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Background and Objctive

Pituitary adenomas (PAs) in the elderly, defined as people older than 65 years, represent less than 10% of all PAs. Because of increasing life expectancy and improving health care, diagnosis PAs in this age group is increasing with time. Age-related changes and associated diseases may significantly modify the clinical presentation in these patients, delaying the diagnosis of PAs.

OBJETIVE: To analyse the clinical features of PAs in elderly patients in a study population from Castilla - La Mancha (Spain).

Design and Methods

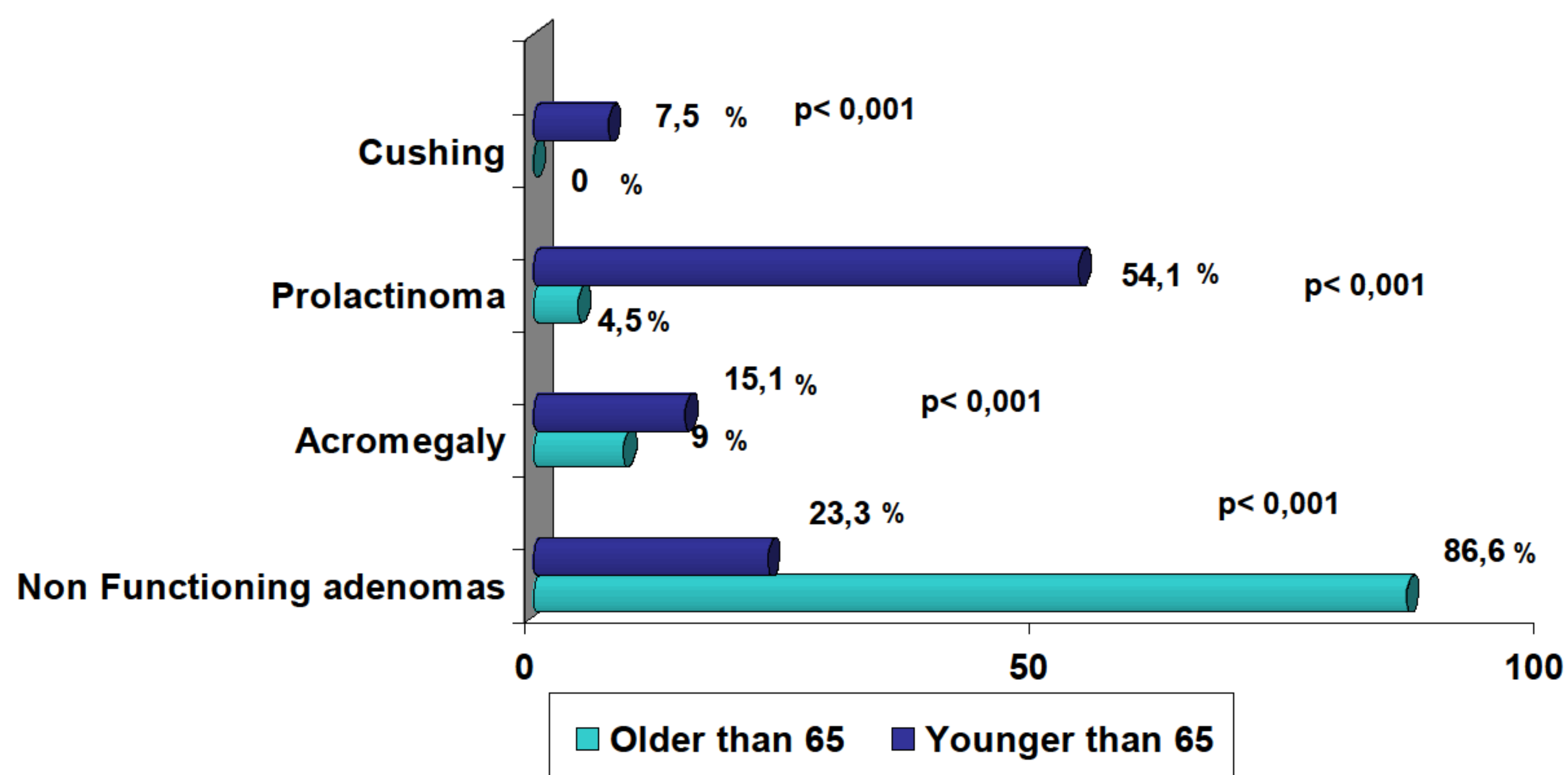
Retrospective observational study. The study included 346 patients with a presumptive diagnosis of pituitary adenoma between 2000 and 2012. Review of medical records of elderly patients with PAs was carried out.

Results

TABLE 1
Baseline Characteristics of patients with pituitary adenomas

Age group	≥ 65 years	≤ 65 years	P value
n	67	279	
Female/male gender (%)	42/25 (62,7/37,3)	193/86 (69,2/30,8)	n.s.
Adenoma size (mm) Mean SD	23,9 12	15,2±12,4	p < 0,001
Macroadenoma n (%)	59 (88,1)	125 (44,8)	p < 0,001

Figure 1. Age differences in type of Pituitary Adenomas



- 67 patients older than 65 years were studied (19.4% of whole PAs). 42 (62,7%) were women and 25 (37,3%) were men. Mean age was 73 years (range 65-87).
- At presentation, visual impairment, headache and deficiency of ≥ 1 pituitary axes were detected respectively in 43.3%, 47.6% and 50.8% of the patients with available data. There were statistically significant differences in visual impairment (43.3% vs 16.3%, p < 0,001), deficiency of ≥ 1 pituitary axes (50,8% vs 30,5%, p < 0,001), incidental diagnosis (47.8% vs 14.9%, p < 0,001) or pituitary apoplexy (10,4% vs 1%, p < 0,001) between elderly and younger patients at presentation. 59 (88,1%) out of 67 patients had macroadenomas whereas 8 (11,9%) had microadenomas. Mean size of PAs in elderly patients was significantly greater than non elderly patients (23,9± 12 mm vs 15,2±12,4 mm, p < 0,001). 58 (86.8%) were non-functioning pituitary adenomas, 3 (4.5%) prolactinomas, and 6 (8.9%) GH-secreting adenoma. There was none ACTH- secreting adenoma.
- Continuous data are presented as means and standard deviations or medians and ranges. Proportions were compared using the Fisher's exact test or chi-square test, and continuous variables were compared using the Student's t test or Mann-Whitney U-test, as appropriate. Analyses were performed using SPSS software (version 20). A P value ≤ 0.05 was considered statistically significant.
- Basal characteristics of patients older and younger than 65 years are shown in Table 1.
- Age differences in type of pituitary adenomas are shown in Figure 1
- Presenting symptoms of patients older and younger than 65 years are shown in Table 2

TABLE 2
Presenting Symptoms

Age group	≥ 65 years	≤ 65 years	P value
Headache n (%) N = 321	30 (47,6)	97 (37,6)	n.s.
Visual impairment n (%) N = 320	29 (43,3)	45 (16,3)	p < 0,001
Deficiency of ≥ 1 pituitary axes n (%) N = 288	34 (50,8%)	85 (30,5)	p < 0,001
Incidental n (%) N = 343	32 (47,8)	41 (14,9)	p < 0,001
Pituitary Apoplexy n (%) N = 328	7 (10,4)	2 (1)	p < 0,001

Conclusions

- The proportion of elderly patients in our study is higher than other studies.
- Our data show that there are age-related differences in PAs clinical features at diagnosis: Visual impairment, hypopituitarism, incidental diagnosis, pituitary apoplexy and larger size are more frequent features in elderly patients than in their younger counterparts.
- Most of PAs in elderly patients are macroadenomas and clinically non-functioning.

