Journal Article

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Title: Breast reconstruction and revision surgery for implant-associated breast deformities using porcine acellular dermal matrix: a multicenter study of 156 cases.

Abstract: Acellular dermal matrix is increasingly used as caudolateral coverage for breast implants in immediate breast reconstruction after skin-sparing mastectomy or in the correction of implant-associated breast deformities. Matrices of human, bovine, and porcine origin are available. The purpose of this retrospective multicenter study was to report experiences with porcine acellular dermal matrices, as only limited data can be found in the literature. In the hospital databases of five institutions, 127 patients were identified who underwent breast reconstructions in 156 breasts using an acellular porcine dermal matrix. Medical records were reviewed. Patients were divided into three groups: immediate expander-implant or direct to implant reconstructions (n = 98), delayed expander-implant reconstructions (n = 14), and revision surgery for implant-associated breast deformities (n = 44). With a mean follow-up of 19.6 months, total major complication rate was 7.1%: implant loss (3.2%), skin flap necrosis (2.6%), delayed skin healing (2.6%), hematoma (1.9%), seroma (1.3%), infection (0.6%), and capsular contracture (0.6%). Total minor complication rate was 22.9%, with seroma being the most frequent complication (19.2%). In the group of immediate breast reconstructions, 20.4% of the breasts had received...
radiotherapy in the past. These patients exhibited a significantly higher rate of seroma than patients without prior radiotherapy (35.0 vs. 14.9 %, p = 0.031). Complication rates using porcine acellular dermal matrix in breast reconstruction are comparable to complication rates reported in studies using human acellular dermal matrices. Thus, porcine acellular dermal matrices can safely be applied in breast reconstructive surgery.