

## Survival in initially metastatic breast carcinoma

- Case report -

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**Introduction:** Approximately 5%-10% of patients with breast cancer have distant metastases at first presentation. Chemotherapy or hormone therapy is often the main treatment in these patients without loco-regional treatment (surgery or radiotherapy) except in cases of fungation forms and bleeding. There are studies that have shown that removal of primary tumor at times leads to complete disappearance of metastases and improvement in survival in renal cell carcinoma patients. However, such studies have never been performed in other solid tumors. On the other hand, there is a strong body of evidence in experimental settings showing that removal of primary tumor allows growth of metastasis. There is lack of similar data in humans in clinical settings. Breast cancer as a biological and genetically heterogeneous tumor often metastasizes to the bone so patients with bone metastases form the largest group of patients with metastatic disease. The incidence is significantly high in steroid receptor positive tumors and well-differentiated lesions. Approximately 50% of patients with metastatic bone disease have clinical symptoms, and in 4% -7% develop pathological fractures of the long bones. Patients with bone metastases from breast cancer are with better survival than from other tumors. Recent data suggest that survival may be improved if disease is controlled by offering loco-regional treatment of the primary tumor in metastatic breast cancer. This a case report about 44 years old femail patient with breast cancer with diffuse bone metastases at first presentation.

**Diagnostic considerations:** The patient came to the Clinic of oncology and radiotherapy in March 2005 for further treatment with the diagnosis: Carcinoma metastaticum vertebrae lumbosacralis proven by CT stereotactic biopsy of L5. The patient has done the following tests: 1. scan of skeleton: metastatic deposits in spine, rib 7 and 10, manubrium sterni and sacrum; 2. mammography findings were with the presence of malignancy ( 20,5x13 mm) in left breast with package lymph nodes in the left aksila; 3. FNAB of the breast: was without the presence of malignant cells but from the lymph node of aksila: deposit of breast cancer. In the context of this patient's clinical stage was: T2N1M1 Gx (Stg. IV). Immunohistochemical findings of metastasis in the vertebra was: HER: -; ER: 2+/3+ ; PGR: unconclusive. CEA=9,71 ng/ml; CA15-3: 22,2U/ml.

**Treatment: Initial treatment 2005.:** 6 cycles of chemotherapy ( AC protocol - Doxorubicin 60mg/m<sup>2</sup> + Cyclophosphamid 600mg/m<sup>2</sup> i.v at 21 days ) + bisphosphonate therapy (amp.Pamidronic acid a 90mg, iv , at 28 days) + realised radiotherapy on L5, TTD = 30Gy, 10fr/3Gy, TCT. Tumor markers at the end of treatment: CEA: 2,38; CA15-3: 19.6. After that a radical mastectomy of the left breast with dissection of left aksila was conducted and an immunohistochemistry from the breast was: HER: "-", ER: "-", PGR: "-". The patient was set on hormone

therapy : Tabl.Tamoxifen a 10 mg 2x1. In June 2007 patient is started with second-line hormone therapy because for the growth of tumor marker (CEA = 17,7), progress of metastatic disease and menopause (Aromatase inhibitor - Tabl.Letrozol 1x1). November 2010 due to the progress of bony metastases of the thoracic spine and inability for radyotherapy due to cumulative toxicity of spinal cords from previous radiotherapy to the thoracic spine , bisphosphonate therapy was changed. ( amp.Zolendronic acid a 4mg i.v ).

**Results /Follow-up: 2006-2010:** The patient was in good general condition. Continues with intravenous bisphosphonate therapy for 28 days and hormone therapy. Ultrasonography of the breast every 6 months: normal findings. Mammography annually: normal finding. Abdominal echo every 6 months: normal findings. X-rays of the lungs annually: normal findings. Tumor markers every 6 months: in reference. Sken of the skeleton once a year: the appearance of metastases on both shoulders and right art. sacro-iliaca, whole thoracic and lumbar spine (2007), left clavicle (2008), the progress of the thoracic spine(2010).

**2011-2013:** Good general condition. Stable metastatic disease. The patient is still on bisphosphonates and hormone therapy. Scan skeleton: Regression of bone metastases. Eight-year survival.

**Conclusion:** Some of the patients who present with breast cancer already have distant metastatic disease. According to recent literature, these patients may benefit from resection of the breast tumour. One explanation for the effect of this resection is that reducing the tumour load influences metastatic growth. When metastasectomy is not possible, minimally invasive techniques can be used in selected patients for the treatment of breast cancer liver metastases, radiofrequency ablation (RFA) being discussed most in the literature. Results of future randomised controlled trials should indicate whether surgery of the breast tumour truly improves survival and is there any differences between initially bone and parenchymal metastases.

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