 27 studies were single arm, 1/3 combined arms, and 1/3 comparative studies. Most common comparisons were: Mastectomy alone versus BR.*

The largest type of study was 12 months. Only 5 studies either reported effect size (ES) or provided sufficient information to calculate, as summarized in Table 2.

The decision to undergo BR is an important personal choice for patients. When compared to mastectomy alone, undergoing BR was associated with greater HRQOL and satisfaction, as exemplified in Table 2.

Our findings suggest that the BREAST-Q PROM is widely used especially in Europe and North America.

Consistent with the BREAST-Q Manual, not all domains were used in each of the 37 studies.

The use of the BREAST-Q in clinical studies was limited to single-arm or comparative studies and not in established clinical settings.

None of the 37 studies examined in the current review was a randomized, comparative and longitudinal study. Given the lasting impact of BR on patients, measuring the long-term effects of BR on HRQOL is recommended.

Continued and ongoing PROM research in BR is also recommended to further clinical decisions making around BR modalities for both patients and surgeons.

** More studies had either N=0 or N=333 than in between these two sample size categories.

** All sample sizes ranged from 18 to 2,000.

** Data from 3 studies were excluded because they did not include a comparison of autologous or implant-based BR.

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