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RESEARCH ARTICLE

CHEST WALL BREAST METASTASIC RESECTION.AN INTERESTING CASE REPORT AND REVIEW OF LITERATURE

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ABSTRACT

It is about a 52year old female diagnosed and treated for breast cancer. Presented almost two years post Ca breast treatment with a solidary chest wall mass (single metastasis post breast cancer therapy), involving the right chest wall, the right lateral part of the sternum, who finally underwent successfully mass removal, right hemi sternum excision and mess placement with a unique technique. One year and a half post procedure patient is in good health, free of disease on a regular basis follow up. It is an interesting case report specially the used operative technique.

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INTRODUCTION

Bone metastasis in breast cancer is the most common and also is considered a significant problem for clinicians. When single metastasis happens surgical treatment may improve not only survival but quality of life too.

Description of the case: It is about a 52year old female who diagnosed and treated for breast cancer. Patient underwent right breast cancer surgery segmentectomy, following by chemotherapy and radiotherapy for T1N3 Cancer low grade of the breast – no specific type. The patient presented almost two years post Ca breast treatment with a solidary mass (single metastasis post breast cancer therapy), involving the right chest wall, the right lateral part of the sternum. Patient PMH – COPD, smoker. Patient finally underwent successfully mass removal, right hemi sternum excision and mess placement with a unique technique.

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Operative technique Median sternotomy, proximal mobilization and ligation of the mammary vessels (artery and vein) with 2-0 silk and transfixion sutures prolene 2-0 incision over the tumor, mobilization and excision en block, with the 3rd, 4th, 5th rib with the right lateral body of the sternum. Following reconstruction was carried out with fixation initially of the remaining manubrium and xiphoid process with sternal wires. Prolene dual mess was placed over. Two chest drains placed in the right hemithorax. Dual mess fixation with the remaining costal bodies and intercostal muscles in one side and on the other side with the remaining side of the sternum. Redo vac was inserted over the dual mess. Typical closure end endodermic suture for the skin was performed. Patient was extubated in the operating theatre, haemodinamically stable, SatO2 99% in room air and transferred to the ward. She had a good postoperative recovery and discharge home the 4th postoperative day. One year and a half post procedure patient is in good health, free of disease on a regular basis follow up.

DISCUSSION

Bone metastasis in breast cancer is the most common and also is considered a significant problem for patients and doctors.

Image 1. Tumor involving chest wall, ribs and right part of the sternum

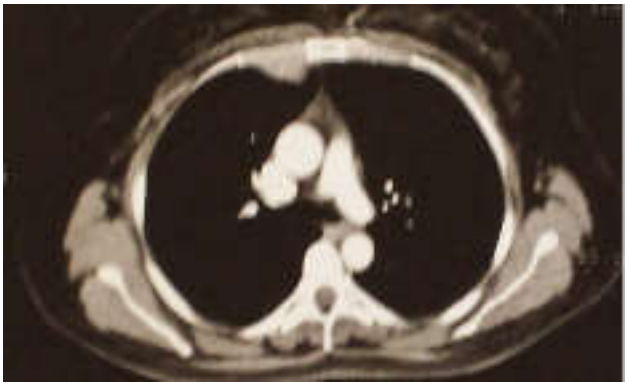

Image 2. Tumor before procedure and mass placement

Image 3. Post procedure and mass placement

This means incurable disease and is associated with pain, pathological fractures, spinal cord compression and hypercalcaemia (Bob, 2014; Wong, 2011). Bone-targeted agents bisphosphonates and the receptor activator of nuclear factor kappa-B ligand (RANK-L) antibody, denosumab are nowa routine part of the treatment of breast cancer bone metastases to reduce symptomatology and improve quality of life[2]. In early breast cancer, bisphosphonates may have an antitumor effect and prevent both bone and non-bone metastases, but oral bisphosphonates is not completely clear that can prevent bone metastases in advanced breast cancer without skeletal involvement (Hans Roland Dürr, 2002).

Image 3. During the procedure post sternal wires and chest drains placement

Image 4. Post mass placement

Image 5. Patient before discharging home

Also, RANK ligand antibody, denosumab, has been shown to reduce skeletal-related events more than the bisphosphonate, zoledronic acid (Hans Roland Dürr, 2002). Hans Roland Dürr et al at the article Surgical Treatment of Bone Metastases in Patients with Breast Cancer reported, the effect of surgical therapy on 70 patients with breast cancer who were surgically treated for metastasis of the bone was evaluated.[3] Was found 19 patients had one osseous lesion, 19 patients had multiple bone lesions, and 32 patients had additional visceral involvement. Five patients were free of tumor from these 19 with solidary bone lesions (Hans Roland Dürr, 2002). Of the 19 patients with multiple bone lesions and initially no visceral tumor spread, only two reported alive. Of the 32 patients with additional visceral metastases at surgery, four patients reported alive with the disease. The survival rate was 59% after 1 year, 36% after 2 years, 13% after 5 years, and 7% after 10 years. Patients with solitary bone lesions have a 39% chance of living 5 years Manabu Hoshi et al at the article, Prognostic factors for patients with Solitary bone metastasis they analyzed data from 42 patients (Manabu Hoshi, 2013). They reported that the 1-year survival rate was 76.5%, and the median survival period was 30.0 months (Manabu Hoshi, 2013). Also they supported that the prognosis for patients with solitary bone metastasis depended on the presence of primary cancer and on poor performance status (Manabu Hoshi, 2013).

Conclusion

Regular follow up and on time surgical treatment of chest wall breast single metastasis can improve health and quality of life.

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