

PERCUTANEOUS ETHANOL INJECTION AS A FIRST LINE TREATMENT OF CYSTIC THYROID NODULES

EXPERIENCE AFTER ITS INTRODUCTION IN A UNIVERSITY HOSPITAL

Jordi L. Reverter¹, Núria Alonso¹, Marta Avila², Isabel Ordóñez¹, Maribel Cuadrado¹, Lucía Cano¹, Anna Lucas¹, Dídac Mauricio¹ and Manel Puig-Domingo¹

Department of ¹Endocrinology and Nutrition and ²Pathology, Germans Trias i Pujol University Hospital, Badalona, Spain.

OBJECTIVE

To evaluate the efficacy, safety and patient's pain perception of percutaneous ethanol injection treatment (PEIT) as an alternative to surgery in symptomatic thyroid cysts

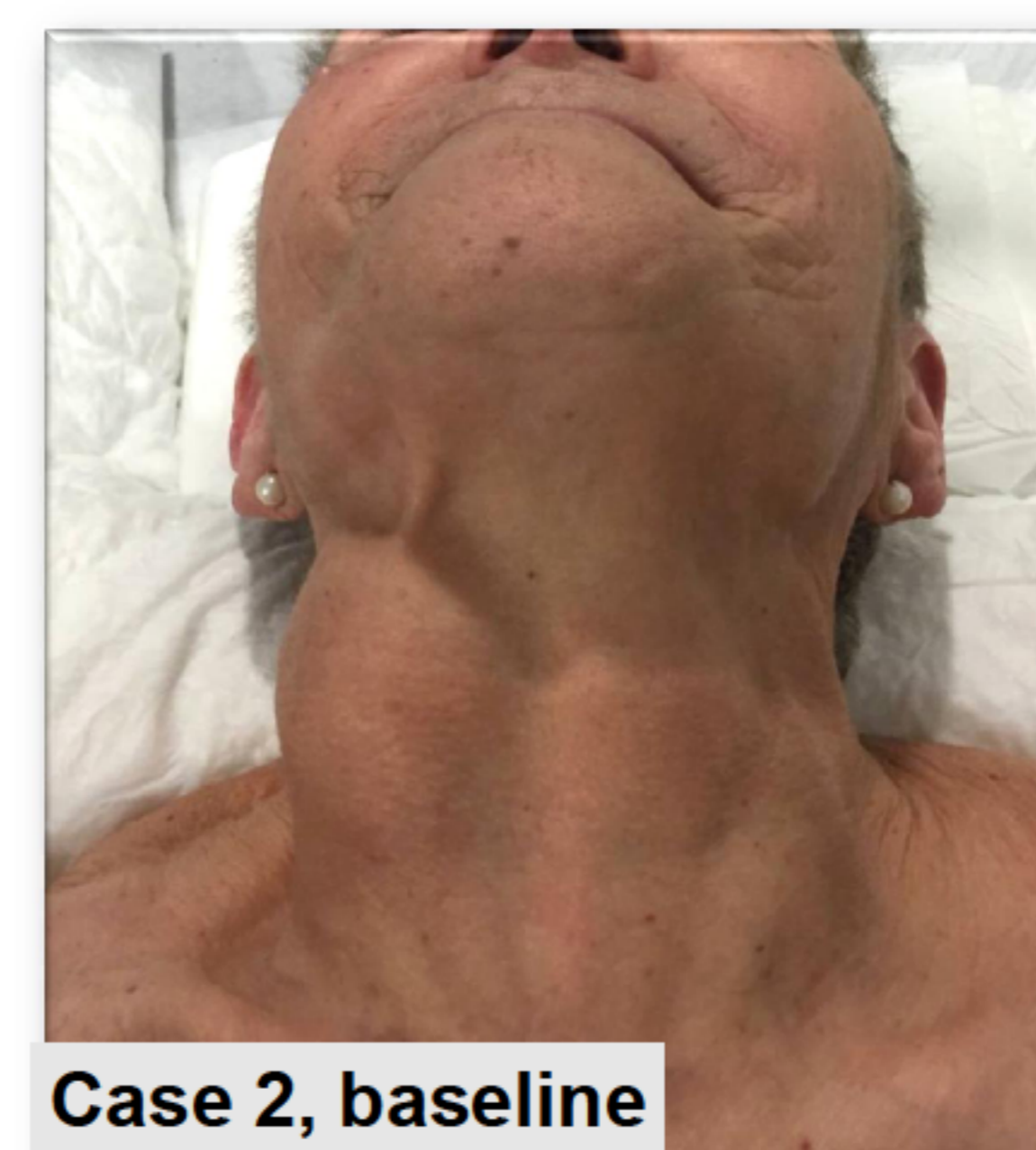
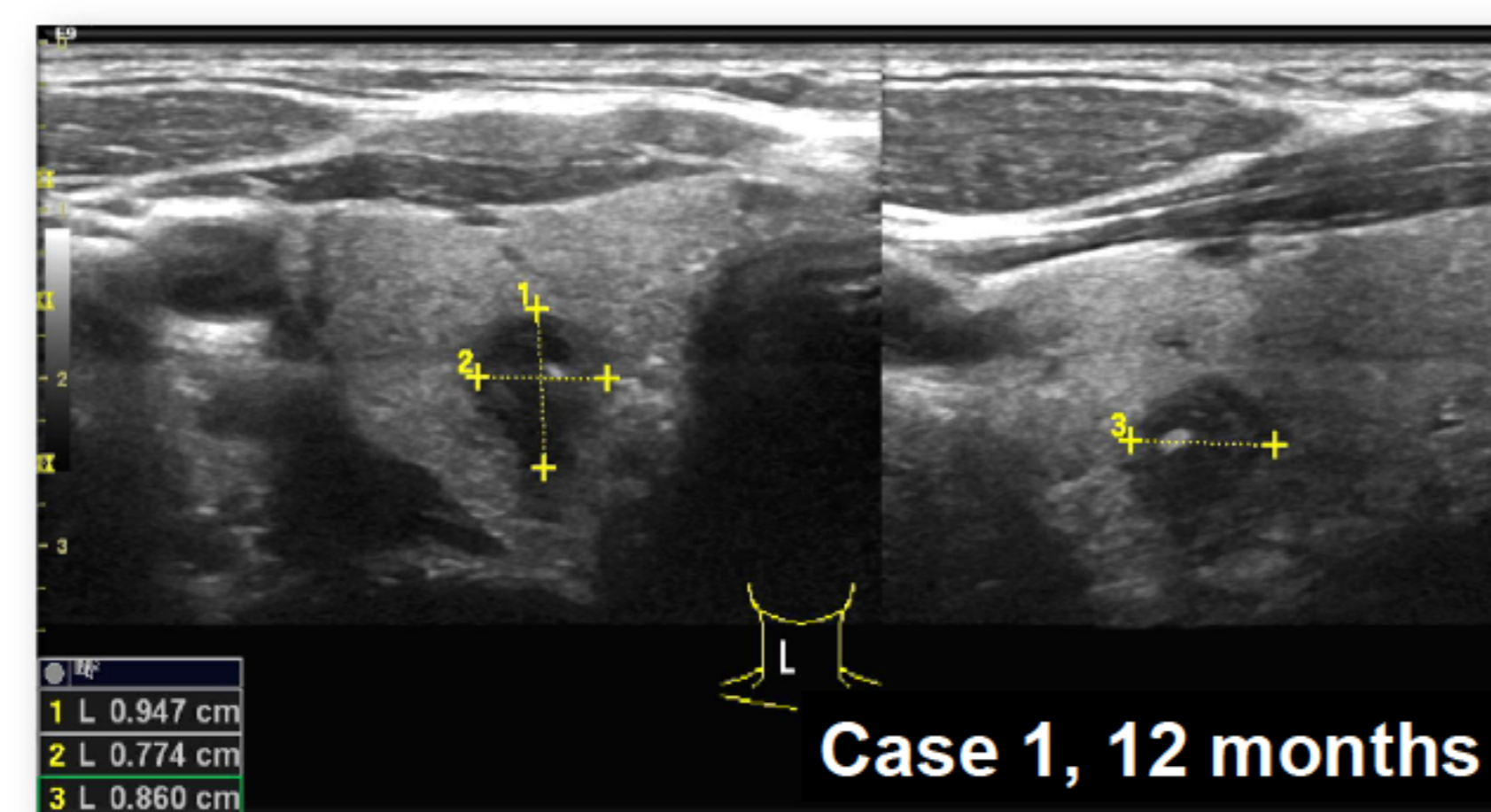
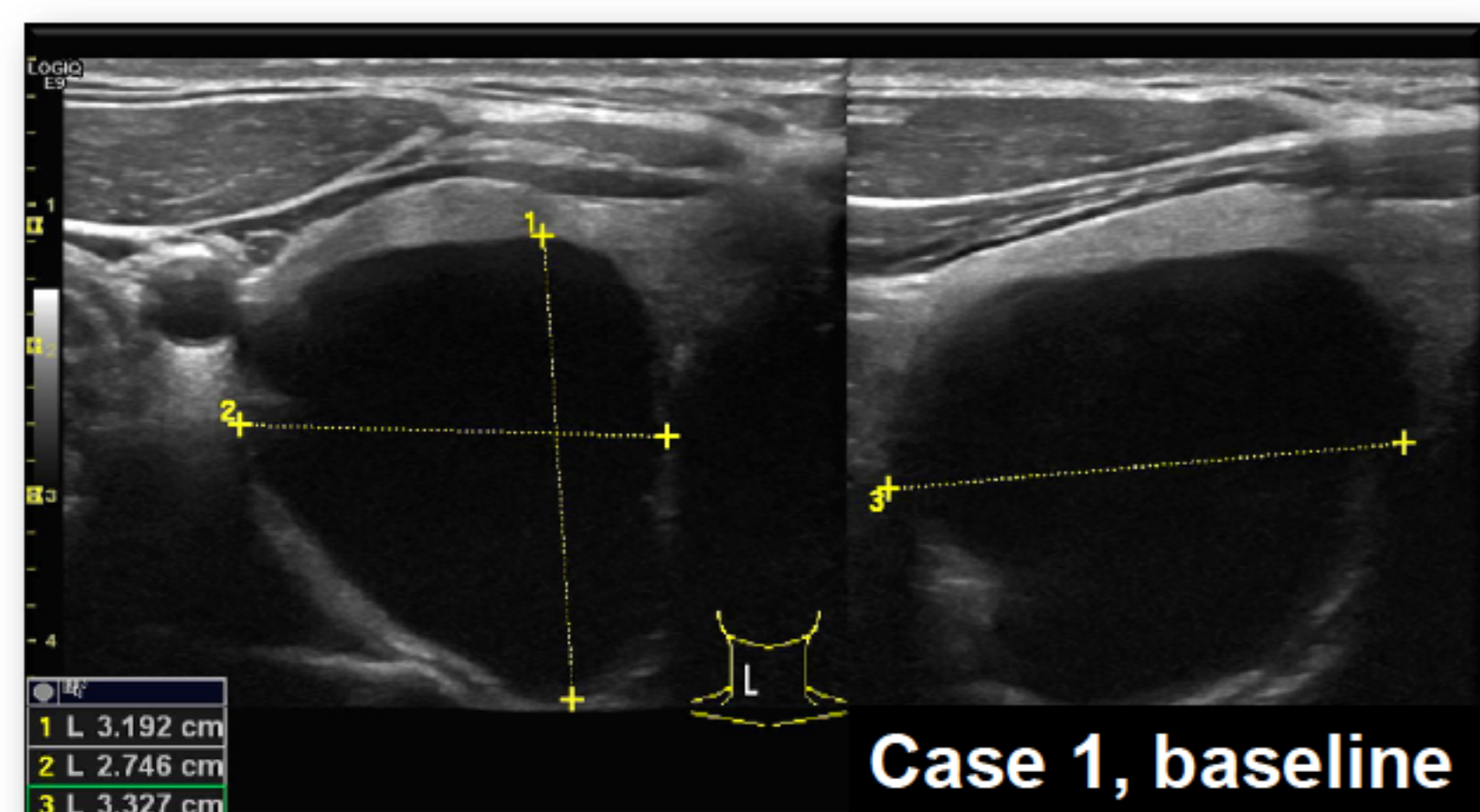
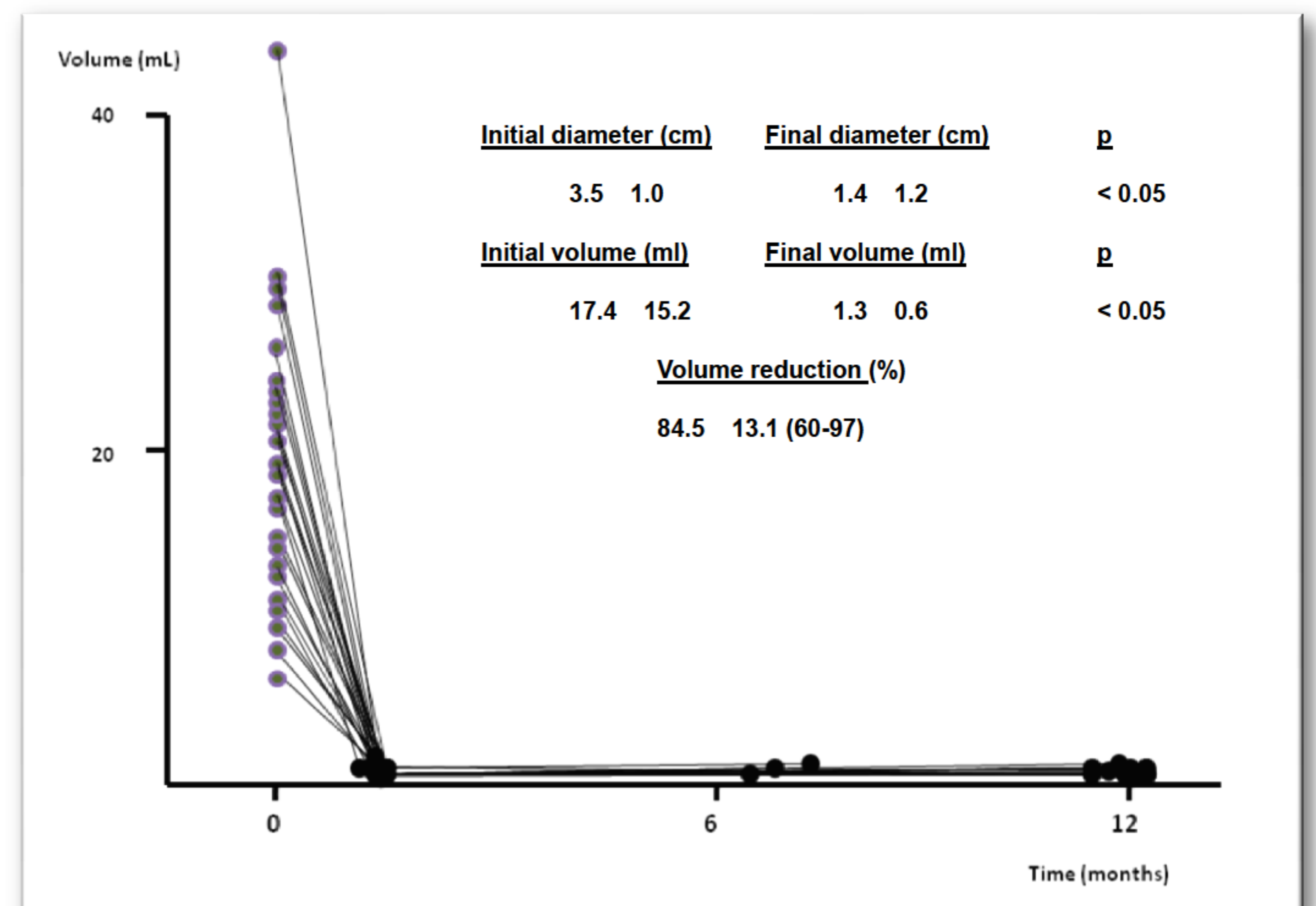
METHODS

- 30 consecutive patients (mean age: 46 ± 10 years; 82% women). Mean symptom duration: 10 ± 20 months.
- Symptomatic thyroid cysts relapsed after first drainage with benign cytology prior to treatment.
- PEIT: Ultrasound-guided. 21G gauge with connector. 99% ethanol. Volume of alcohol instilled < 2 ml.
- Determinations:
 - Maximum cyst diameter and volume
 - Volume of fluid removed
 - Pain perceived by the patient (visual scale: virtually no pain, mild pain, moderate pain and severe pain).
 - Compressive or esthetic symptoms (domestic questionnaire (10: absence of symptoms to 50: severe symptoms)).
 - After follow-up, final cyst diameter and volume were determined and the persistence of symptoms was assessed.

RESULTS

- **Sessions of PEIT to complete procedure:**
 - One: 45%
 - Two: 31%
 - Three or more: 24%
- **Mean extracted liquid volume:** 61 ± 36 ml.
- **Pain perception:**
 - 39% virtually no pain
 - 43% mild pain
 - 17% moderate pain.
- **Follow-up:** 9 ± 3 months
- **Volume reduction:**
 - > 70%: 86.3%
 - > 80% : 61.9%
 - > 90%: 42.0%.
- **Cosmetic complaints or local symptoms of compression:**
 - Initial score: 22 ± 8, final score: 13 ± 5 (p< 0.05),
 - 47% of cases score of 10 (absence of symptoms)
- **No complications**

Fig 1: Evolution of cyst diameter and volume during follow-up



CONCLUSIONS

In our experience, percutaneous ethanol injection has proved to be an effective, safe and well-tolerated first-line treatment of symptomatic thyroid cysts

REFERENCES

- Bennedbaek FN, Hegedüs L: Treatment of recurrent thyroid cysts with ethanol: a randomized double-blind controlled trial. J Clin Endocrinol Metab 2003; 88: 5773-5777
- Papini E, Pacella CM, Hegedus L: Diagnosis of endocrine disease: thyroid ultrasound (US) and US-assisted procedures. Eur J Endocrinol 2014; 170: R133-R146

