TWO DECADES OF THE AXILLARY MANAGEMENT IN BREAST CANCER

Authors: M.A. Beek et al

This study was based in The Netherlands to assess the changing management of the surgery to the axilla in breast cancer patients during the past 20 years. A large population based study was conducted including 34037 women who underwent sentinel lymph node biopsy (SLNB) without completion axillary dissection (ALND). The proportion of patients undergoing only SLNB increased from 0% in 1993 - 1994 to 69% in 2013 - 2014, and the proportion of patients undergoing ALND decreased from 88.8% to 18.7% during this period. Furthermore, in patients with 1 - 3 positive lymph nodes the proportion undergoing SLNB increased from 10.6% in 2011 to 37.6% in 2014.

The authors describe the history of axillary lymph node dissection in breast cancer patients over the decades, the rationale being for disease control, tumour staging, and to assist in strategies regarding adjuvant systemic treatment and radiation therapy. The main concern associated with ALND is the post-operative morbidity, and in particular the incidence of lymphoedema. The results of the American College of Surgeons Oncology Group Z0011 Trial published in 2011 indicated that it was questionable as to whether or not a completion ALND was necessary in patients with SLN metastases. The Trial showed that the omission of ALND did not lead to a worse overall survival or disease-free interval in patients with T1 - T2, N0 breast cancers with 1 or 2 SLN metastases shown, treated by breast conservation surgery as well as adjuvant radiation treatment. The results of the European Organization for Research and Treatment of Cancer (EORTC) Trial published in 2014 showed comparable results between completion ALND and patients undergoing axillary radiation therapy alone after a positive SLN procedure, for patients with T1 - T2 primary breast cancers and no palpable lymphadenopathy. The study clearly shows the change in the axillary surgery over a period of 2 decades, with a significantly lesser dissection performed in recent years.

SLNB was first introduced in Dutch National Breast Cancer Treatment Guidelines in 1999, and as a consequence of SLNB, the percentage of patients undergoing a primary ALND has significantly reduced. Prior to the publication of the Z0011 Trial of the American College of Surgeons, the findings of 1 or more positive SLN’s was an indication for a completion ALND. The St Gallen consensus panel recommended in 2009 that completion ALND not be performed in patients with micrometastases or isolated tumour cells in the sentinel node. The current data in this study showed that in 2013 - 2014 more than 85% of the patients with SLN micrometastases were staged by SLNB alone, and for those women with isolated tumour cells only, this figure was 100%. (i.e. full axillary dissection was not performed in these patients).
2.

The authors compare their results with those published by other centres around the world, and the trend is universal, showing the reduction in axillary surgery particularly following the outcome of the Z0011 Trial. The EORTC Amaros Trial and the International Breast Cancer Study Group Trial challenged the need for completion ALND in patients with SLN metastases. The Amaros Trial showed that axillary radiation treatment in patients with a positive SLN had excellent axillary control through the radiation alone. Present registry data has indicated that ALND is being omitted in increasing numbers of patients with 1 - 3 positive lymph nodes undergoing a mastectomy.

Dr Currer’s comment:
The guidelines described in this article are essentially followed by the Breast Section at the Sydney Adventist Hospital. The initial fear about axillary recurrent disease has been discounted, as shown in longterm studies in patients undergoing SLNB alone, even in the presence of micrometastases. In the 1970’s it was postulated that breast cancer is a systemic disease from the outset, and positive lymph nodes are best treated by systemic therapies, and this principle pertains in 2016.