

Axillary surgery in breast cancer clinical stage T1-T2N0M0: postoperative complications in a hospital cohort of women in Rio de Janeiro

Flávia O. Macedo, Anke Bergmann, Daniele M. Torres, Erica A. N. Fabro, Flávia O. Ferreira, Marianna B. de A. Lou, Rejane M. Costa, Ilce F. da Silva
Cancer Hospital III - National Cancer Institute

PURPOSE

To characterize the incidence of postoperative complications in women with breast cancer classification T1 and T2N0M0 diagnosed and treated at the National Cancer Institute (INCA) between 2007-2009 according to axillary surgery (sentinel lymph node biopsy –SLNB and axillary lymphadenectomy – AL).

METHODS

Observational study of a cohort of 933 women with clinical diagnosis T1-T2N0M0 treated at Cancer Hospital III of the National Cancer Institute (HC-III/INCA) in 2007-2009, and followed by a period of 60 months. Data collection was based on analysis of the Hospital Registry Cancer, the physical and/or electronic records of patients - HCIII/INCA and clinical evaluation form the Physical Therapy Service of the HC-III/INCA. Among the evaluated information included sociodemographic, clinical, lifestyle habits, implemented treatments and outcome variables. The outcome variables were those related to post-surgical complications in the affected upper limb and surgical wound. Axillary web syndrome, paresthesia and winged scapula were collected at the first visit of physical therapy that may have occurred within 3 months after surgery. Lymphedema have been considered 6 months after surgery until the end of follow-up (60 months). For axillary web syndrome, paresthesia, winged scapula, seroma and wound infection were estimated incidences and then was performed Logistic Regression analysis to calculate the odds ratio with a confidence interval of 95%. In order to verify the cumulative incidence at five years of lymphedema was performed Kaplan-Meier analysis and then estimated hazard ratio with a confidence interval of 95% using the Proportional Regression Cox.

RESULTS

The cohort was divided into 683 women undergoing SLNB, 144 to SLNB followed by AL and 106 patients received AL directly. Women undergoing SLNB estimate showed a significantly lower risk of postoperative complications when compared to women undergoing AL (axillary web syndrome: 6,0% vs 22,5%; OR: 0,37 IC95% 0,21 - 0,63; paresthesia: 45,2% vs 89,8%; OR: 0,10 IC95% 0,06 – 0,16; winged scapula: 9,1% vs 50,0%; OR: 0,12 IC95% 0,08 – 0,18; seroma: 28,5% vs 69,4%; OR: 0,32 IC95% 0,22 – 0,47; wound infection: 3,8% vs 12,9%; OR: 0,38 IC95% 0,22 – 0,70; lymphedema: 3,2% vs 56,7%; HR: 0,23 IC95% 0,11 – 0,48).

CONCLUSION

SLNB technique proved to be an independent protective factor for complications such as seroma, wound infection, axillary web syndrome, paresthesia, winged scapula and lymphedema compared to AL.

Table 1 - Incidence of postoperative complications and effects of axillary surgery in risk each complication

Complications	SLNB (%)	AL (%)	OR/HR (CI 95%)
Axillary web syndrome	6,0	22,5	0,37 (0,21 – 0,63)
Paresthesia	45,2	89,8	0,10 (0,06 -0,16)
Winged Scapula	9,1	50,0	0,12 (0,08 – 0,18)
Seroma	28,5	69,4	0,32 (0,22 – 0,47)
Wound infection	3,8	12,9	0,38 (0,22 – 0,70)
Lymphedema	3,2*	56,7*	0,23 (0,11 – 0,48)

*Cumulative Incidence at 5 years
SLNB: Sentinel Lymph Node Biopsy
AL: Axillary Lymphadenectomy
OR: Odds Ratio
HR: Hazard Ratio
CI 95%: Confidence Interval 95%