ORAL PRESENTATION GROUP 3 – PRESENTATION 4

Postoperative Prophylactic Antibiotics Is Not Necessary in Tissue-Expander Breast Reconstruction: A Single-Institution's Change in Protocol

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Purpose: Plastic surgeons prescribe discharge antibiotics due to concern of surgical site infections (SSIs) in tissue expander-based immediate breast reconstructions (TE-IBRs). In 2016, our institution published a randomized clinical trial (RCT) which found no significant difference between short (24-hour perioperative antibiotics) versus extended (24-hour perioperative plus discharge oral antibiotics until drain removal) regimens. This prompted a shift towards the short regimen among the majority of plastic surgeons at our institution. This study evaluates complication rates between both antibiotic protocols incorporating data since the RCT.

Methods: A retrospective review of TE-IBRs from 2001 to 2017 at a single-institution was performed; cases during and up to 1-year after RCT were excluded. Demographics, comorbidities, operative details, and complications were identified. Minimum follow-up was at least one year.

Results: Four-hundred and forty-seven patients met inclusion criteria; Group I (n=287) received extended antibiotic regimen and Group II (n=160) received short antibiotic protocol. Infection (12% vs. 12%, *p=0.890*), seroma (10% vs. 6%, *p=0.068*), hematoma (2% vs. 3%, *p=0.794*), or skin necrosis (7% vs. 5%, *p=0.125*), implant loss (5% vs 2%, ***p=0.014***) and capsular contracture (3% vs. <1%, ***p=0.013***) rates between Groups I and II, respectively, were analyzed.

Conclusion: We found no difference in infection rate but statistically significant differences in implant loss and capsular contracture between the two groups. This study validates that the RCT-guided change towards short-duration antibiotics has not increased complication rates at our institution while improving outcomes. Future studies are needed in the form of a multiple-institution RCT.