

Arm swelling 30 years after breast cancer operation diagnosed as venous thoracic outlet syndrome

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Introduction

Thoracic outlet syndrome (TOS) is a well-described disorder caused by thoracic outlet compression of the brachial plexus and/or the subclavian vessels. Neurogenic thoracic outlet syndrome is the most common manifestation, presenting with pain, numbness, tingling, weakness, and vasomotor changes of the upper extremity. Vascular complications of thoracic outlet syndrome are uncommon and include thromboembolic phenomena and swelling. After the breast cancer operation, patients with ipsilateral arm swelling visit the outpatient department of rehabilitation medicine suspecting lymphedema. Here we report a case of unilateral arm swelling after ipsilateral breast cancer operation, which was diagnosed as venous thoracic outlet syndrome.

CASE REPORT

The patient was a 64-year-old woman who had a breast cancer operation as right modified radical mastectomy 30 years ago. Swelling in her right arm started in February 2018. She visited local hospital and has taken a medication, but it was ineffective. Her symptom sustained and she took chest computed tomography (CT) in local hospital and visited the outpatient department of rehabilitation medicine on June 2018. On physical examination, her right upper arm, forearm and hand were swollen as a whole, but the strength of the right upper limb was normal. And although there is no inconvenience in everyday life, she had dyspnea on exertion which was developed 30 years ago. On chest CT, atelectasis in the right upper lobe and right diaphragm elevation were found. In addition, calcified ribs and subpleural reticular opacities, which are probably caused by radiation, were found. The patient was referred to department of thoracic surgery to rule out diaphragm eventration and thoracic outlet syndrome. On upper extremity vein CT, focal right subclavian vein stenosis was suspected at right costoclavicular junction level. And diffuse swelling was found throughout the right arm. The patient was diagnosed as venous TOS and recommended venogram for more accurate diagnosis and surgery. Because the patient wanted to receive conservative treatment, further evaluation was deferred.

Conclusion

We report a patient presenting unilateral arm swelling 30 years after ipsilateral breast cancer operation, which was diagnosed as venous thoracic outlet syndrome. Up to 40% of the women treated for breast cancer had lymphedema, and it is easy to diagnose such patient's arm swelling as lymphedema. But in this patient, venous TOS was diagnosed. If

there are any atypical findings, physicians treating breast cancer patients should suspect TOS, and further evaluation is warranted.

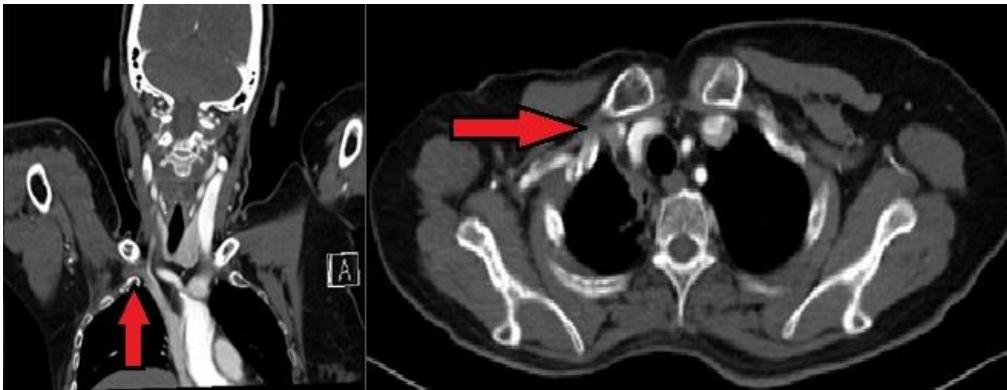


Fig. 1. Computed tomography showed focal right subclavian vein stenosis at costoclavicular junction.

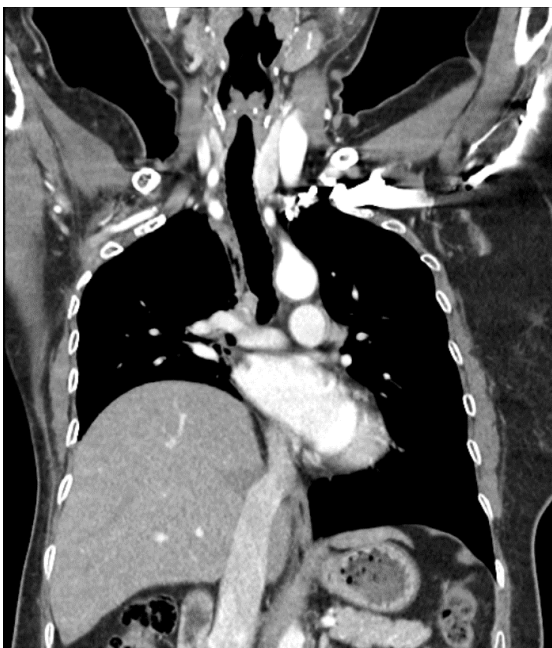


Fig. 2. Computed tomography showed right diaphragm elevation.