Right lobo-isthmic agenesis of the thyroid: A case report

Sylvain Diembi¹, F Itere-Odzili, Boris Otouana¹, GC Gouoni², Donatien Moukassa³ and Gontran Ondzotto²

¹Department of Otolaryngology, Adolphe SICE General Hospital, Pointe-Noire (Congo)
²Department of Otolaryngology, University Hospital Center, Brazzaville (Congo)
³Laboratory of Medical and Morphological Analysis, Edith Lucie BONGO ONDIMBA General Hospital (Congo)

*Corresponding Author: Dr. Sylvain Diembi, Department of Otolaryngology, Adolphe SICE General Hospital, Pointe-Noire (Congo), Pointe Noire, Tel: 00242055384152; Email: sdiembi@yahoo.fr

Received Date: Sep 10, 2021 / Accepted Date: Sep 15, 2021 / Published Date: Sep 17, 2021

Abstract

The authors report the observation of a 36-year-old woman with right lobo-isthmic agenesis complicated by an adenoma developed at the expense of the left lobe. The patient presented for many years a presumed cystic nodule developed at the expense of the left lobe, having recently increased in volume. Ultrasound and scannographic studies suggested that the right lobe and isthmus were absent. At cervicotomy, it was a hypoplasia of the right lobe and isthmus.

Keywords: Congenital Anomaly; Thyroid; Lobar Agenesis; Clinical Case


Copyright: This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. Copyright © 2021; Sylvain Diembi

Introduction

A defect in the embryological development of a thyroid lobe is a rare anomaly [1]. The single thyroid lobe is a rare anomaly that was first described in 1895 by MARSHALL HARADO et al. He reported over a period of 13 years, seven (7) cases out of 12456 thyroid surgeries performed. In the literature, some authors report rare cases of complete agenesis (athyreosis), agenesis of a lobe and/or of the isthmus [1-5]. We report the anatomoclinical observation of a lobo-isthmic agenesis observed in a young woman.

Clinical observation

A 36-year-old woman, with no particular history, was admitted to the Department of Otolaryngology, Adolphe SICE General Hospital (Pointe-Noire, Congo) on April 16, 2017 for management of a cystic nodule in the left lobe of the thyroid. This nodule had been known and monitored since 2016 and had recently increased in size. Clinical examination noted a palpable left para-isthmic mobile nodule measuring 5 cm x 3.6 cm, mobile on swallowing. The soft tissue x-ray of the neck did not reveal any pathological calcifications. The ultrasensitive TSH level was normal: 1.76 µ/ml (N: 0.2 - 4.3 µ/ml). Thyroid ultrasonography showed several sharply
contoured, iso echogenic nodules 5-18mm in diameter with cystization of some nodules belonging to the left thyroid lobe, associated with an absence of the right lobe and isthmus. As thyroid scintigraphy was not available in our practice, we performed a cervico-thoracic CT scan which demonstrated the existence of a left thyroid lobe and the absence of the right lobe and isthmus. The indication of a lobectomy was retained; intraoperatively, in the thyroid lodge, there was neither a right lobe without the thyroid isthmus, measuring 6 cm in length (figure n°1 and 2); however, on the left side, several cystic nodules developed at the expense of a single lobe were discovered. The microscopic examination of the surgical excision specimen concluded to a colloid adenoma, of involutive aspect, developed on a dystrophic thyroid tissue, without signs of malignancy (figure n°3). The postoperative course was simple, however, a postoperative hypothyroidism had led to the indication of a life-long opotherapy. In total, it was a colloid adenoma developed on a single left lobe in a context of right lobo-isthmic agenesis of the thyroid in a young woman aged 36 years.

**Figure 1:** The unique thyroid lobe observed intraoperatively, with cystic nodules.
Right lobo-isthmic agenesis of the thyroid: A case report

DOI: https://doi.org/10.36811/ojor.2021.110012

Discussion

In our current practice of thyroid surgery performed over a period of 10 years at the Adolphe SICE General Hospital in Pointe-Noire, Congo Brazzaville; out of 350 thyroidectomies performed, only one case of colloid adenoma on a single lobe of the thyroid in the context of right lobo-isthmic agenesis was observed. In the literature, partial or total lobar agenesis of the thyroid is an anomaly of

Figure 2: Macroscopic aspect of the unique thyroid lobe without the isthmus, measuring 6 cm in length.

Figure 3: Microscopic aspect: involutive colloidal adenoma.
right lobo-isthmic agenesis of the thyroid: A case report

DOI: https://doi.org/10.36811/ojor.2021.110012

OJOR: September-2021: Page No: 18-22

Our case is a young woman, 36 years old, with Lobar agenesis of the thyroid which is generally confirmed by ultrasound as reported respectively by BENRAIS et al [12]. The differential diagnosis is essentially with an autonomous thyroid nodule or a surgical lobectomy. However, CHIMENES et al reported an observation of a toxic adenoma developed on a single thyroid lobe, where all the examinations as well as the surgical verification had failed [13]. This macroscopically invisible lobe functioned perfectly once the inhibition was removed. Surgical treatment of nodular pathology on a single lobe is the treatment of choice according to most authors; post-surgical replacement therapy with L-thyroxine for life is essential. BECQ-GIRAUDON et al do not recommend the use of radioactive iodine ; on the other hand, and tolerate the use of radioactive iodine up to 10,000 rads in the single lobe of the thyroid in cases of hyperthyroidism [14].

Biologically, the normal serum TSH level, as well as the absence of an increase in serum TSH, allows a priori to eliminate the possibility of a chronic autoimmune thyroiditis. The observation that we report is similar to the various cases of hemi-agenesis reported in the literature in several respects : hemi-agenesis is frequent in the female population (sex ratio: 3/1) [2,7,15], the diagnosis is usually of fortuitous discovery at scintigraphic exploration. The scintigraphy is requested in front of a unilateral increase in volume of the thyroid [16,17]. The remaining lobe is often the site of colloid adenoma as in our patient's case, or of other types of lesions, such as adenocarcinoma, congenital or acquired hypothyroidism, hyperthyroidism, multinodular goiter, Graves' disease, or Hashimoto's disease [18,19].

Conclusion

Lobar agenesis of the thyroid is an exceptional anomaly that can be evoked in front of an isolated paramedian thyroid formation. Its discovery is often fortuitous and is facilitated by the more and more performing diagnostic means, such as cervical ultrasound, scintigraphy and CT scan.

www.raftpubs.com
Right lobo-isthmic agenesis of the thyroid: A case report

References


