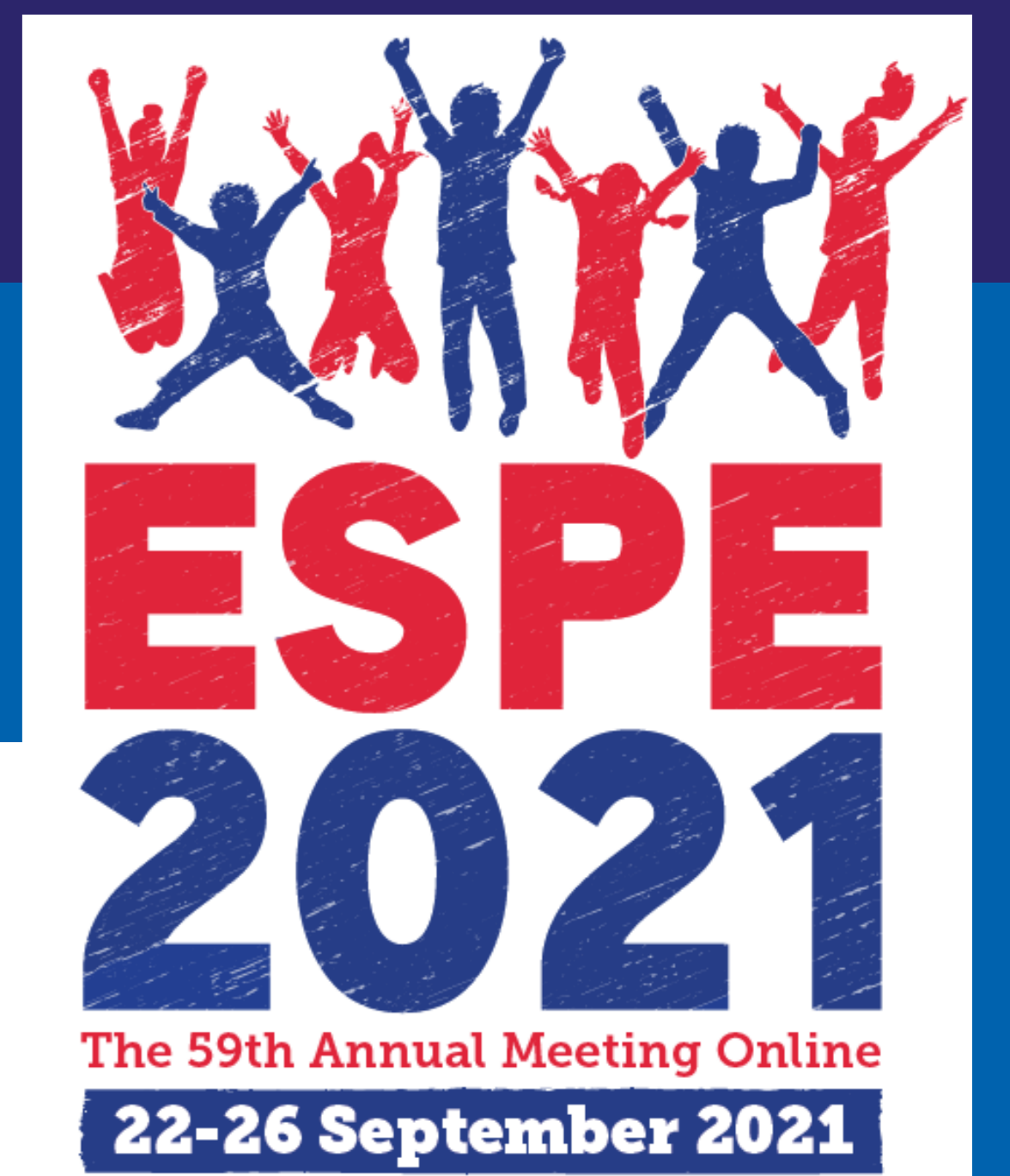


# Prevalence and Characteristics of thyroid nodules in a pediatric population with congenital hypothyroidism

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## INTRODUCTION

Thyroid dysmorphogenesis accounts for 10-15% of permanent congenital hypothyroidism. Patients can present with goiter. Thyroid nodules may also be associated.

## AIM

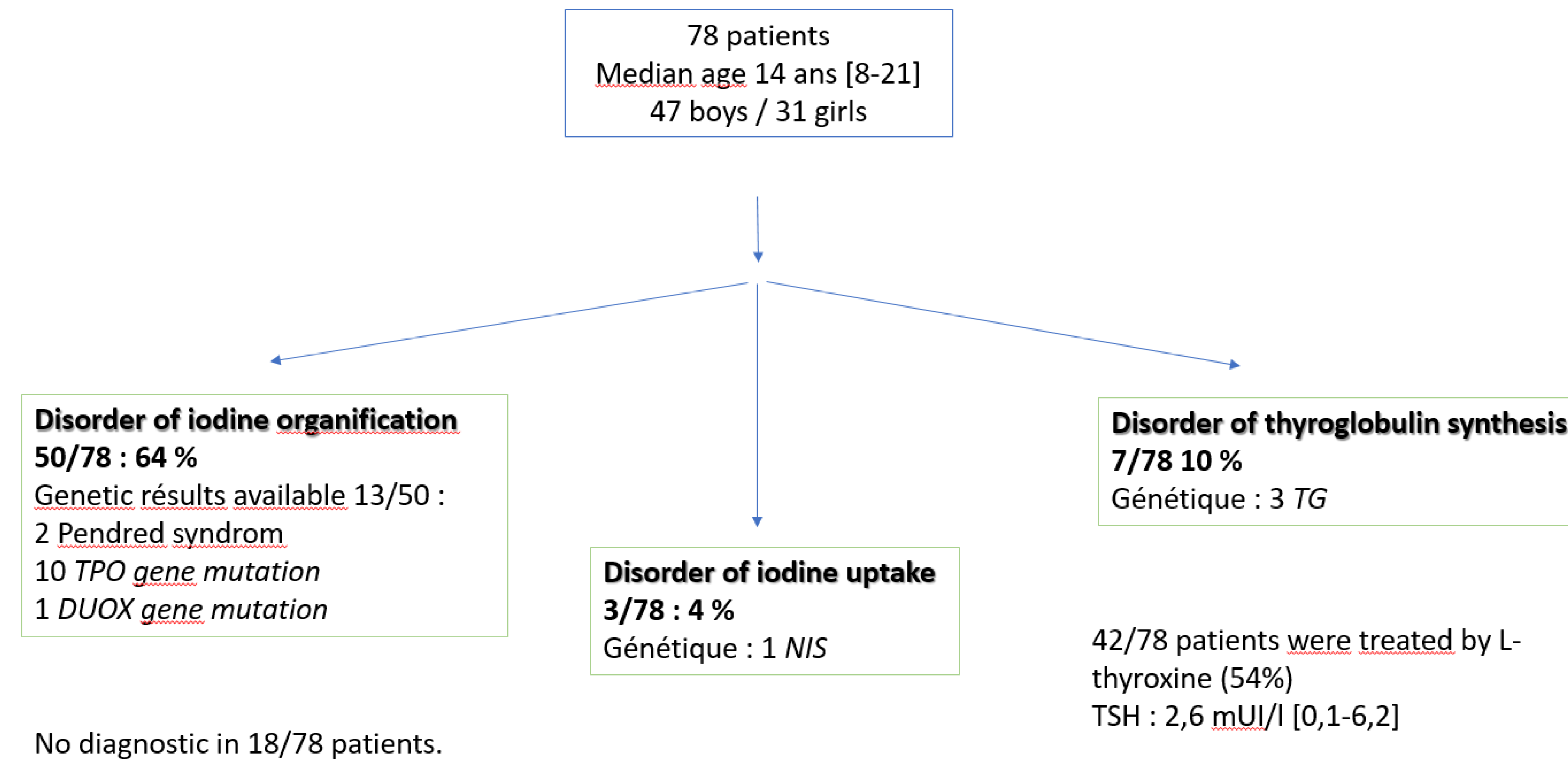
To assess the characteristics of thyroid nodules among infants diagnosed with thyroid dysmorphogenesis and to discuss the interest of a systematic screening.

## METHOD

A retrospective study of children with congenital hypothyroidism due to dysmorphogenesis was carried out at the pediatric endocrine center in Kremlin Bicêtre hospital, Paris, between 1999 to 2020.

A screening ultrasound for thyroid nodules was then performed from July 2019 to July 2020 if no recent analysis was found (>3 years).

## RESULTS



Diagnosis was **thyroid cyst in 6/10 patients, Follicular lesion in 1/10, papillar carcinoma in 2/10** (1/2 patient with TPO gene mutation) et 1 multinodular thyroid.

## CONCLUSIONS

The prevalence of thyroid cancer in our pediatric population is 2.5%, the prevalence of nodules is 7.6% including 20% of malignant nodules. Thyroid cancer occur in younger patients in the context of dysmorphogenesis. Given the importance of this pathology in patients with dysmorphogenesis, we recommend a regular ultrasound follow-up at least every 3 years, and a systematic genetic analysis at diagnosis to identify possible pathogenic variants.

10 Nodules (median size of 17 mm [5-37]) and 1 multinodular goiter were detected In 8 and 1 patient respectively during follow-up (median average of 2.5 [1-3])

Nodule classification :  
1/10 TI-RADS 2  
5/10 TI-RADS 3  
4/10 TI-RADS 4.

Fine needle aspiration biopsy were realised in 3 patients, and 5 had thyroidectomy.