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## INTRODUCTION

Breast cancer is the most prevalent malignancy in the world and in Asian women the prevalence is increasing<sup>1</sup>. The incidence of having toxic multinodular goiter in breast cancer patients is even rarer and it is thought that autoimmune thyroid disease has increased risk of developing breast malignancy<sup>2</sup>.

## CASE REPORT

We herein report a 65-year-old lady who was referred to us from a private center for 1 year history of right breast mass. On further history, she has symptoms of hyperthyroidism with no obvious neck swelling or obstructive symptoms. A contrast enhanced computer tomography (CECT) of thorax, abdomen and pelvis revealed a right breast tumor suspicious of malignancy as well as diffusely enlarged thyroid gland suggestive of multinodular goiter. No other metastases seen. Fine needle biopsy of the breast lesion confirms the diagnosis of malignancy. Her thyroid function test, however, shows a dysregulation of thyroid hormone (TSH <0.0005, T4: 85) that needed control with medications. A multi-discipline team discussion and approach was done as part of her pre-operative care. She then undergone neo-adjuvant chemotherapy and then Right Mastectomy and Axillary Clearance and Total Thyroidectomy with nerve monitoring with cardiothoracic surgeon backup. Post-operatively she was well and discharged home days later and currently is clinically euthyroid. Full histopathological examination shows triple negative invasive breast carcinoma with clear margins and benign nodular hyperplasia of the thyroid nodules.



Figure 1: Preoperative portrait of the patient. Note the dilated vein suggestive of Superior Vena Cava Obstruction

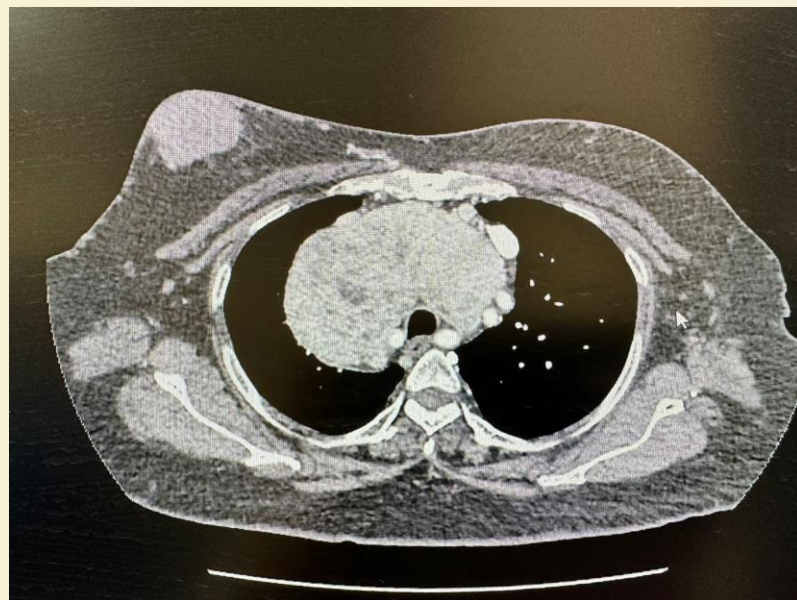


Figure 2: Coronal cut of the Contrast Enhanced Computer Tomography (CECT) Neck and Thorax. Note the right breast lesion.

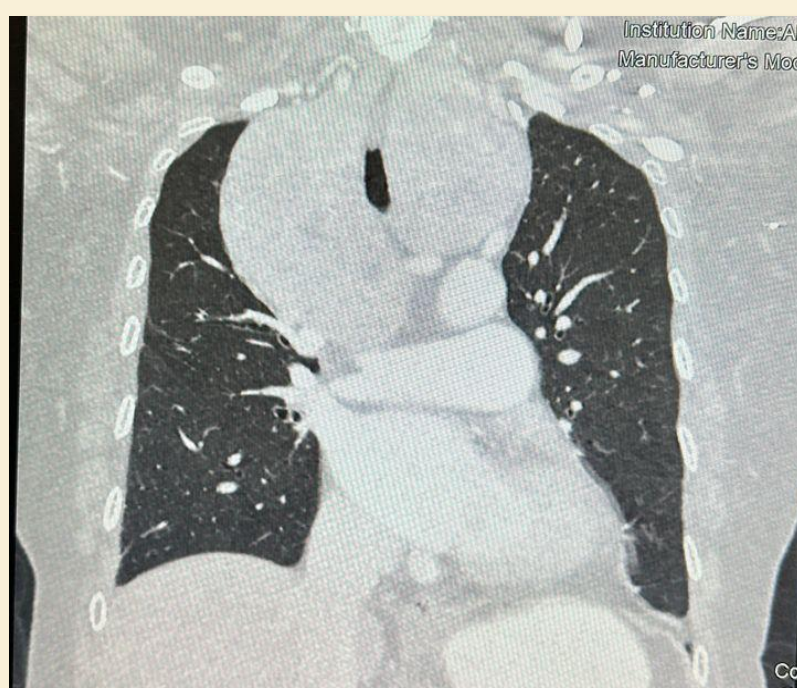


Figure 3: Axial cut of the Contrast Enhanced Computer Tomography (CECT) Neck and Thorax

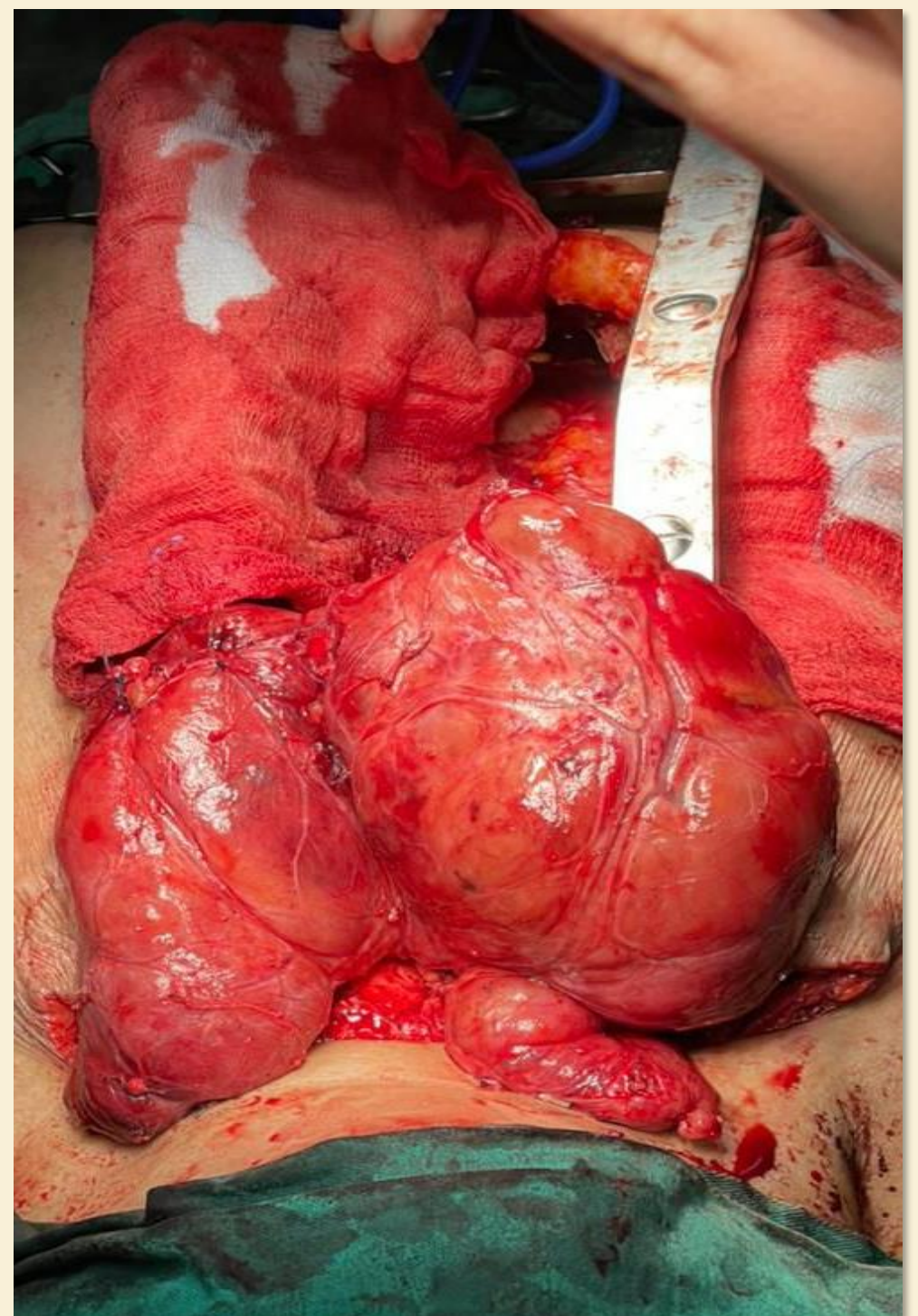


Figure 4: Pre-excised thyroid gland in situ. Note the extension into the thoracic cavity

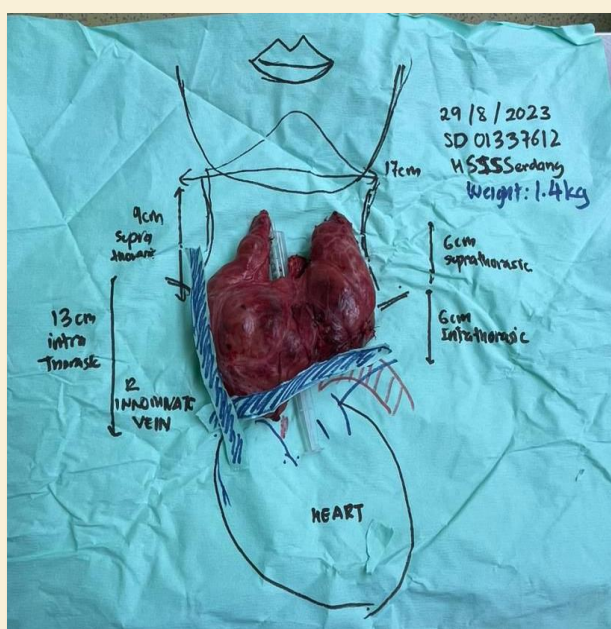


Figure 5: Sketch of the thyroid gland in relation to other organs

## DISCUSSION AND CONCLUSION

This case report highlights the pre-operative and postoperative challenges that the patient faces such as possible thyroid storm and risk of cardiothoracic injury due to the substernal goiter.

## REFERENCE

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