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Surgery of early stage breast cancer in older women – multicenter study and review of 143 cases

Abdalla Saad Abdalla Al-Zawi[1], Beata Adamczyk[2]

[1] Basildon & Thurrock University Hospital, Nethermayne, Essex, England
[2] Wielkoploskie Centrum Onkologii, Poznań, Poland

ABSTRACT

Most of breast cancers are diagnosed in females over 50 years of age, however it is found that about 30% of the disease diagnosed with women above 70 years. Generally speaking, those patients is treated with a smaller range of treatment which usually offered to the younger group of patients. Despite the presence of many comorbidities, however the patient may still have a good physiological reserve, which make offering a radical surgery of the cancer very possible. Age should not be a determinant for quality of care in breast cancer. In this paper, we looked to 143 breast cancer patients with age >70 years had been operated. The oldest was 86. ASA assessment tool used Pre-operatively. Mastectomy done in 70% where 30% underwent Breast Conservation Surgery. Axillary surgery done in 94% of cases (52% Sentinel lymph node biopsy and 42% axillary clearance). The histology of the removed cancers showed invasive ductal carcinoma in 76% of cases, invasive lobular carcinoma in 11%, with DCIS in 06%. After surgery, every patient has been offered the individual suitable adjuvant treatment as chemotherapy, radiotherapy, Herceptin or hormonal manipulation. As those patients can stand the radical surgery and live with a good life quality after treatment, we advise to extend the screening program beyond the current recommended age. Also we recommend further research to understand more about the biology of the breast cancer in the older age group and disseminate geriatric assessment tool as Adult Co-morbidity Evaluation (ACE-27) to provide a proper evaluation of the patient status prior to final management decision.

Keywords: breast cancer, mastectomy, breast conservation surgery.

Introduction

Most of breast cancers are diagnosed in females over 50 years of age, however most of the screening programs covers the women age group between 50 to 70 years of age. In UK, any lady over 70 can self-refer for a screening mammogram [1]. Looking to breast cancer incidence, it is found that about 30% of the disease diagnosed with women above 70 years, however in general this population is dealt with less active treatment [2].

With modern medicine and improved the care level, the life span of the population is increasing. Accordingly, the number of older age group patients with cancer will considerably increase by the time, as the incidence of cancer in general is elevated 11-fold after the age of 65 years compared to adults up to 65 years [3]. Also, breast cancer in older individuals will be increasingly encountered in daily clinical practice. Management options and decisions should not be based on age alone. Physiological reserve, comorbidities, physical impairments and social factors that might impact on their diagnosed cancer care, all should considered [4]. This indicates the need for looking up and plan the future of adequate management of the cancer in the older age group. The primary treatments for early breast cancer are surgery, adjuvant radiotherapy and adjuvant systemic therapy. This paper discusses the surgical management of breast cancer in seniors.

In 1981, Herbman et al showed that older women with early stage breast cancer could tolerate radical breast and axillary and had a considerable long-term survival [5]. Many authors today asking "Should we?", we are asking "Why not?". We believe a potential curative treatment should be offered to any patient regardless age, providing that this patient is fit enough for the procedure. The cancer treatment should decrease not only the associated anxiety and unpleasantness but also the morbidity produced. Certainly any successful management will have a tremendous impact on the patient health, physical performance, psychological relief,social life as well as life expectancy. Also this will influence the life of the people surrounding the patients, this included their families as well as their carers.

Aim

To describe the age-specific surgical choice pattern in the older age group with early breast cancer breast and to elucidate the challenge of providing optimum early cancer surgical treatment for elder patients.

Material and Methods

We are presenting a series of 143 women aged 70 years and above who has been diagnosed with early breast cancer and received treatment for between 2011–2016 (**Figure 1**). The minimum age was 70 and the oldest patient was aged 89 years. The average age was 77, the median 73 and the mode 70. 100 patients had been operated at Basildon & Thurrock University Hospital – Essex England (BTUH)and other 43 at Wielkopolska Oncology Centre in Poznan Poland (WCO). The paper explored the surgical procedures has been performed in all patients, the use of pre-operative assessment tool as well as the immediate postoperative outcome. The updated medical records of all the cases has been analysed

Results

This group, had a higher proportion of mastectomy surgery (70%) than Breast Conservation Surgery BCS (30%).Mastectomy with axillary node clearance was done in 36% of cases, where mastectomy and sentinel lymph node biopsy in 32%. Only 20% of BCS cases had axillary node clearance (**Figure 2**). One postoperative mortality recorded at BTUH, it was due to a cardiac event two weeks after the surgery.

The age group specific distribution indicates that, there are 47% of the patients are below 80 and had mastectomy and only 20% of the group who are under 80 and had BCS. To attain a loco-regional disease con-

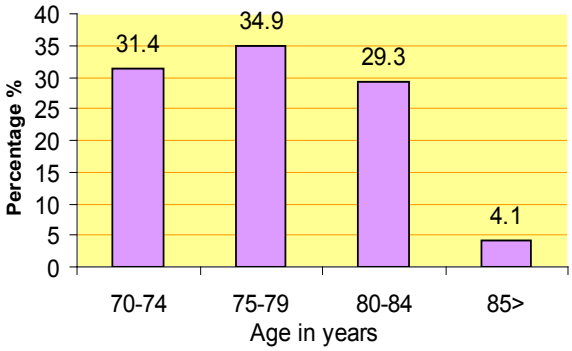

Figure 1. Age group distribution of 143 patients operated on, with breast cancer

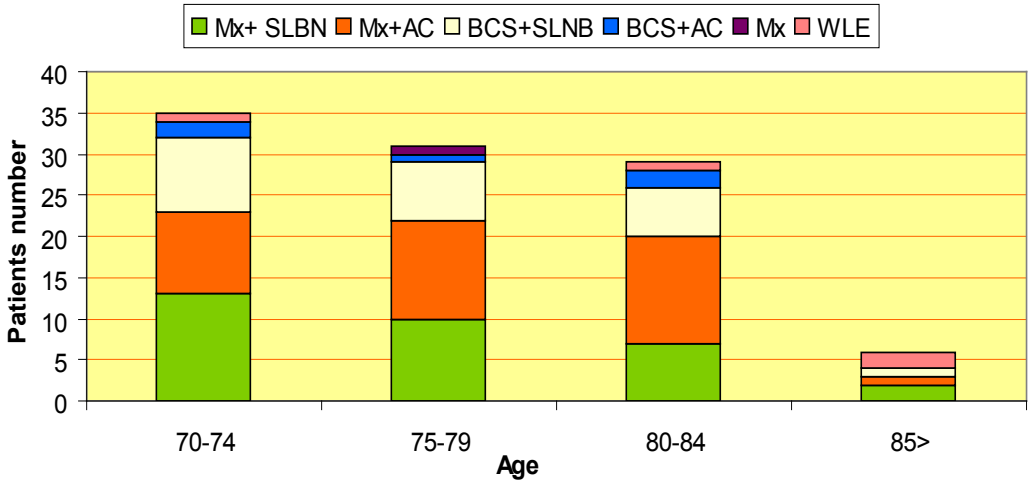

Figure 2. Surgical procedure by age @ diagnosis. Mx: mastectomy, AC: axillary clearence, BCS: breast conservative surgery, SLNB: sentinel lymph node biopsy

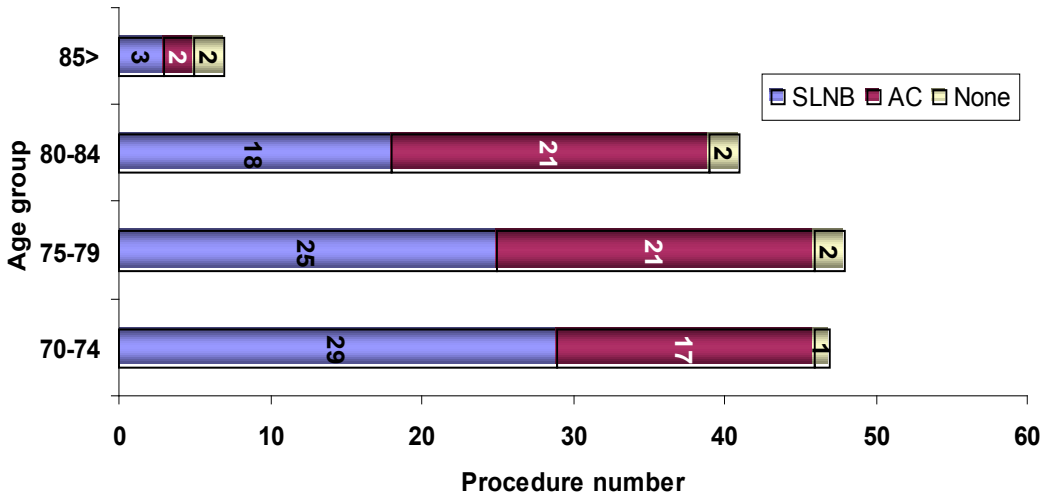

Figure 3. Axillary surgery in 143 breast cancer patients > 70

Table 1. Histology of breast cancer in 143 patients aged > 70

Histological type	Basildon % (N)	Poznan % (N)	Total % (N)
Invasive ductal carcinoma	52 (75)	23 (33)	76 (108)
Invasive lobular carcinoma	09 (13)	02 (03)	11 (16)
DCIS	03 (05)	03 (04)	06 (09)
Mixed	02 (03)	0.6 (02)	03 (05)
Others	02 (03)	0.6 (02)	03 (05)

trol, axillary node surgery also was an essential part of management. 52% of patients had sentinel lymph node biopsy only, 42% went through axillary clearance either with or without sentinel lymph node biopsy. The other 7% had no axillary surgery (**Figure 3**). The procedures used in the sentinel lymph node biopsy are blue dye as well as intra-dermal radio-colloid techniques.

The histology of the removed cancers showed invasive ductal carcinoma in 76% of cases, invasive lobular carcinoma in 11%, with DCIS in 06% (**Table 1**). The results indicate that elderly women can tolerate standard surgical procedures, go through uneventful early post operative period and survive disease-free interval for many years.

Discussion

It was presumed that elderly patients have simultaneous health problems that override the life-threatening risks associated with breast cancer. This idea in the past has often resulted in deprivation of these patients from optimum treatment of breast cancer.

Studies found that, the life expectancy of patients with breast cancers dying of other causes to be indistinguishable from that of the sex/age-matched population without breast cancer [6]. In a large study conducted in USA, it is found that women age ≥ 80 years with breast cancer receive less aggressive treatment and are more likely to die from breast cancer [7].

The published date indicates that breast cancer older age group patients do not necessarily always present with more locally advanced disease. The cancer is amenable to resection in a good number of cases. In literature it is mentioned that the older age group, presents with higher disease stages compared to younger patients. The cancer detected by clinical signs and imaging in 82% and 18%, respectively [4]. The issue of comorbidities is important in this age group. As we know, coexisting illnesses increase dramatically with age. this may include chronic obstructive airway disease, hypertension, cardiac diseases. Thrombo-embolic disease, diabetes and cerebro-vascular accidents. All these conditions independently limit their functional capacity, affects recovery, increase the risk of death and shorten life expectancy. It is not only the presence of chronic diseases can affect the treatment of a such patients, the older age group also has less use of screening mammography, lower diagnostic activity, and lower treatment activity. Careful patient assessment and selection prior to surgery is very crucial element when we think about surgery as a part of the management. In both canters we used ASA physi-

cal status classification system to assess the patients preoperatively. Some centres already using Adult Co-morbidity Evaluation (ACE-27) Tool to assess the patients [8].

Breast Conservation surgery had been introduced 35 years ago to minimise the physical and outcome of removing the whole breast. 1n 1970s, the clinical trials indicated equivalent survival when comparing mastectomy with BCS and adjuvant radiotherapy to the breast. Despite the fact that,the rate of local recurrence in the BCS and radiotherapy group were higher.The patients who developed local disease recurrence were treated by a mastectomy. Breast radiotherapy is widely accepted as gold standard treatment for patients with early breast cancer underwent BCS [9]. The performed surgical techniques in our series indicated clearly the predominance of mastectomy (70%) over BCS (30)%. This reflects many aspects as disease nature, tumour size, breast size, multi-focality or fitness for adjuvant treatment. Other factors that may affect decision are, the patient choice, as many of patients have fear of recurrence or prefer not to have radiotherapy after BCS. As we know the aims surgery to achieve good local control of both the primary tumour as well regional nodes. The axillary procedures doesn't affect the surgical time or surgery associated risk significantly, in the other hand improves the overall outcome of breast cancer management. Still we can see that the invasive ductal carcinoma is the most common malignant neoplasm of breast, consisting 75% to 80% of breast cancers [10].

Conclusions

The older age group ob breast cancer patients should have the same treatment offered to the younger counterparts. Close collaboration with geriatricians, anaesthetist, patient family and other health professionals to assess the patient status and limitations associated, all should be integral part of the decision-making process. This enables, proper management choices to be offered as well as delivery of adequate care to elderly patients with breast cancer. Establishing recommendations for management of older individuals with breast cancer is challenging, however more researches are needed to know more about the nature and behaviour of breast cancer in this group.

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Conflict of interest statement
The authors declare no conflict of interest.

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Correspondence address:
Abdalla Saad Abdalla Al-Zawi
Breast Unit, Basildon & Thurrock University Hospital
Essex, England
email: abdalasaad@gmail.com