

# A Rare Cause of Postpartum Rapidly Enlarging Goiter

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## Introduction

Diffuse sclerosing variant of papillary thyroid carcinoma (DSV-PTC) is an uncommon variant of PTC. The prevalence of DSV-PTC varies from 0.7–6.6% of all papillary thyroid carcinomas. This subtype was first described in 1985 by Vickery et al., and is characterized histologically by diffuse involvement of one or both thyroid lobes with dense sclerosis, patchy to dense lymphocytic infiltrates, abundant psammoma bodies and extensive squamous metaplasia. Compared with classic PTC, DSV-PTC has unique clinical features, including a higher prevalence of underlying Hashimoto's thyroiditis, higher female to male ratio and younger age. Ultrasonographic (US) findings of DSV-PTC are also distinctive. The characteristic US features of DSV-PTC are diffuse enlargement of the thyroid gland with heterogeneous hypoechogenicity, diffuse scattered microcalcifications with or without a mass (a 'snowstorm' appearance) and the presence of extensive cervical lymph node metastasis. Echographically it looks similar to Hashimoto thyroiditis and sometimes could be easily overlooked. The most common initial manifestations were neck swelling (85 %) and general fatigue (10 %).

## Case

A 20 years old woman admitted to our polyclinic with dispnea, dysphagia and throat swelling. She gave a birth 2 months ago and her complaints started one month after the birth. She had a firm, grade III non-tender goiter. Thyroid stimulating hormone, thyroxine, triiodothyronine, thyroglobin antibody and antithyroid peroxidase antibody were; 6 uIU/mL (0.27-4.2), 0.8 ng/dL (0.9-1.7), 3 pg/mL (1.8-4.6), >4000 IU/mL, 13.7 IU/mL (0-34) respectively. Levothyroxin therapy was started. Diffuse enlargement of the thyroid gland (thyroid volume:76 cm<sup>3</sup>) with heterogeneous hypoechogenicity, diffuse scattered microcalcifications and bilateral extensive cervical lymph node metastases were detected on cervical ultrasonography (Figure 1, Figure 2). Thyroid fine needle aspiration biopsy (FNAB) was performed on the calcified areas of the bilateral thyroid lobes and cervical lymph nodes. FNAB was compatible with suspicious for malignancy according to the Bethesda System. Bilateral cervical lymphadenopathy, and chronic thyroiditis on ultrasonography caused suspicion for thyroid lymphoma. So trucut thyroid biopsy was done and immunohistochemical studies was performed and lymphoma diagnosis was excluded. Patient underwent bilateral total thyroidectomy, bilateral and santral neck dissection. DSV-PTC was diagnosed on histopathology.

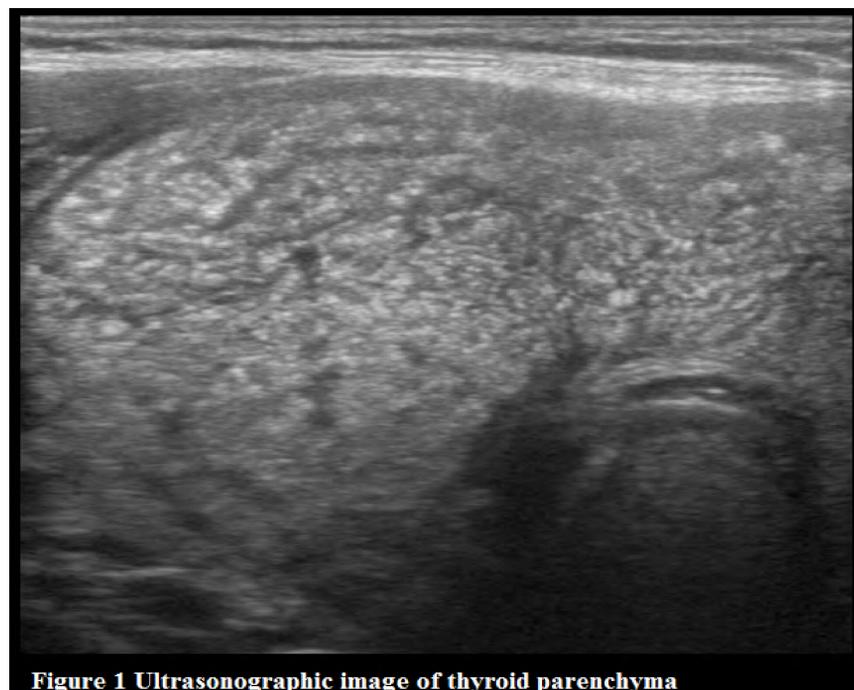


Figure 1 Ultrasonographic image of thyroid parenchyma

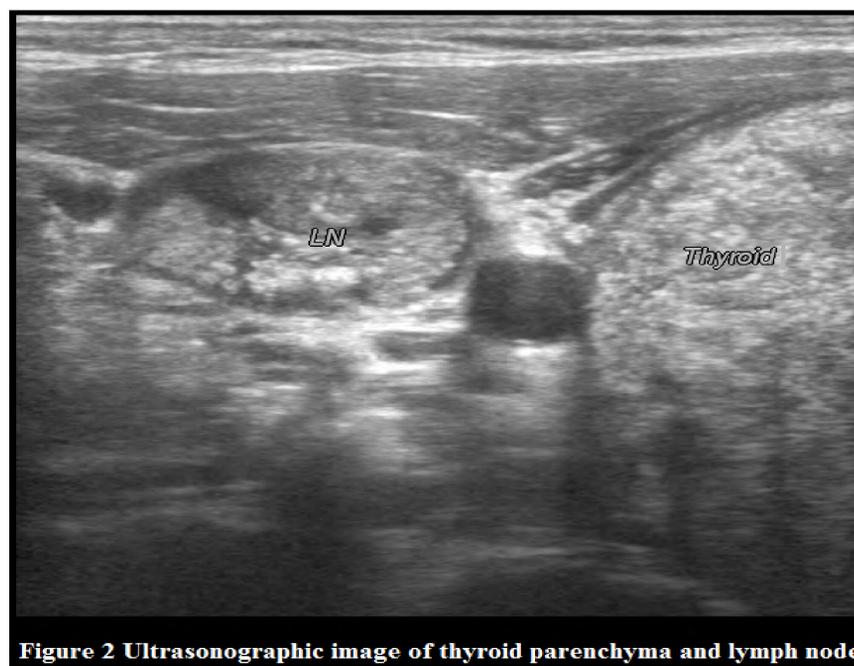


Figure 2 Ultrasonographic image of thyroid parenchyma and lymph node

## Conclusion

Iodine deficiency related goiter on postpartum period is frequently encountered in our country. On ultrasonography, DSV-PTC looks similar to Hashimoto thyroiditis. Fast and diffusely enlarging goiter of young women and diffuse microcalcifications on ultrasonography, must remind malign causes of goiter. These patients also need cervical ultrasonography instead of lone thyroid ultrasonography because of tendency to lymph nodes metastasis.