

## AB026. Does post-operative morbidity affect oncological outcomes in breast cancer patients undergoing mastectomy and reconstruction?—a systematic review and meta-analysis

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**Background:** Immediate breast reconstruction (IBR) for breast cancer patients undergoing mastectomy is becoming increasingly prevalent. Unlike other malignancies, it is unclear if post-operative morbidity adversely affects long term oncological outcomes in the setting of reconstructive surgery for breast cancer. This systematic review aimed to determine if post-operative complications increases cancer recurrence in patients undergoing immediate reconstruction.

**Methods:** This study was performed according to preferred reporting items for systematic reviews and meta-analyses (PRISMA) guidelines. PubMed, Embase and the Cochrane

Library were searched systematically to identify studies comparing oncological outcomes between breast cancer patients who developed a complication after Infectious Bovine Rhinotracheitis (IBR) and those who did not.

**Results:** Four retrospective studies met the criteria for inclusion involving 980 patients. Median age at diagnosis across the studies was 48.5 (range, 21–86). Median follow up time was 63.5 months (range, 37–91 months). Rates of post-operative complications amongst the studies ranged from 21–44%. One hundred and nineteen patients (12.1%) developed a recurrence during the follow up periods. 17.6% of patients who experienced a post-op complication developed a recurrence compared to 10.2% of those without a complication. On pooling of available data, developing a complication in the post-operative period was not associated with an increased risk of recurrence (RR 1.37, 95% CI: 0.53–3.59, P=0.52). Significant heterogeneity was seen between studies.

**Conclusions:** Unlike other cancers, current evidence indicates that post-operative morbidity does not affect oncological outcomes in breast cancer patients undergoing breast reconstruction. Further larger studies are required to provide more definitive evidence to support this finding.

**Keywords:** Breast; cancer; reconstruction; complication; recurrence

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