

Grave's disease: what place in the child's hyperthyroidism ?

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Introduction

Hyperthyroidism is a rare and severe disease in children. It is most often caused by Graves' disease (GD).

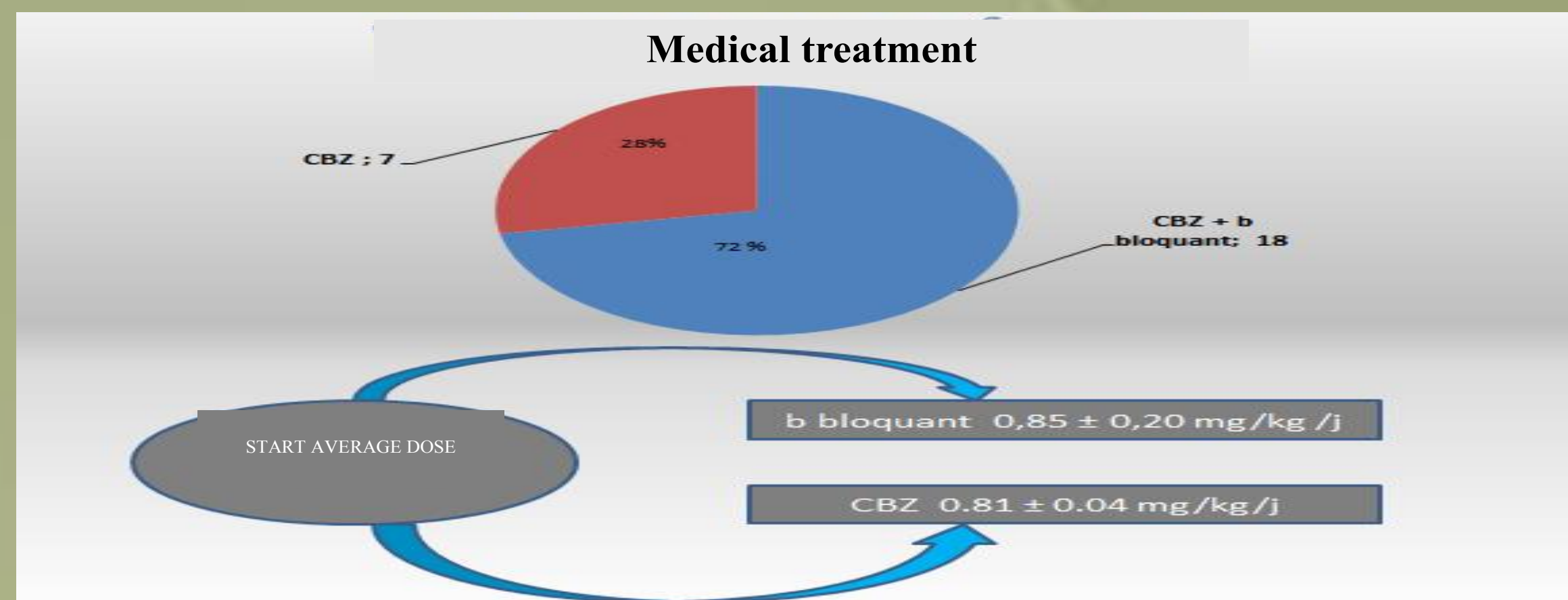
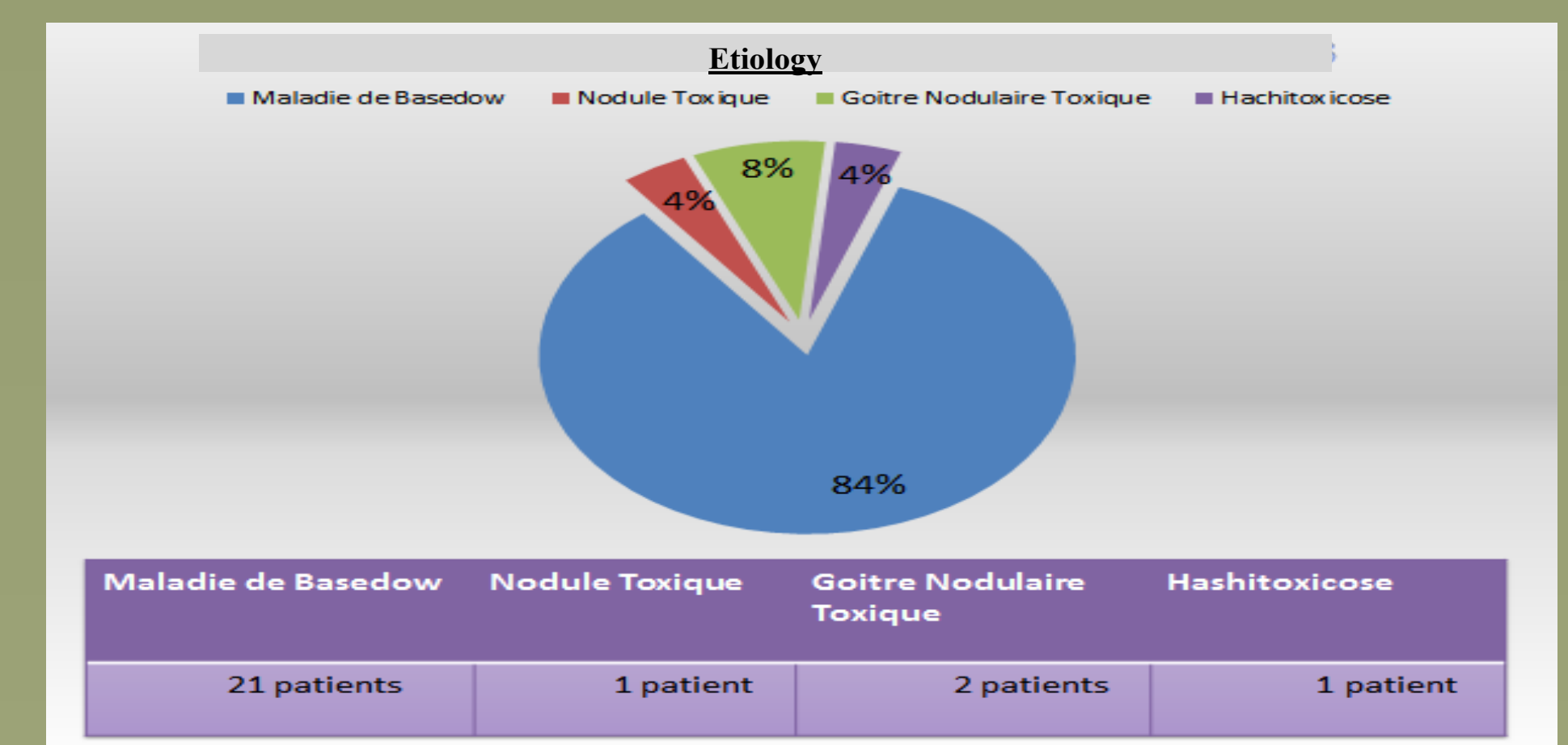
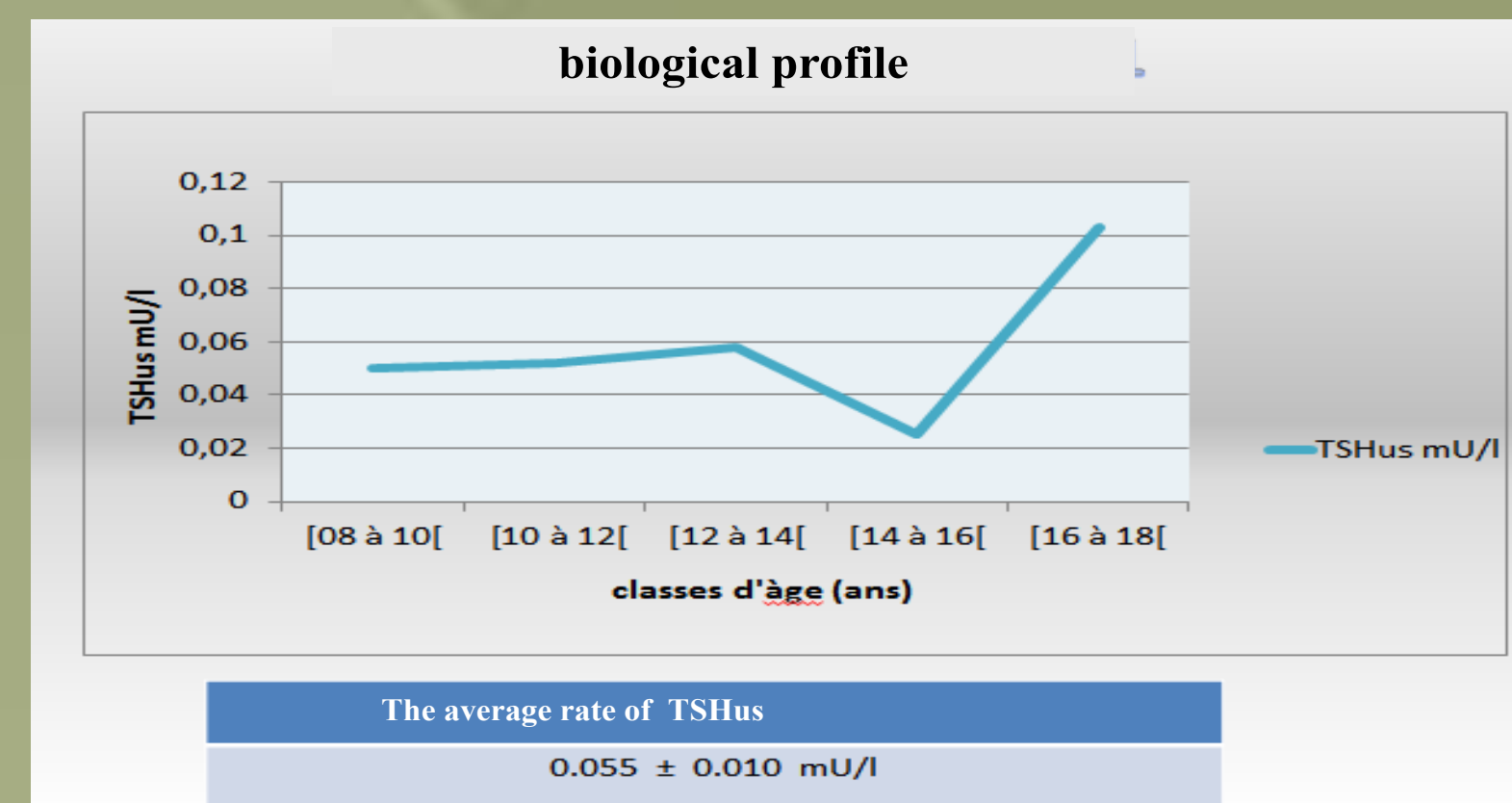
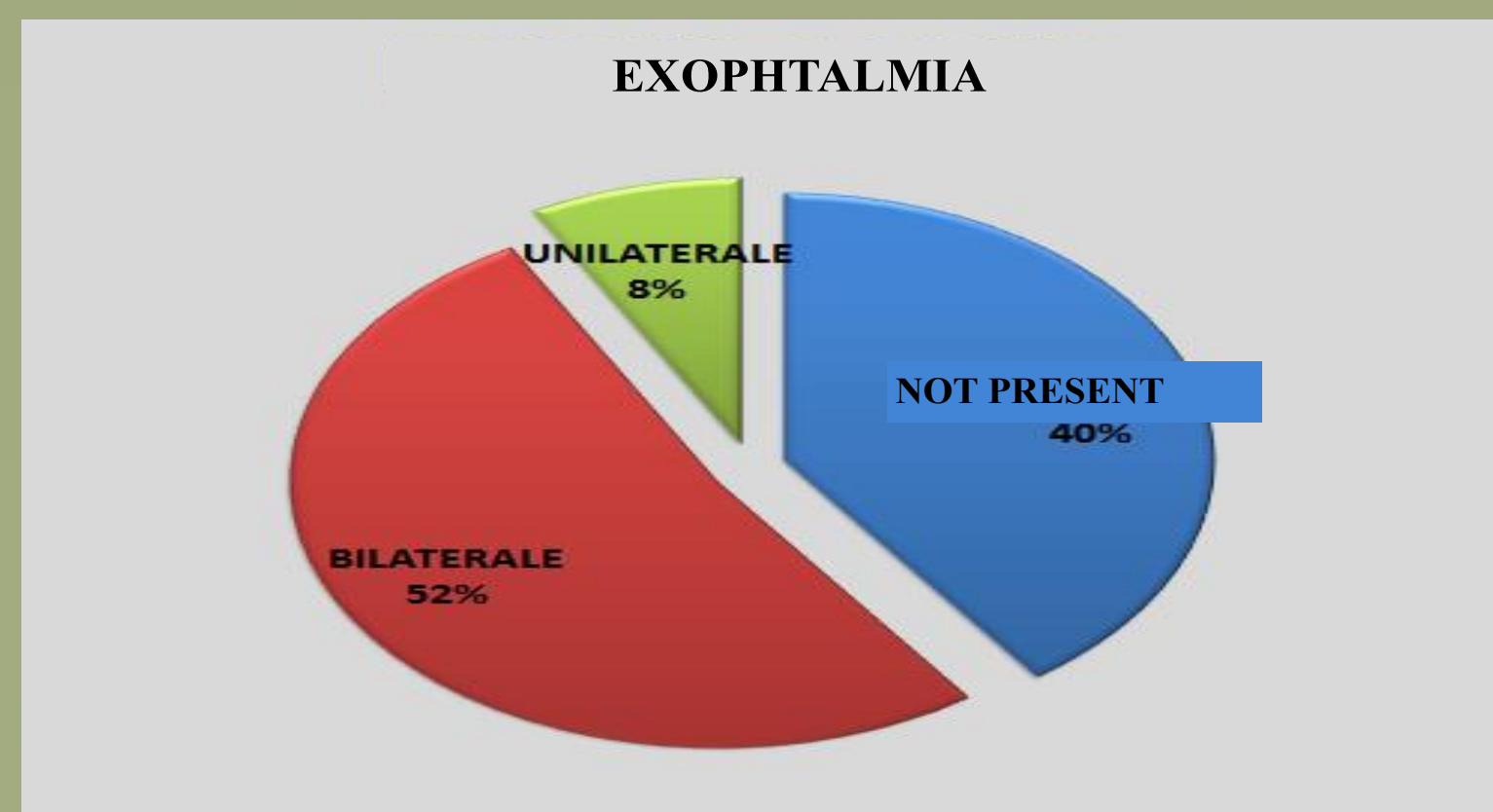
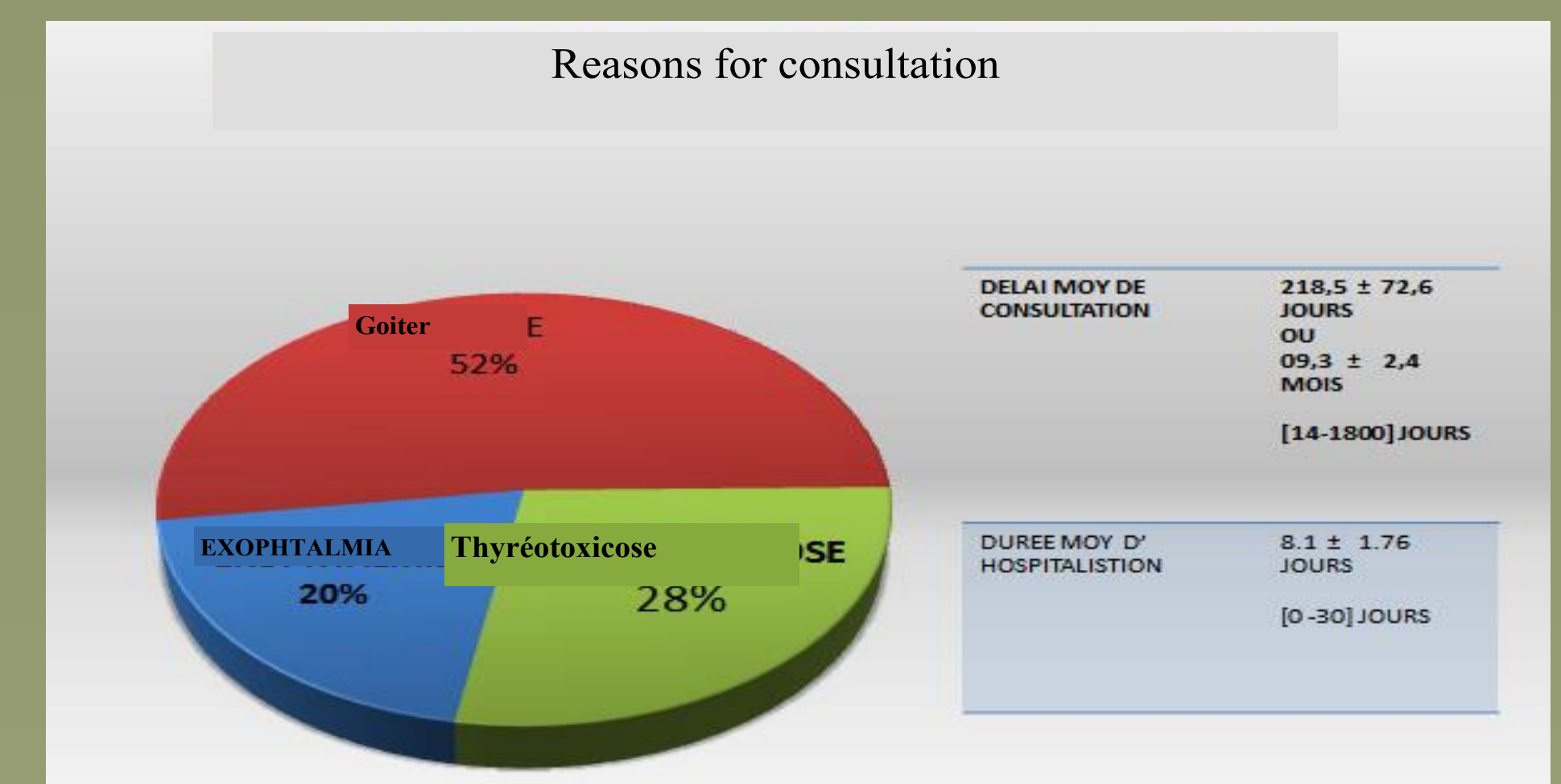
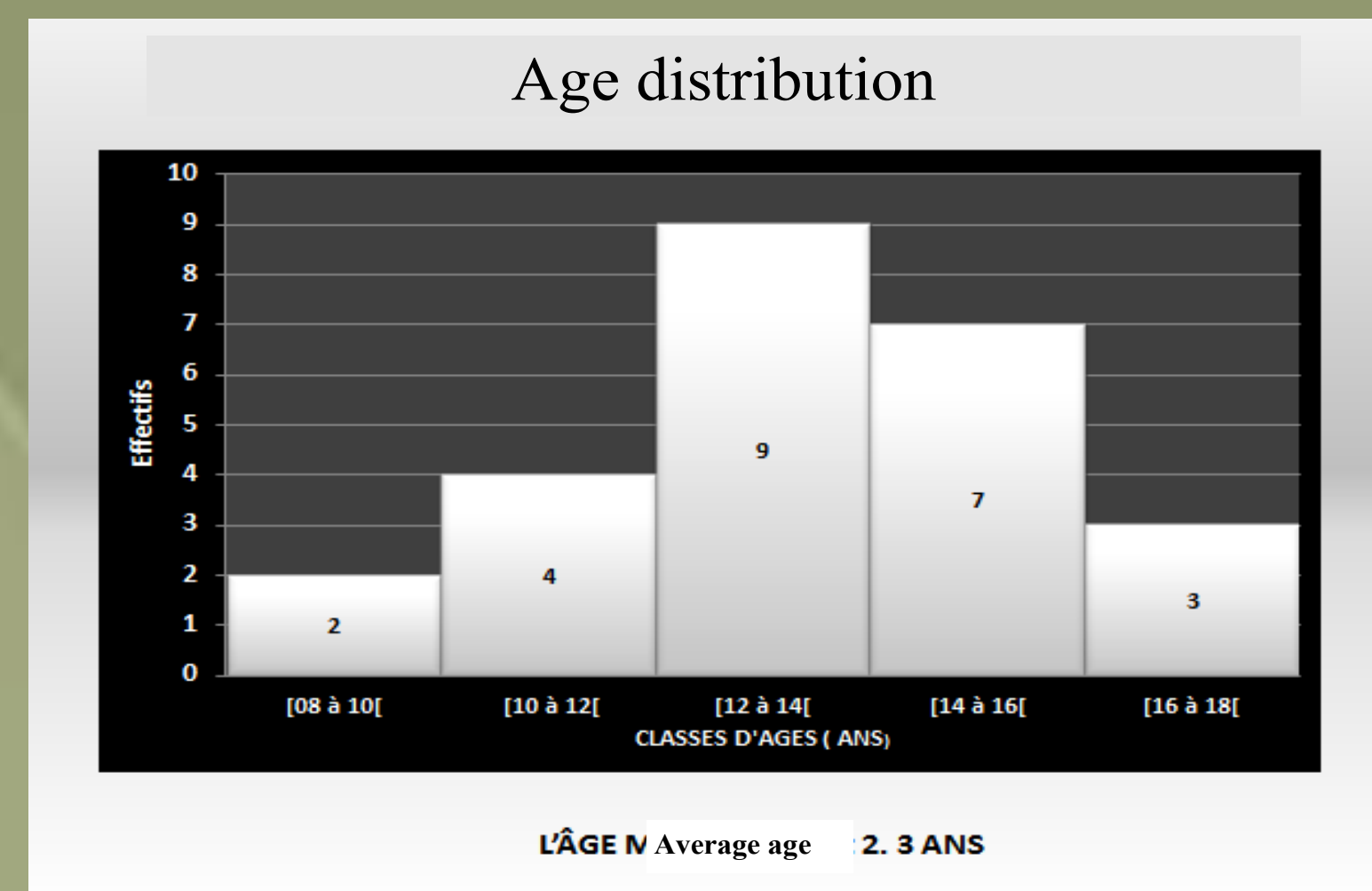
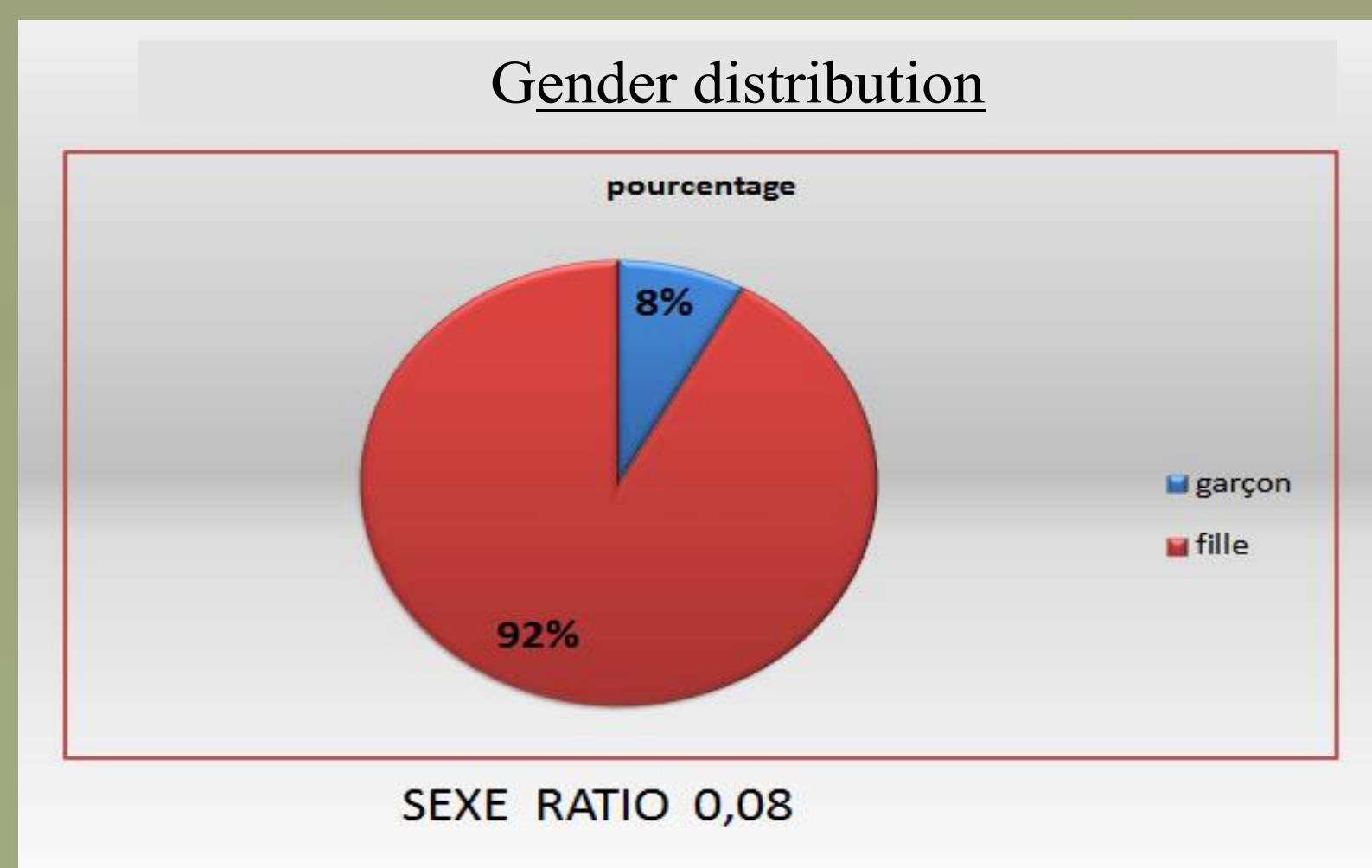
In adults, GD occurs approximately in 0.5% of women. It is rare in children. It occurs in 0.02% of children (1/5000) or 1-5% of patients with Graves' disease. Its incidence is considered to increase, it is estimated at 0.1 per 100 000 persons / years in young children and 3 per 100 000 persons / years in adolescents. There is a strong female preponderance in the child. GD occurs at any age but its frequency increases with age, the peak is recorded at the time of adolescence.

The purpose of this work is describe the epidemiological particularities: Clinical, evolutionary and therapeutic. In children and especially Grave's disease.

Materials and methods:

This is a retrospective study of 25 cases of hyperthyroidism, performed at the endocrinology department of C.H.U. of Oran over 10 years,, the statistical analysis is carried out on the software Epi info 6.fr.

RESULTS



DISCUSSION

| | R. Barrio et al. (1) | M.H. Mokhashi et al. (2) | M. Forssberg et al. (3) | P. Bergman et al. (4) | N. El Ghissassi et al. (5) | NOTRE SERIE |
|-------------------|----------------------|--------------------------|-------------------------|-----------------------|----------------------------|-------------|
| Staff | 20 | 15 | 46 | 40 | 17 | 25 |
| Sexe ratio | 0.11 | 0.50 | 0.17 | 0.35 | 0.10 | 0.08 |
| Durée (year) | 5 | 08 | 10 | 15 | 13 | 17 |
| Age (year) | 12.1 ± 4 | 9.27 ± 3.2 | 11.7 ± 2.5 | 12 | 10.5 | 13.2 ± 2.3 |
| Cardinal Symptoms | goitre | goitre | palpitation | goitre | goitre | goitre |
| Exophthalmia(%) | 55 | 64 | 33 | 44 | 58 | 60 |

(1) R. Barrio et al. Acta Paediatr, 2005. ESPAGNE
 (2) M.H. Mokhashi et al. Indian Journal of Pediatrics, 2000; 67 (9) : 653. INDE
 (3) M. Forssberg et al. Acta Paediatr 93: 25-29. 2004. SUEDE
 (4) P. Bergman et al. J. Paediatr. Child Health (2001) 37, 176-182. AUSTRALIE
 (5) N. El Ghissassi et al. Annales d'Endocrinologie 73 (2012) 306-335. TUNISIE

Our study shows that this is the sex ratio, the age, the reason for consultation or the frequency of exophthalmia, the figures are almost identical in the countries around the Mediterranean.

- According to the results of J. Léger (Paris), the average TSHus at the time of diagnosis is 0.3 mU / l with high levels of FT4 and FT3 as well as some cases of (T3 toxicosis). At the time of diagnosis, all of our patients had mean TSH levels around 0.055 ± 0.010 mU / l with FT 3 and / or FT4 high. ATS treatment is recommended as first line.
- J. Léger asserts that PTU is not recommended for children because:
 - The frequency of side effects is dose-dependent.
 - Under carbimazole, the serious side effects are very low.
 - The latter are effective in a single dose per day, the average starting dose is 0.5 to 1 mg / kg / day.
- The required duration of treatment to achieve remission is 2-4 years and 30% of children achieve sustained remission of their disease after 2 years.
- Scott A. Rivkees (New Haven, Conn., USA) proposes a ban on the use of UTP due to heightened risk of hepatotoxicity and liver transplantation.
- The average starting dose is 0.2-0.5 mg / kg / day of methimazole.
- Remission is between 20 - 30% after 02 years.
- Surgery is offered for children <05 years, weight > 80g, exophthalmos +++ and recurrence after irathérapie.
- In our series:
 - Average starting dose: CBZ 0.81 ± 0.04 mg / kg / day.
 - Remission rate 18% with an average treatment duration of 03 years.
 - 72% of patients are operated after failure of medical treatment, 09% of the patients underwent an irathérapie.

Conclusion

Hyperthyroidism in children is a rare disease, dominated by Graves' disease. The diagnosis is easy and the main difficulty is of a therapeutic nature:

- Difficulty maintaining euthyroidism under antithyroid drugs.
- Failure to sustain adherence to treatment.
- Iterative relapses making radical treatment ultimately necessary in more than three quarters of cases.