Abstract

Breast reconstruction is aimed at restoring the normal contour and appearance of the breast. This in turn contributes to improvements in patients' feelings of sexuality, body image and overall well being. Implant-based breast reconstruction remains the most popular approach. However, challenging problems such as capsular contracture, visible rippling, implant malposition, and animation deformities may occur as a result of inadequate tissue coverage and support. Acellular Dermal Matrix (ADM) represents a possible solution by supporting the creation of an implant pocket in single-stage reconstruction or maintaining the inferolateral portion of the tissue expander pocket in two-stage reconstructions. To date, reports in the literature have failed to provide confirmation of the ability of ADMs to resist infection and tolerate radiation. Furthermore, there is an absence of objective evidence to support the enhanced aesthetic outcome associated with ADM use. The studies included in this thesis provide insight into the most effective approaches when using ADM in breast reconstruction, compare the various types of meshes used, assess their impact on complication rates, look at current trends of use among plastic surgeons, and examine cost justification based on aesthetic outcome. These are correlated to the technical, psychological and economic aspects of ADM use in post-mastectomy breast reconstruction.