

## BREAST TUMOUR PRESENTING AS RECURRENT DEEP VEIN THROMBOSIS

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Deep vein thrombosis development during the course of treatment of breast carcinoma has been well described, but carcinoma breast presenting with DVT for the first time is highly unusual.

We present the case of a 45 year old women with recurrent deep vein thrombosis of left lower limb. During the second episode she was found to have infiltrating ductal carcinoma of the right breast with axillary lymph node metastasis. To our knowledge there have been only one literature report of breast carcinoma in which the sole presenting symptom complex was venous thrombosis

**Key words:** Breast carcinoma, Deep vein thrombosis

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### INTRODUCTION

The association between cancer and venous thromboembolism is well known. Occasionally, the thromboembolic event occurs before the diagnosis of cancer, and it has been suggested that deep venous thrombosis (DVT) may be a predictor of the subsequent diagnosis of cancer. Although deep vein thrombosis development during the course of treatment of breast carcinoma has been well described, breast tumour presenting with DVT for the first time is unusual (1). To the best of our knowledge there have been only one literature report of breast carcinoma in which the sole presenting symptom complex was due to venous thrombosis.

### CASE

A 45 year old female was admitted with history of sudden onset painful swelling of the left lower limb of 5 days duration. There was no history suggestive of similar swelling in the past. No history of fever, anorexia, weight loss, or any suggestion of cardiovascular, respiratory or connective tissue disorders. There was no recent pelvic or orthopedic surgery, no recent long journey, and no history of trauma. On examination her vitals were stable. There was swelling of left lower limb extending up to the thigh with calf tenderness

on palpation and Homan's sign was positive. Her cardiovascular, respiratory and per abdominal examination were within normal limits and there was no lymphadenopathy. A provisional diagnosis of deep vein thrombosis of left lower limb was established. An urgent Doppler USG revealed left femoro popliteal vein thrombosis and D-dimer test was positive. Subsequent investigations showed Hemoglobin- 9.5 g/dl, total count 12500/cmm, Differential neutrophils 55%, eosinophils 2%, lymphocytes 43%, and ESR 60mm at one hour. Peripheral smear was normal. Serum electrolytes and LFT were normal. CRP, RA factor, VDRL, anti phospholipid antibody profile and ANA were negative. Her serum homocystiene levels were normal and primary thrombophilia work up including protein C, protien S were normal.

Chest X ray and USG abdomen were normal except for a 2.6\*2.8 cm fibroid in the anterior uterine wall. Patient was started on anticoagulation with warfarin. On day 2 of anticoagulation she developed per vaginal bleeding. Anti coagulation was temporarily with held. Bleeding was controlled following treatment with medroxy progesterone and anticoagulation was restarted with INR adjusted to 2.5 With treatment patient

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improved symptomatically. Pain and swelling came down significantly and she was discharged on oral anticoagulants with INR adjusted to 2.5. Six months later the patient again presented with recurrence of swelling of left lower limb associated with pain. A repeat compression USG revealed left femoro popliteal DVT and repeat INR was 2. This second episode of DVT on anticoagulation prompted a search for other predisposing factors. A detailed examination revealed a hard, nontender, right axillary lymph node of 2\*2 cm size and a breast lump on the same side of 4\*4 cm size, hard, mobile, with no fixation to skin or underlying structures. The patient had denied any lump in the breast during the initial visit. Histopathological examination of the breast mass revealed infiltrating ductal adenocarcinoma with axillary lymph node metastasis. Patient subsequently underwent surgery for breast mass and her anticoagulation was continued with INR adjusted to 3. Six months post surgery, anticoagulation was stopped and she was kept on follow up for subsequent development of DVT. When last seen she was doing well with no recurrence of DVT and was off anticoagulant.

## DISCUSSION

The association between cancer and thrombosis is well established. Autopsy studies and retrospective reviews suggest that cancers of the pancreas, lung, and stomach, and adenocarcinomas of unknown primary source are most strongly associated with thrombosis. Little association has been found for few types when adjusted for their prevalence in general population—namely, cancer of the breast, urinary bladder, rectum, and malignant melanoma (2).

Cancer diagnosed at the same time or after an episode of venous thromboembolism is associated with an advanced stage of cancer and a poorer prognosis. This is true particularly in case of carcinomas of pancreas, liver, and brain, where early detection does not translate into improved prognosis and survival. But in certain other cancers such as breast carcinoma, early detection and subsequent treatment does make a significant difference in patient survival.

Our patient initially presented with isolated DVT of left lower limb, which was labeled as idiopathic after extensive work up for procoagulant states. It was only during the second episode that a breast malignancy was discovered. The fact that primary

thrombophilia states were ruled out and that anticoagulation could be discontinued once the breast carcinoma was removed with no recurrence of DVT favours our argument that the DVT in this case was due to the underlying malignancy. Retrospectively we feel that a more thorough clinical examination including a mammogram during the first visit would have resulted in an early discovery of breast cancer with significantly less morbidity to the patient. This case is a strong support for the fact that acute VTE can be the first manifestation of an occult malignancy, and patients presenting with idiopathic VTE are more likely to have underlying cancer than those in whom a secondary cause of thrombosis is apparent (3).

Treatment of VTE in patients with malignancy is also problematic. Long-term anticoagulation using vitamin K antagonists is associated with high rates of recurrent VTE and bleeding in patients with cancer (4). Our patient had both these complications. Low molecular weight heparin appears to be superior to vitamin K antagonists in this special subset of patients and may be considered the treatment of choice. Another emerging concept is the antineoplastic effect of heparins and other antithrombotic agents and their potential to retard tumor progression and improve survival (3). Studies are underway in this regard and initial results appear to be promising.

In conclusion, deep vein thrombosis may be one of the atypical presentations of breast carcinoma and the possibility of breast carcinoma should always be considered in cases of unexplained deep vein thrombosis in females.

## REFERENCE

1. Sørensen HT, Mellekjær L, Steffensen FH, Jørgen H. Olsen, Nielsen LG. The risk of a diagnosis of cancer after a primary deep venous thrombosis or pulmonary embolism, *N Engl J Med* 1998;338:1169-73
2. Agnes Y.Y. Lee, Mark N. Levine, Venous Thromboembolism and Cancer: Risks and Outcomes. *Circulation* 2003; 107:I-17
3. Schulman S, Lindmarker P. Incidence of Cancer after Prophylaxis with Warfarin against Recurrent Venous Thromboembolism, *N Engl J Med* 2000; 342:1953-58
4. Pfeiffer RB 3rd, Barber WH. Inflammatory breast cancer presenting with acute central venous thrombosis: a case report. *Am Surg* 2002;68(6):579-81