

Thyroid cancer in a child with graves's disease

M S Merad¹, A. Benouis², F. Mohammedi¹.

(1) Endocrinology and Diabetology Service -Laribere Clinic –university Hospital Dr Benzerdjeb Oran (Algéria).

(2) Biology Laboratory of Developmental and Differentiation university ES-Senia Oran(Algéria).

Introduction

Differentiated thyroid carcinoma (TDC) is a rare disease. In children and adolescents it remains exceptional since it represents only 1 to 2% of childhood cancers and It represents only 1% of all cancers.

Traditionally, thyroid cancer and hyperthyroidism are considered to be mutually exclusive antinomic entities of thyroid pathology. However, cancer-hyperthyroidism has now become a proven fact.

Obsevation

We report an observation of a 10-year-old girl from a goitrous endemic area (CHLEF) with exophthalmia. It shows signs of obvious thyrotoxicosis with with a very firm, homogeneous and asymmetrical goiter on the right.. A hormonal assessment, an echography and a thyroid scintigraphy confirm the diagnosis of Graves' disease.

Patient is treated with ATS for 4 years and then operated on by total thyroidectomy. The patient was then placed on levothyrox and a follow-up ultrasound as well as the operative and anapathological report were requested.

Results

Pre-operative check-up :

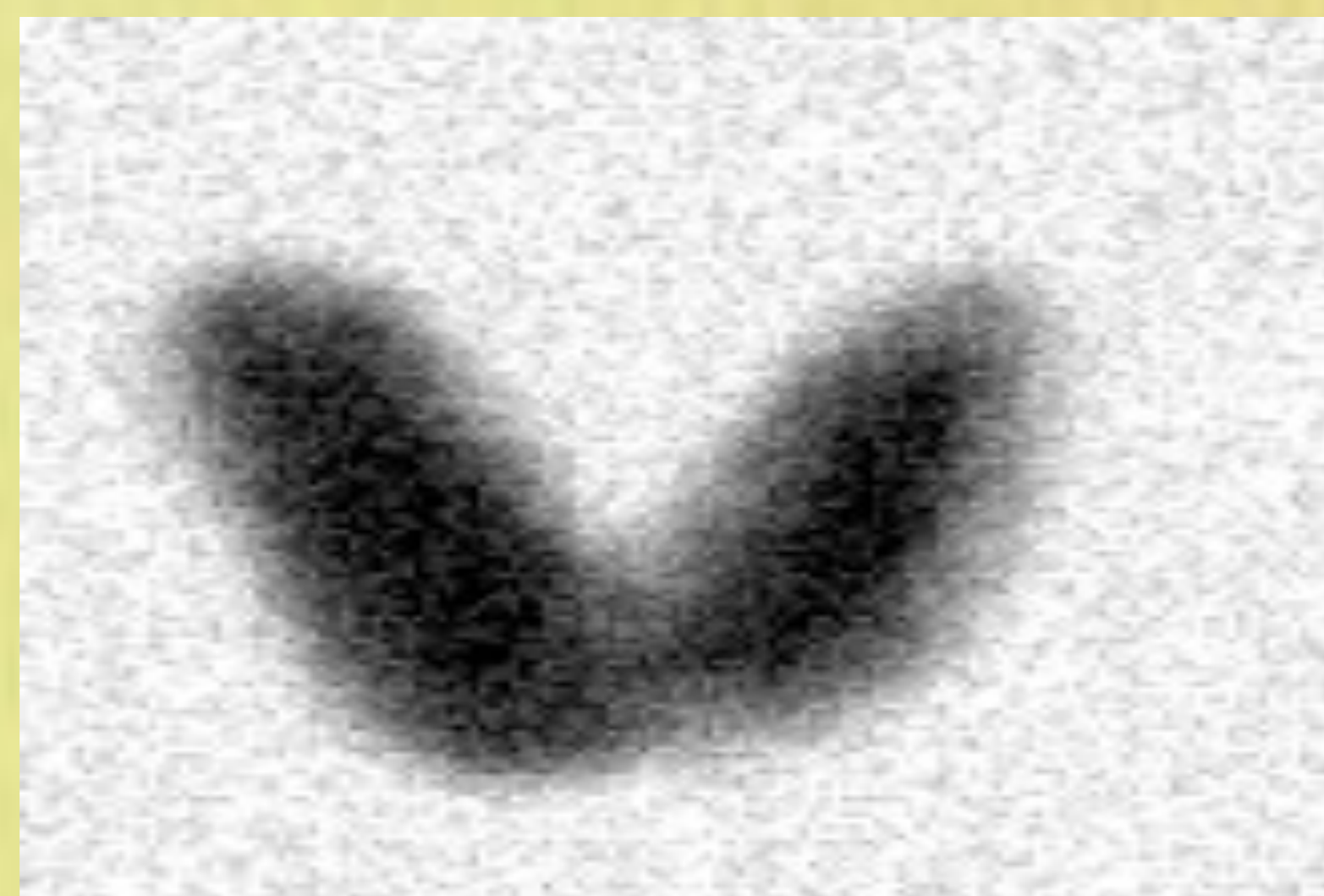
	Results	standards
TSHus	0.05 UI/ml	0.25-3.1
FT4	44.4 pmol /L	10.7-21.7
FT3	8.1 pg/ml	1.21-4.18

CERVICO THYROIDIAN ULTRASOUND :

Homogeneous diffuse goiter of the 02 thyroid lobes of regular contour.

THYROIDIAN SINTIGRAPHY :

homogeneous hyperfixation scan compatible with basedow disease



Post-operative check-up :

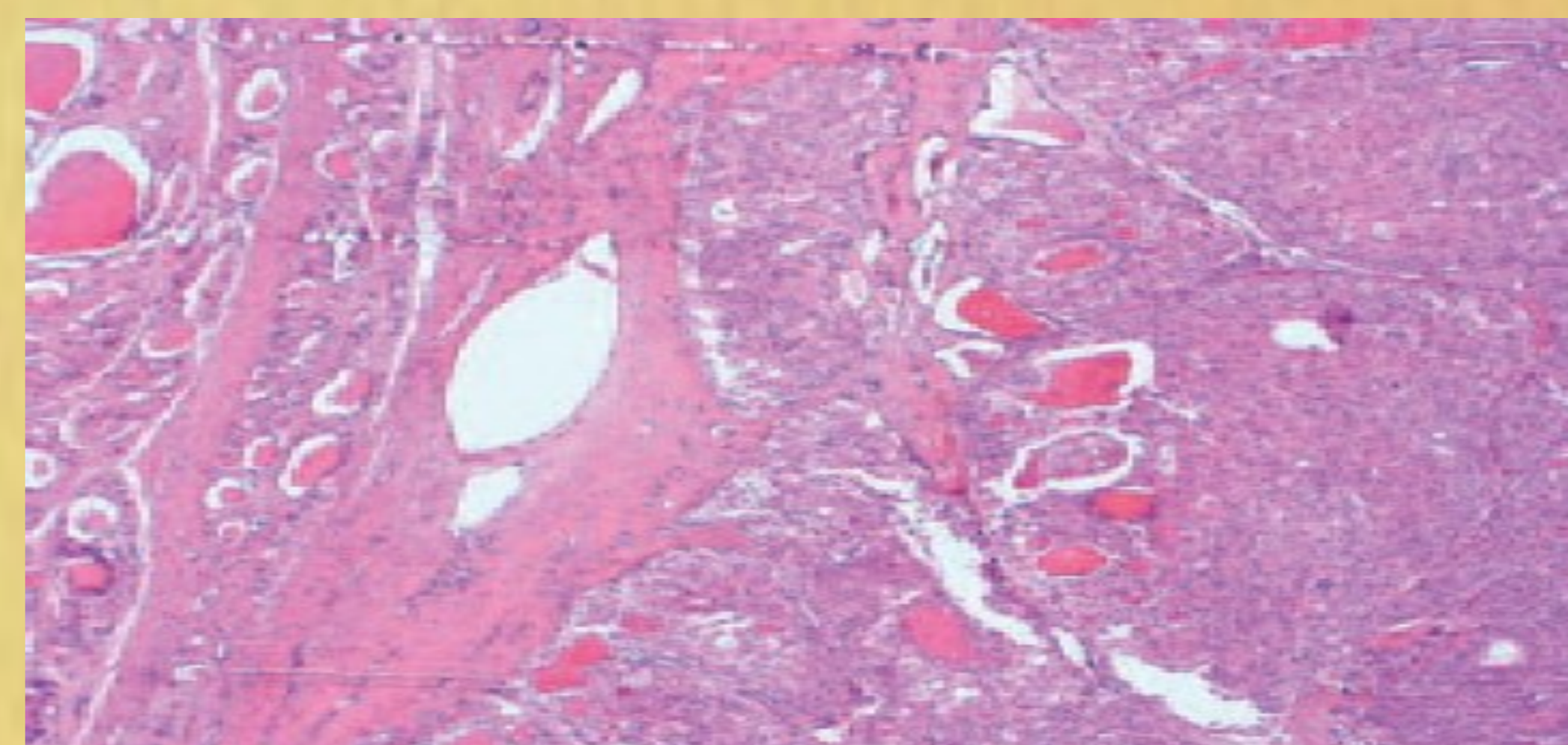
	Results	standards
TSHus	06.32 µUI/ml	0.23-03.80
Calcémie	09.10 mg/dl	09-10.7
Phosphorémie	4.57 mg/dl	2.5-5

CERVICO THYROIDIAN ULTRASOUND :

Empty thyroid compartment with no adenopathy

ANATOMOPATHOLOGICAL EXAMINATION:

Histological aspect of well-differentiated vesicular carcinoma.



The patient is referred to the Nuclear Medicine Department of the TELEMEN CHU for irairatherapy where she receives a dose of 105 mci d I 131 and then is put on a frenator treatment based on 150 µg levothyrox per day with regular follow-up.

The follow-up is ensured at our level since already 5 years without any other complication.

Discussion

The association of differentiated thyroid cancer with Basedow disease is considered rare. The prevalence of thyroid cancer in Basedow disease varies in the literature between 0.4% and 9.8%. This diversity of results can be explained by the variability in the quality of anatomopathological examinations, the criteria used to establish the operative indication, the diagnostic criteria for Basedow's disease (sometimes difficult distinction with a basedowified goitre) and finally the variable prevalence of thyroid cancer from one country to another.

The presence of a cold nodule in a hyperfunctional goiter corresponds to a cancer risk of 46% against 3% in hyperthyroid patients with homogeneous goiter and without nodule.

From a therapeutic point of view, these notions involve promoting the surgical treatment of toxic nodular goitres, Basedow diseases, associated with a palpable or cold nodule. During surgical treatment, an extemporaneous examination must be asked systematically, indicating a total thyroidectomy if cancer is detected. The isotopic management of hyperthyroidism and thyroid cancer follows the same treatment and monitoring strategy for differentiated thyroid cancers in case of euthyroidism.

Conclusion

Our observation reinforces the literature series on the frequency of association of Basedow's disease and thyroid carcinoma in children and emphasizes the message that hyperthyroidism is not a guarantee against thyroid cancer.