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CASE REPORT

Thyroid lipoadenoma: a case report of a rare condition☆

Lipoadenoma de tireoide: relato de caso desta rara apresentação

Giulianno Molina de Melo[a,*], Natalya de Andrade Bezerra[a], Lais Pacca Nicolellis[a], Bruno Costa Fontainha[a], Ricardo Antenor de Souza e Souza[b]

[a] *''Jorge Fairbanks Barbosa'' Department of Clinic and Head and Neck Surgery, Hospital Beneficência Portuguesa de São Paulo, Universidade Federal de São Paulo (UNIFESP), São Paulo, SP, Brazil*
[b] *Hospital da Beneficência Portuguesa de São Paulo, Brazilian Society for the Progress of Science (SBPC), São Paulo, SP, Brazil*

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Introduction

Lipoadenoma, thyrolipoma, or adenolipoma is an exceedingly rare benign lesion formed by fat and thyroid tissue.[1–3] Its origin is unknown; a number of authors explain it as an abnormality arising during thyroid encapsulation or from fibroblast metaplasia following hypoxia.[3–5] The distinction between thyroid and parathyroid lipoadenoma is subtle and requires confirmation with a positive thyroglobulin test. The clinical presentation is one of thyroid nodules, with or without compressive symptoms.[2,3]

Case report

L.R., a 53-year-old female patient, presented with a one-year history of a solitary enlarging thyroid mass. On physical examination, a 2-cm fibroelastic nodule on the left thyroid lobe and 4-mm nodules and cysts on the right lobe were found. Laboratory tests were normal, and fine-needle aspiration of the 2-cm nodule revealed the lesion to have a follicular pattern. Total thyroidectomy was performed and frozen sections confirmed a follicular lesion. Following immunohistochemical staining, the diagnosis was thyroid lipoadenoma (Fig. 1).

Discussion

Fat tissue in the thyroid gland is not common; it is more often found macroscopically or microscopically[3–5] in parathyroid glands, breast, thymus, salivary glands, and pancreas[2,3] in a diffuse or encapsulated arrangement. Its behavior is benign, but as it increases in size it can cause cervical enlargement and compressive symptoms, such as dyspnea and dysphagia.[1–3] In the present report, the symptom was a slowly enlarging cervical swelling. Ultrasonography is the most common procedure used in the work-up, followed by fine-needle aspiration, as recommended in the ATA and LATS guidelines,[3,5] but the lesion is so uncommon, there is no differential diagnosis listed for lipoadenoma.

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* Corresponding author.
E-mail: giuliano_molina@hotmail.com (G.M. de Melo).

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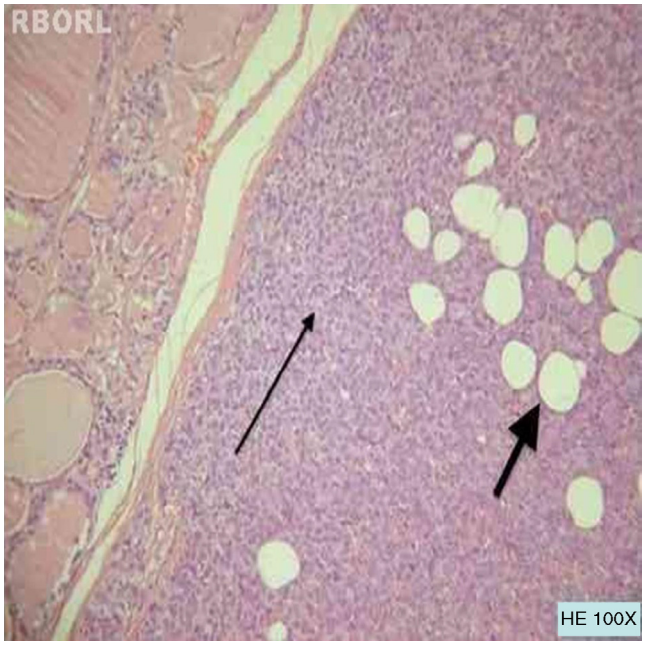

Figure 1 Lipoadenoma in thyroid gland encapsulated nodule. HE 100×, Thick shorter arrow, adipocyte accumulation; thin longer arrow, benign follicular cells.

There are fewer than 30 reports of adenolipomas in the literature, and most cases are that of females in their fifties, similar to the case reported here.[2,5,6] In a literature review on MEDLINE, using lipoadenoma as the indexer between November of 1971 and January of 2012, 46 reports were retrieved, but none of them assessed thyroid gland adenolipoma. By using the LILACS platform between 1982 and 2000, three reports with the keyword adenolipoma were retrieved, but none of them discussed thyroid adenolipoma or lipoadenoma. The search using adipose tissue AND thyroid gland tissue encompasses four differential diagnoses: papillary carcinoma, intrathyroidal thymic lipoma, intrathyroidal parathyroid lipoma, and lipoadenoma.[1,3,5,6]

In the literature, patients with lipoadenoma had normal thyroid gland function and scans, as did our patient, in whom the fine-needle aspiration diagnosis revealed only a follicular-pattern lesion and did not show the presence of adipose tissue. A lack of cytological criteria differentiating a thyroid lipoadenoma from a thyroid follicular lesion was likely the cause.[2,5,6] The definitive diagnosis from the pathology and immunohistochemical staining reports was made only after surgery, as is typical for cases described in the literature.[1,2] In our report, total thyroidectomy was performed consistent with the criteria from the literature for thyroid gland nodules, since the specimens were from bilateral nodules and required diagnostic elucidation.[3,4] The patient currently maintains normal thyroid hormone levels through levothyroxine replacement.

The present report aimed to add more data to the literature, with the purpose of better understanding of this rare condition, and possibly to promote a management change in order to avoid surgical approach in selected cases.

Final remarks

The present report concludes that the correct preoperative diagnosis of thyroid lipoadenoma is still difficult due to the rarity of this condition. The definitive treatment consists of total surgical resection and, due to its benign histology, the outcome is very favorable. Further studies with cytological criteria are required to re-evaluate the need for surgery in these cases.

Conflicts of interest

The authors declare no conflicts of interest.

References

1. Gupta A, Mathur SK, Batra C, Gupta A. Adenolipoma of the thyroid gland. Indian J Pathol Microbiol. 2008;51:521–2.
2. Veloza A, Manita I, Coelho C, Saraiva C, Nascimento I, Oliveira A, et al. Adenolipoma da tiroide. Acta Med Port. 2010;23:277–80.
3. Hjorth L, Thomsen LB, Nielsen VT. Adenolipoma of the thyroid gland. Histopathology. 1986;10:91–6.
4. Borges A, Catarino A. Adenolipoma of thyroid gland. Radiology. 2002;225:746–50.
5. Daboin KP, Perez V, Luna M. Adenolipoma of the head and neck: analysis of 6 cases. Ann Diagn Pathol. 2006;10:72–6.
6. Autelitano F, Santeusanio G, Mauriello A, Autelitano M, Palmieri G, Orlandi A, et al. Latent pathology of the thyroid: an epidemiological and statistical study of thyroids sampled during 507 consecutive autopsies. Ann Ital Chir. 1992;63:761–81.