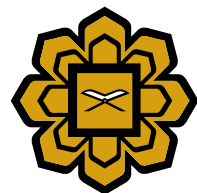


Emergency Transarterial Chemoembolization (TACE) in Breast Cancer; A Critical Intervention for Life-threatening Bleeding Tumours

Authors: Zainudin SP^{1,2}, Liew SL¹, Shahidah CA¹, Noor Ezmas M¹, Aidi Aswadi HL³



Institution: 1 Department of Surgery, Kulliyah of Medicine, International Islamic University Malaysia
2 Department of Surgery, Faculty of Medicine and Health Sciences, Universiti Malaysia Sabah
3 Department of Radiology, Kulliyah of Medicine, International Islamic University Malaysia

INTRODUCTION

Treatment of acute bleeding in breast cancer includes compressive dressing, the use of topical or intravascular haemostatic agents, and radiotherapy. TACE is a minimally invasive procedure in which a chemotherapy drug is delivered directly into the tumour via feeding arteries, followed by the injection of an embolic agent. We report a case of a bleeding tumour managed with TACE where imminent transfer to a radiotherapy centre was not feasible.

CASE REPORT

A 56-year-old female presented to our centre with Stage IV left breast cancer. It had gradually grown over the past 10 years and was complicated by ulceration and bleeding. The fungating lesion measured 15 cm x 20 cm, with numerous subcutaneous nodules involving the contralateral breast and matted axillary lymphadenopathy. Biopsy confirmed invasive breast carcinoma with hormone receptor-positive and HER2-negative status. CT staging showed chest wall extension, bone, and liver metastasis. She refused systemic chemotherapy and was started on Letrozole. She had several hospital admissions due to tumoral bleeding, unfortunately, she developed haemorrhagic shock with an Hb of 4.6 g/dl. The interventional radiology team performed emergency TACE.

The left subclavian artery were accessed via right common femoral artery.

Angio-runs showed tumoral blush in the branches of the left internal mammary, lateral thoracic and thoracodorsal arteries.

Chemosaturation was performed using a cocktail of Fluorouracil (5FU), Mitomycin and Doxorubicin followed by gelfoam embolization as a temporary agent while waiting for funding for HepaSphere™. The bleeding was successfully arrested, and tumour necrosis was observed in the following days.

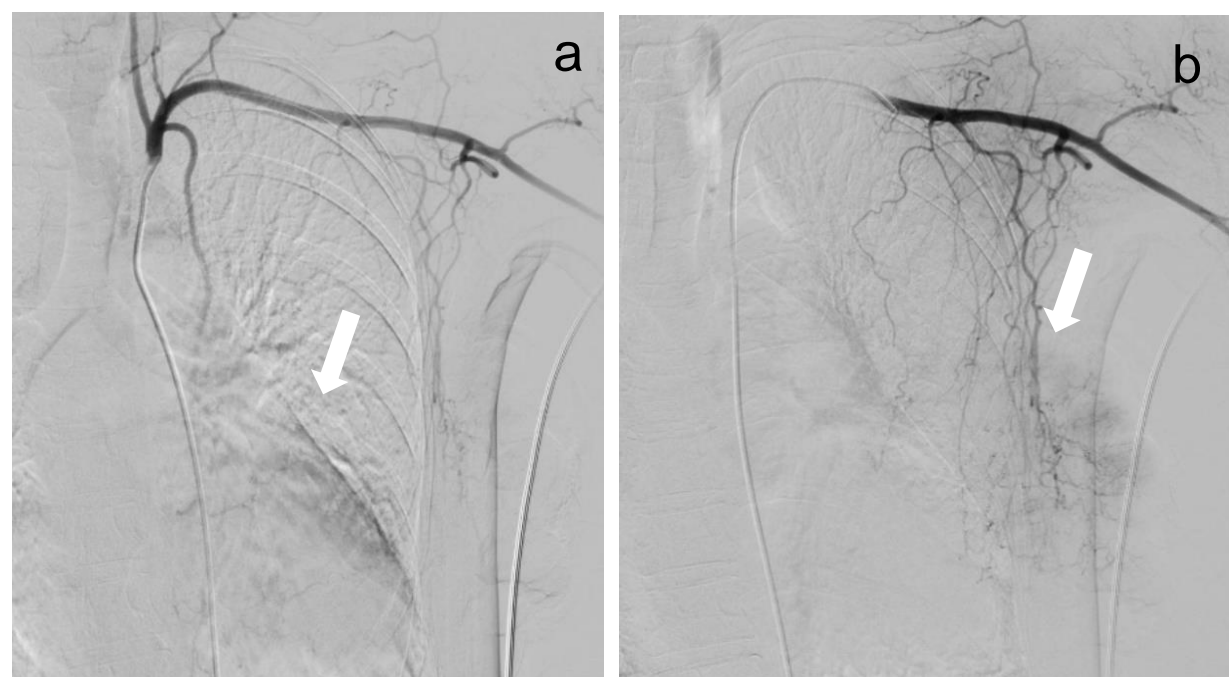


Figure 1: Angiogram showing tumoral blush at internal mammary artery (a) and lateral thoracic and thoracodorsal artery (b) (white arrow)

She developed a rare complication of spinal cord infarction post-procedure and was treated conservatively. There was no rebleeding after her discharge and throughout the following three months before her demise.



Figure 2: Comparison of tumour appearance prior to procedure, on D1, and D3 post-procedure.

DISCUSSION

Transarterial embolization of bleeding breast tumours have been described as early as 1978 [1]. Chemoembolisation is an emerging technique to treat ulcerative and haemorrhagic breast cancers and is currently being considered as a neoadjuvant treatment for locally advanced breast tumours with success [2]. It can be a life-saving measure with significant improvement in ulcer management and overall quality of life.

1.Harrington, D.P.; Barth, K.H.; Baker, R.R.; Truax, B.T.; Abeloff, M.D.; White, R.I., Jr. Therapeutic embolization for hemorrhage from locally recurrent cancer of the breast. *Radiology* 1978, 129, 307-310

2.Zhang, J., Zhang, J., Niu, X. et al. Discussing the safety and effectiveness of transcatheter arterial embolization combined with intravenous chemotherapy in treating locally advanced breast cancer. *Sci Rep* 14, 6003 (2024).