Diffuse Lipomatosis of Thyroid Gland

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A 64-yr-old man with chronic renal failure and psoriasis presented with enlargement of thyroid gland and dyspnea.

Thyroid function was within normal limits, and no antithyroid antibodies were detected. Nonsteroid therapy was done. Ultrasonography detected diffuse goiter with heterogeneous echogenicity. Scintigraphy revealed enlargement of thyroid, with irregularly reduced uptake, without cold nodules.

Computed tomography, performed to evaluate tracheal diameters, showed a goiter, slightly compressing the airway. Thyroid had a negative density, in the range of fat tissue (Fig. 1). Computed tomography also detected mediastinal lipomatosis, clearly separated from thyroid.

Fine-needle thyroid cytology showed abundant fat cells between normal follicles, without any sign of hyperplasia, malignancy, or amyloid deposition.

Diffuse thyroid lipomatosis is a rare entity, initially reported by Dhayagude in 1942 (1). A few cases have been reported in the literature (2–4).

It is characterized by diffuse proliferation of adipose tissue in the gland, sometimes associated with amyloid deposition. This condition has been explained in different ways; the prevailing hypothesis suggests that fat remains included in the gland during the embryogenesis (2).

Adenolipoma and other intrathyroid fat-containing masses were easily excluded, because these rare entities appear as focal nodules, well circumscribed, within an otherwise normal gland.

A benign, symmetrical lipomatosis of the upper trunk, neck, and head, known as Launois-Bensaude syndrome, should spare the thyroid gland (5).

In conclusion, this is an example of idiopathic diffuse lipomatosis of thyroid gland.

Because the natural history of this rare condition is unknown, further follow-up is warranted.

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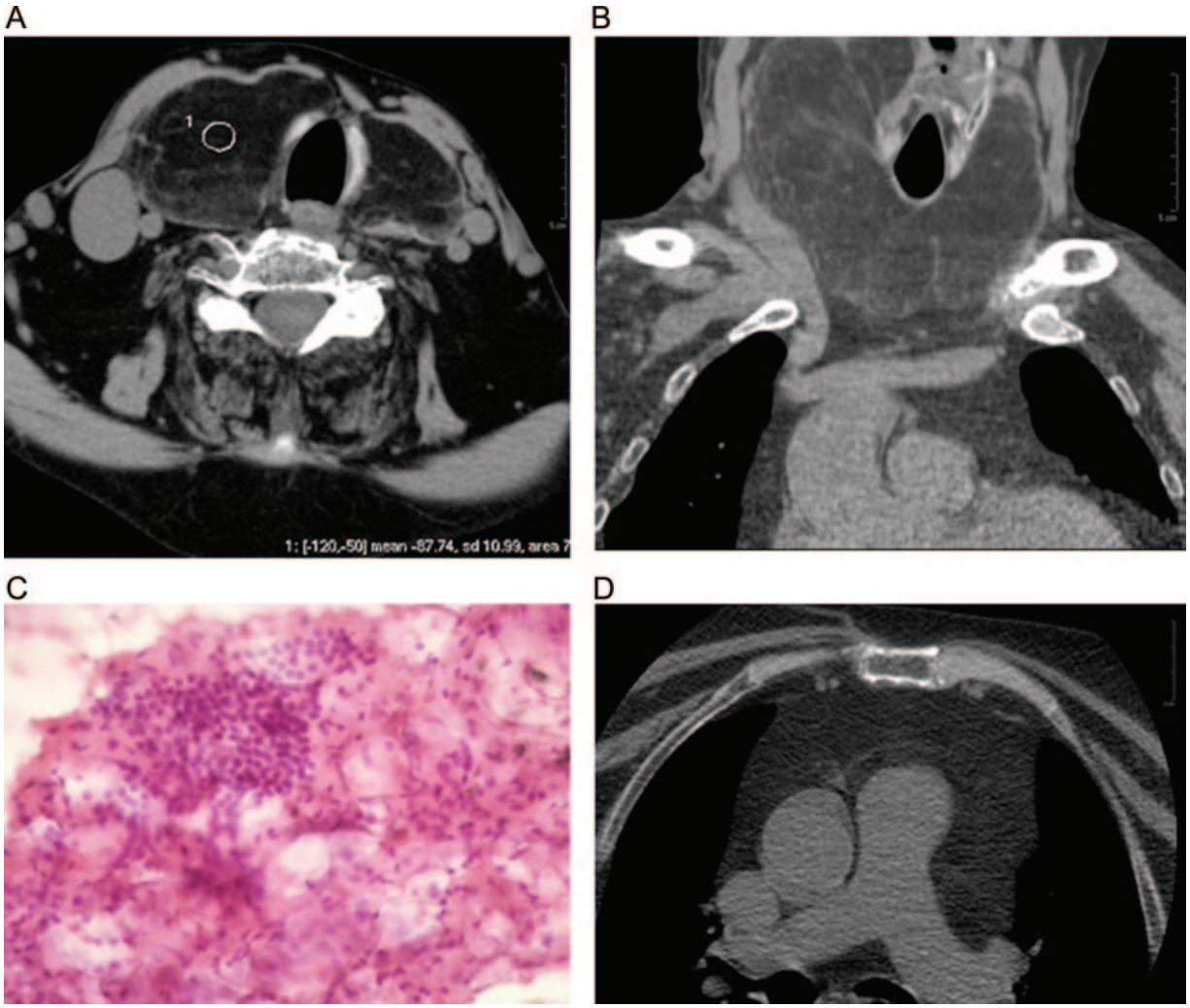

FIG. 1. A and B, Non-contrast-enhanced CT in axial and coronal view showed a diffuse goiter with adipose density (-87 Hounsfield Units), slightly compressing the trachea. C, Fine needle aspiration cytology demonstrated mature fat tissue, making up the bulk of the enlarged gland (Papanicolau stain, original magnification, ×100). D, Axial CT scan at a lower level demonstrated anterior mediastinal lipomatosis.