

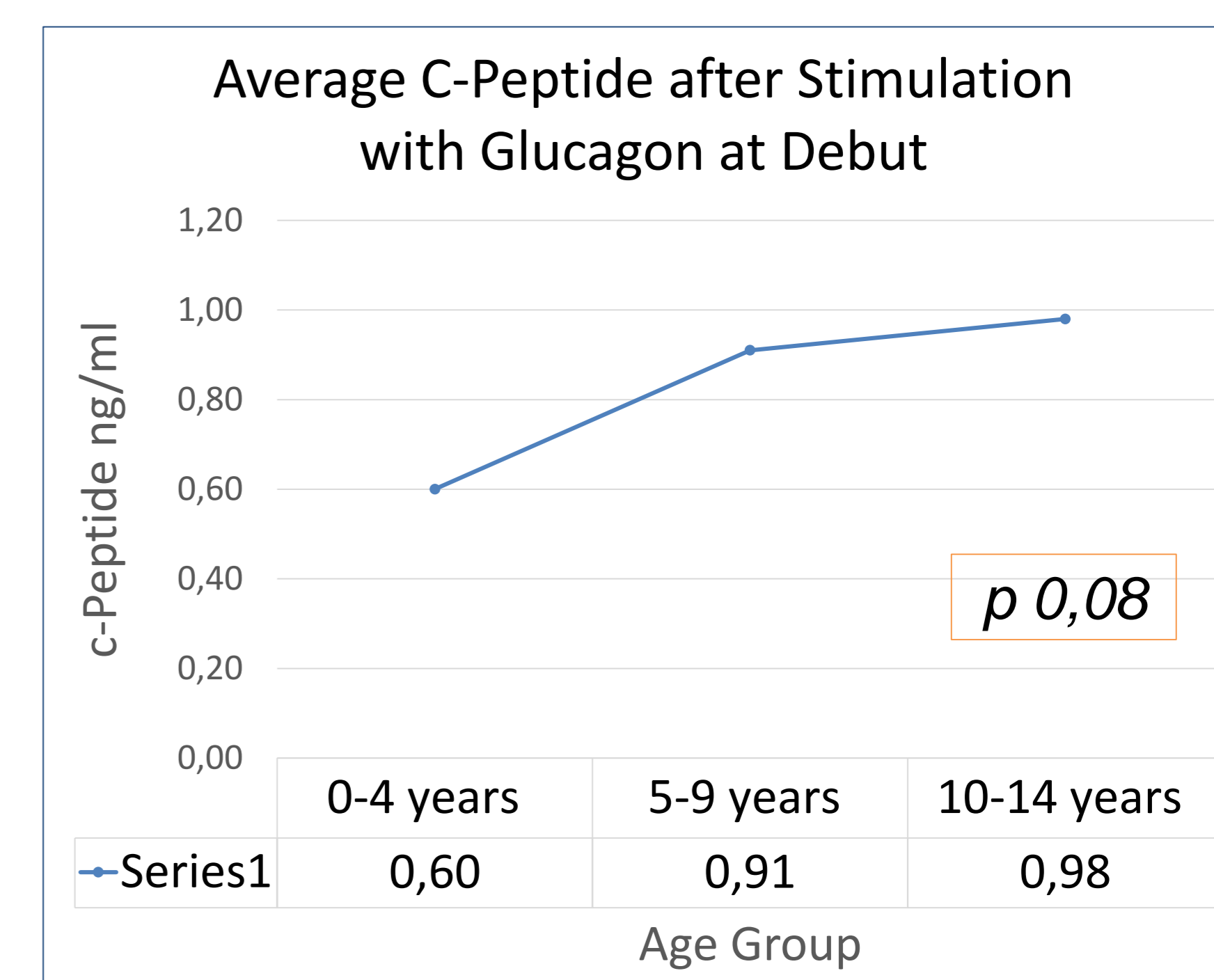
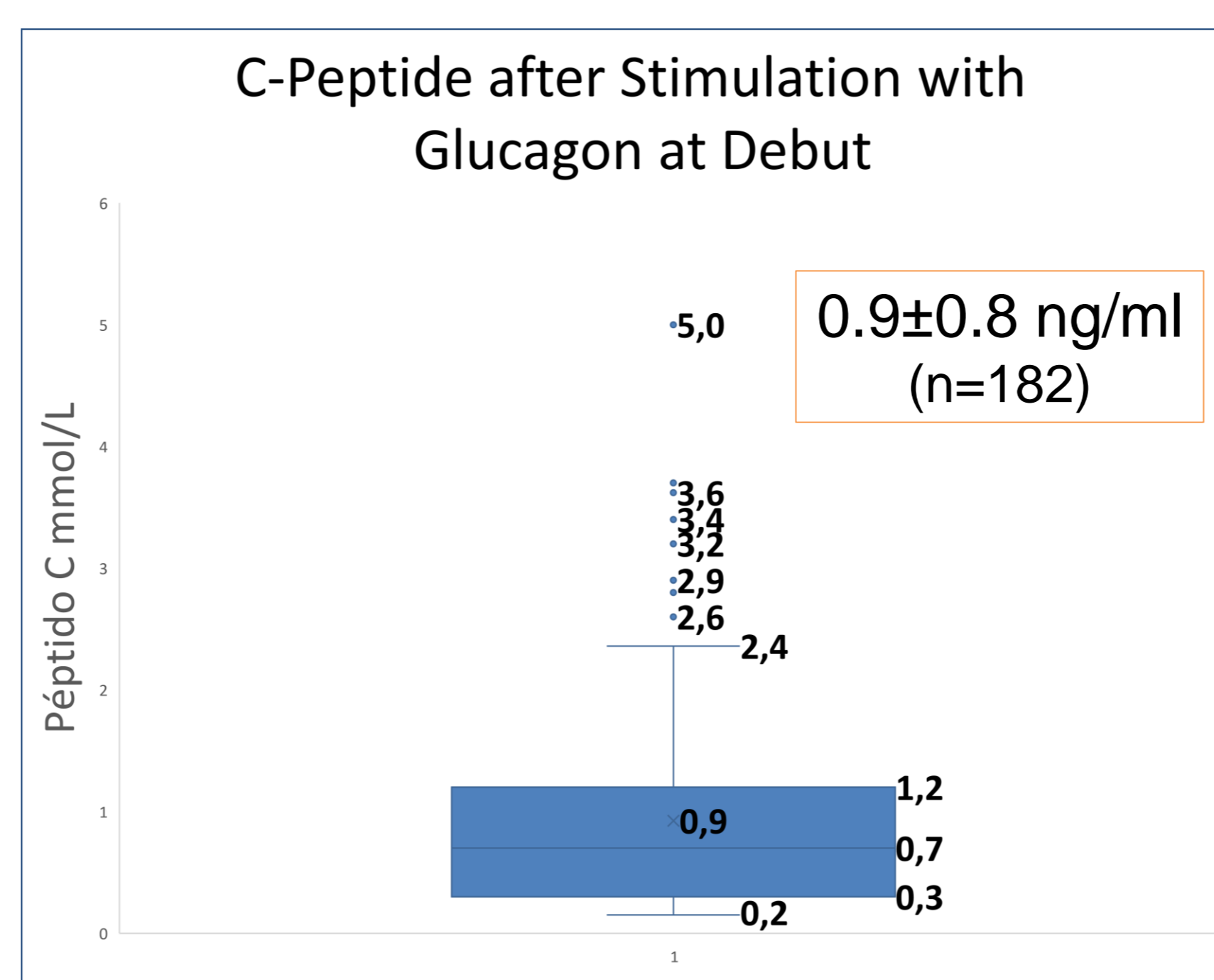
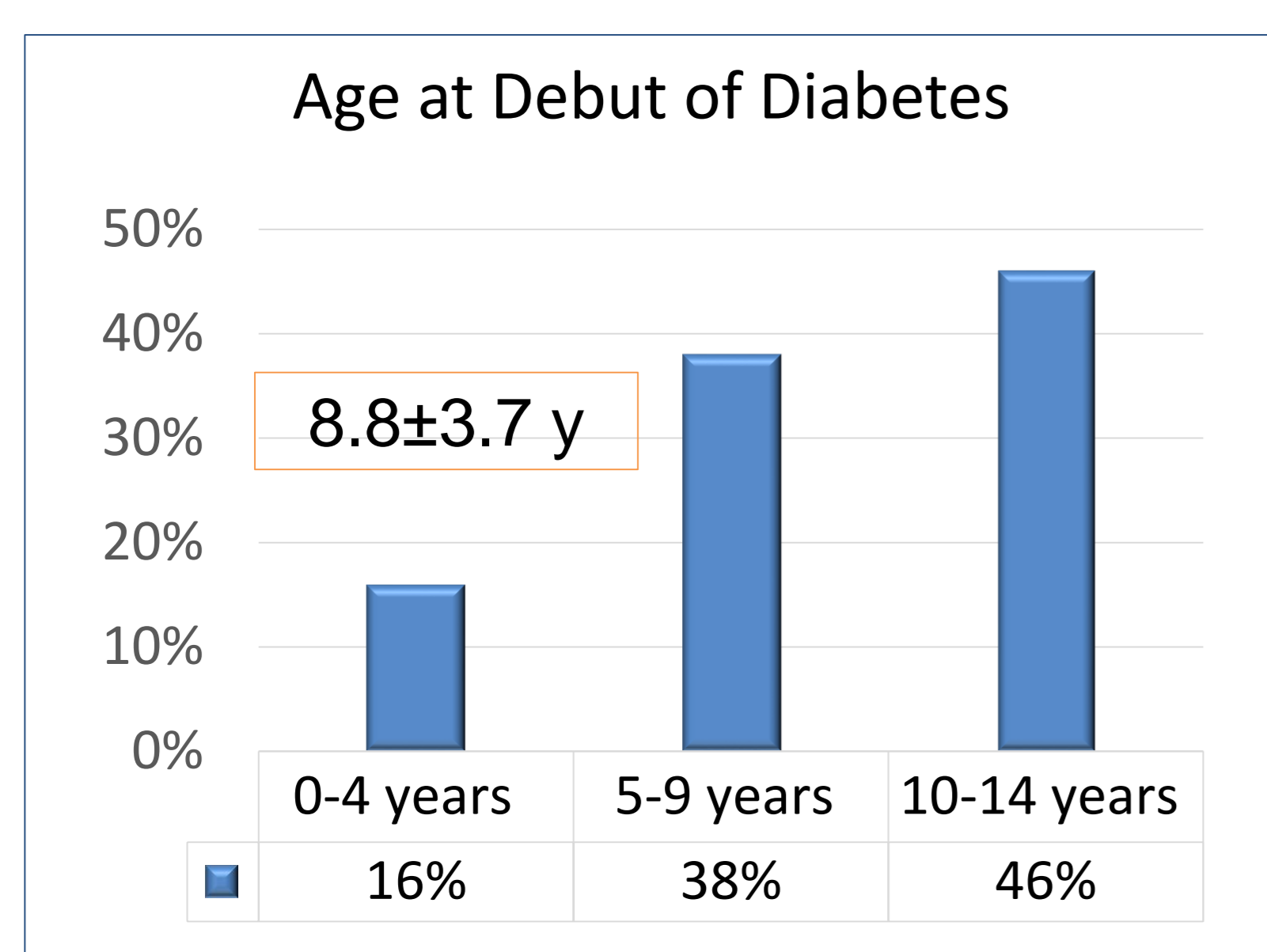
# PANCREATIC RESERVE AND METABOLIC CONTROL OF TYPE 1 DIABETES IN A COHORT OF SPANISH CHILDREN AND ADOLESCENT

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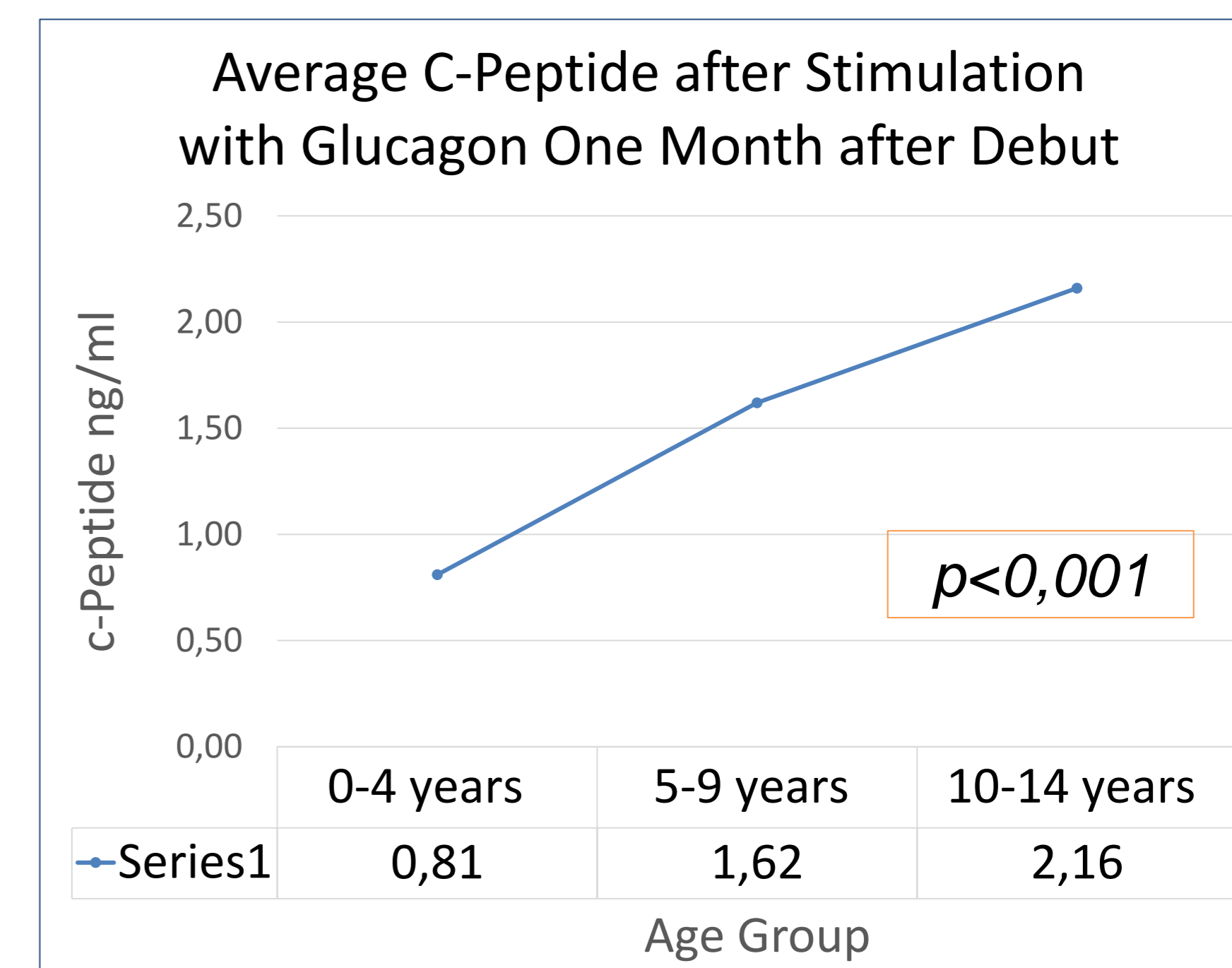
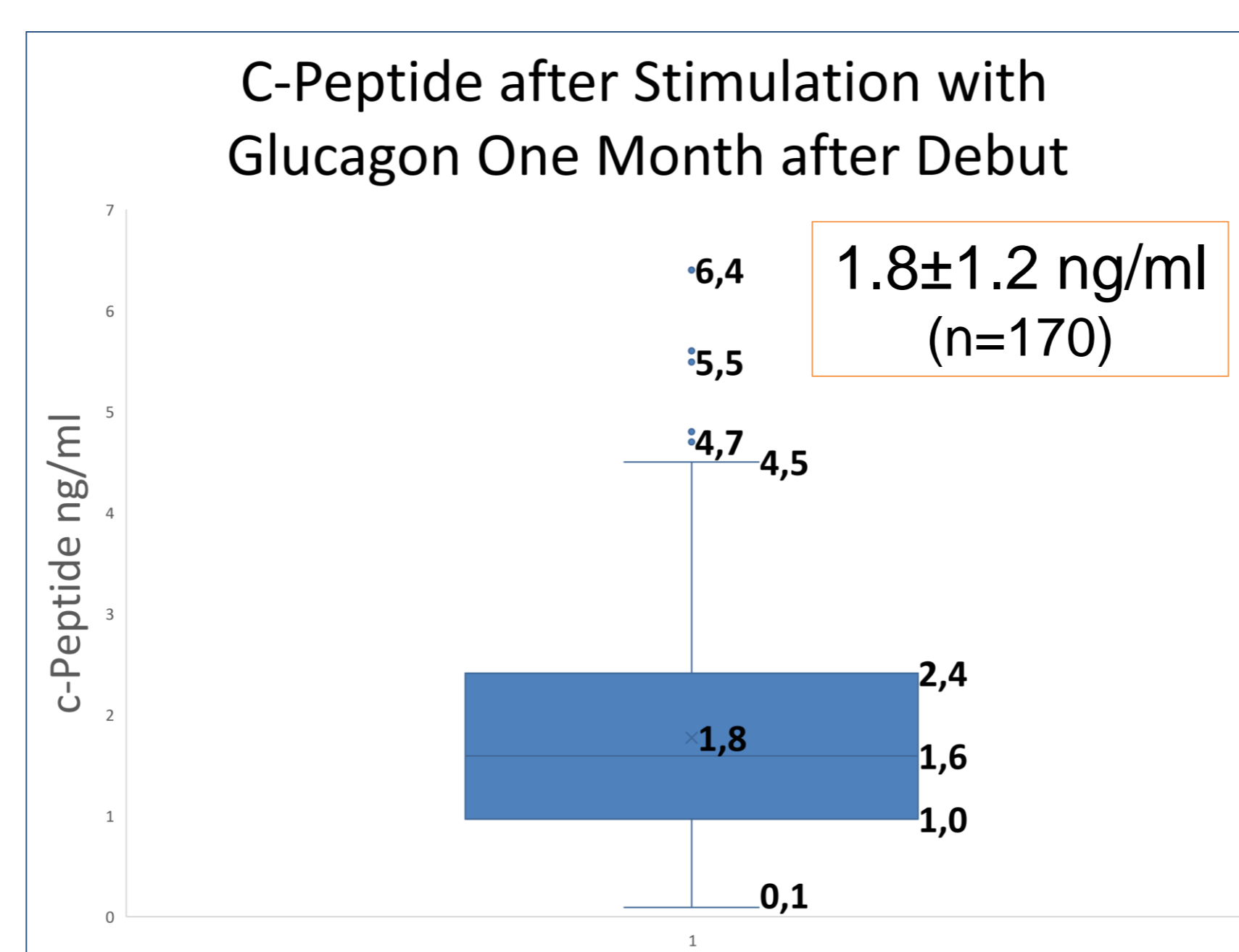
**Objective:** To evaluate the **pancreatic reserve** and **metabolic control** in our patient diagnosed of **type 1 diabetes** over the last **twenty years**.

**Method:** Retrospective cohort study of all patients <15 years, diagnosed in our community between 01/01/1995 and 31/12/2014. **Variables:** gender, age at diabetes debut, age at study, c-peptide after stimulation with glucagon at debut and one month after, HbA1c at debut, one month, one year, two years, five and ten years of debut. Comparison between groups.

**Results:** 207 patients: 51% female.



- Age at debut of diabetes 8.8 ± 3.7 years
- Age at study moment 18.4 ± 7.3 years
- Evolution of diabetes 9.4 ± 6.1 years



Age at Debut of Diabetes	Average HbA1c Debut	Average HbA1c 1 month	Average HbA1c 1 year	Average HbA1c 2 years	Average HbA1c 5 years	Average HbA1c 10 years
0-4 years	10.0 ± 2,4 (n=31)	7,9 ± 1,0 (n=29)	7,2 ± 0,75 (n=33)	7,2 ± 0,6 (n=32)	7,3 ± 0,5 (n=23)	7,3 ± 0,6 (n=8)
5-9 years	11,3 ± 2,2 (n=76)	8,5 ± 1,5 (n=69)	7,0 ± 0,8 (n=77)	7,2 ± 0,7 (n=69)	7,3 ± 0,8 (n=54)	7,6 ± 0,8 (n=23)
10-14 years	12.0 ± 2,2 (n=85)	8,9 ± 1,6 (n=76)	7,0 ± 1,0 (n=85)	7,4 ± 1,2 (n=81)	7,7 ± 1,0 (n=43)	8,1 ± 0,7 (n=3)
Total	11,5 ± 2,3 (n=192)	8,5 ± 1,5 (n=174)	7,0 ± 0,9 (n=195)	7,3 ± 1,0 (n=182)	7,5 ± 0,8 (n=120)	7,6 ± 0,8 (n=34)
Statistical Significance	p < 0,001	p = 0,008	p = 0,45	p = 0,20	p = 0,043	p = 0,34

**Conclusion:** The **older** children have **higher HbA1c** and **lower c-peptide** at debut of diabetes type 1. The children of our community have a quite **good metabolic control**, with average **HbA1c** around **7.5%** along the last twenty years. At **five years** of diabetes the **HbA1c** is **higher** in children that had **10-14 years** at debut moment. This suggests that adolescents have a lifestyle more established and difficult to change long term.

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