



PITUITARY APOPLEXY

SURGICAL OR CONSERVATIVE MANAGEMENT

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DUARTE SOUSA¹, OLINDA MARQUES², RUI ALMEIDA³

¹ Escola Ciências da Saúde, Universidade do Minho; ² Department of Endocrinology; ³ Department of Neurosurgery, Hospital de Braga

INTRODUCTION

- Pituitary Apoplexy (PA) is a clinical syndrome defined by a sudden onset of headache, that may present with deterioration of visual acuity, nausea, vomiting, vertigo, ophthalmoplegia, visual fields defects and/or decreased level of consciousness ⁽¹⁾.
- There are no evidence-based standards of optimum care for such patients. The main controversy in management relates to the role of acute surgical intervention.

OBJECTIVES

Main Objective:

- Evaluate differences in outcome between patients with PA undergoing surgical or conservative management.

Secondary Objectives:

- Calculate the prevalence of PA in the population of patients with pituitary adenomas followed in Hospital de Braga (HB);
- Characterize the study population regarding demographic, clinical, laboratory and imaging data;
- Determine whether there are statistically significant differences between the groups of patients that underwent surgery or conservative treatment;

METHODS

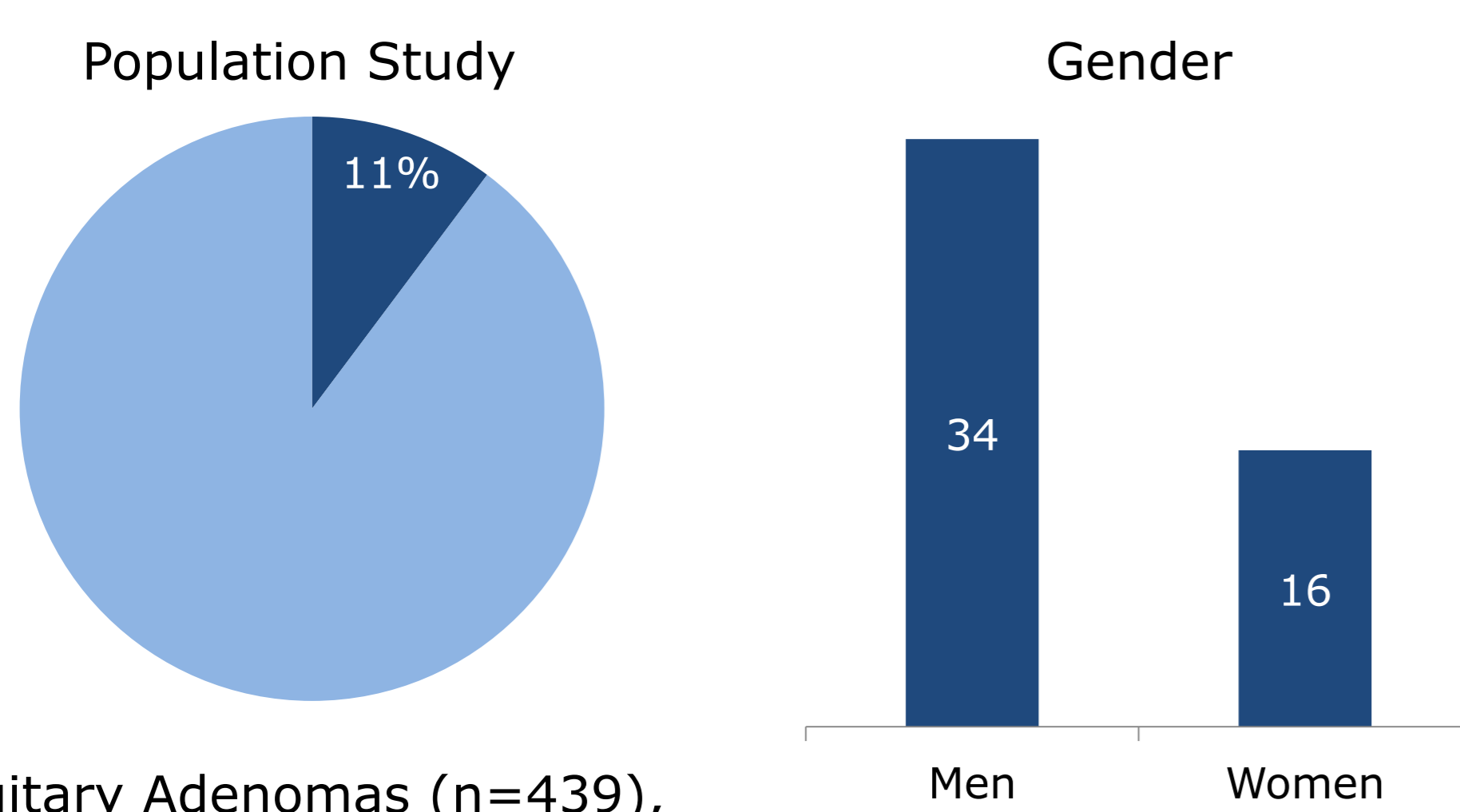
We performed a retrospective analysis of all patients that presented with PA since 1998, and evaluated clinical presentation, management and clinical outcomes.

We defined **Recovery** when evolution occurred with absence of clinical deficits, altered function and need for therapy, and **Partial Recovery** when at least one of the above characteristics were present.

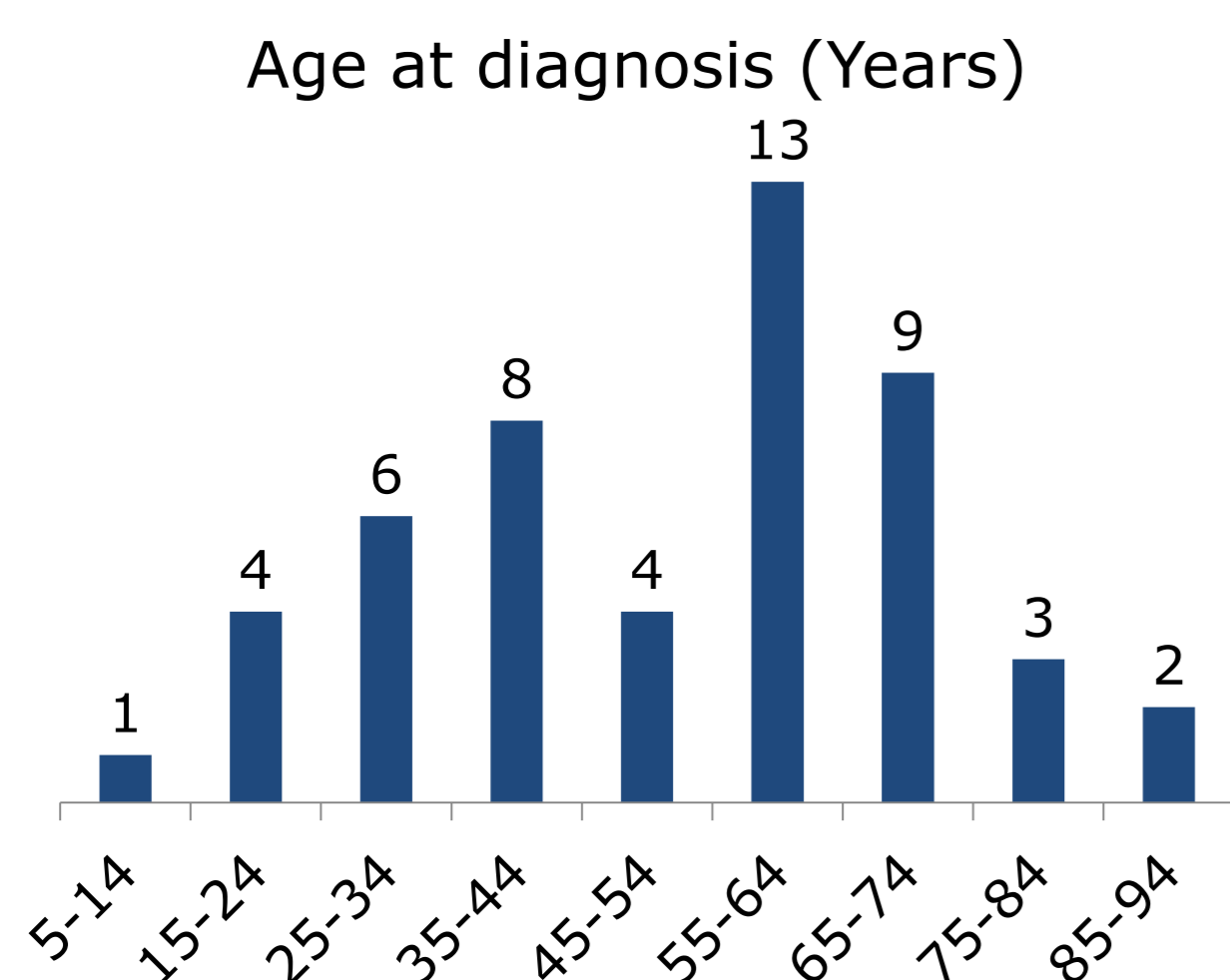
We performed a descriptive analysis. *Student's t-test* and *Pearson's chi-squared test* or *Fisher's exact test* were used for comparing between groups. We admitted a p value <0.05 to be statistically significant

RESULTS

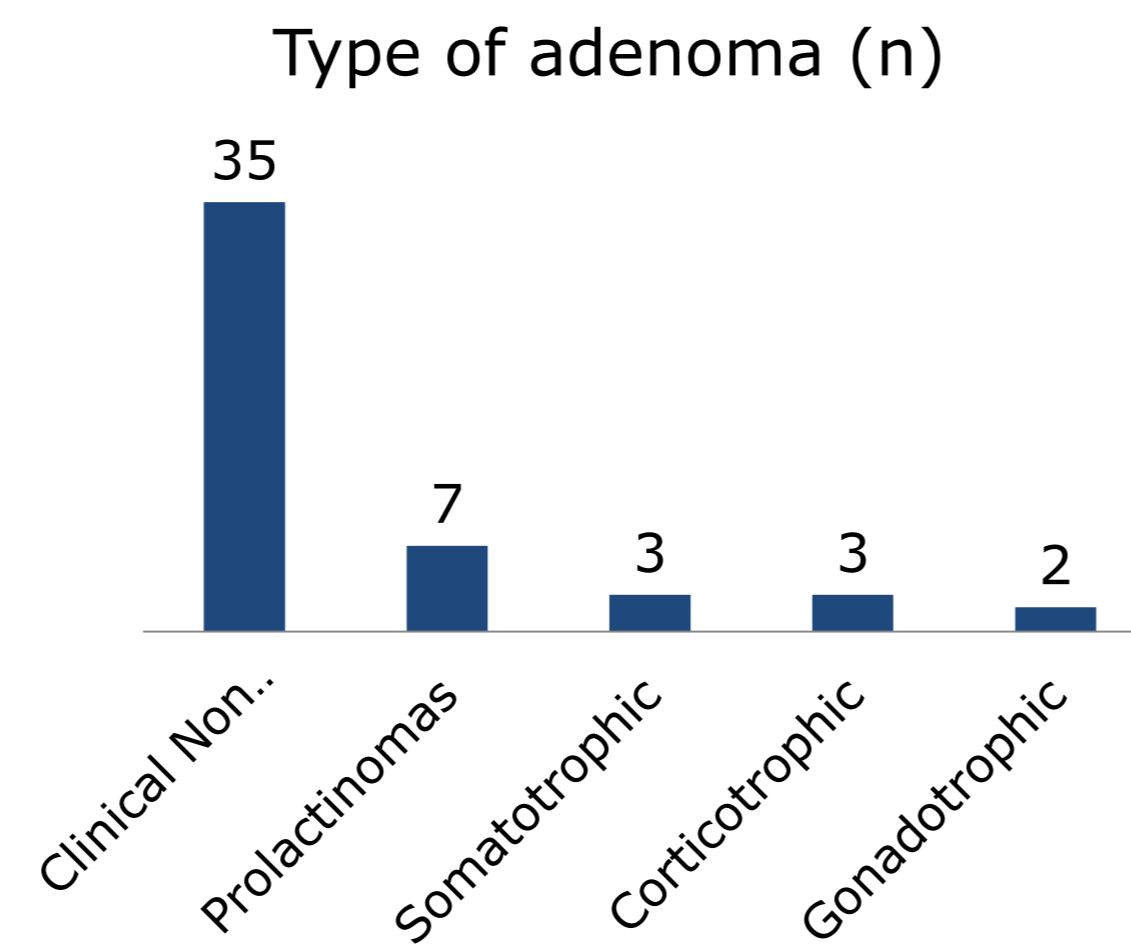
Characterization of the population:



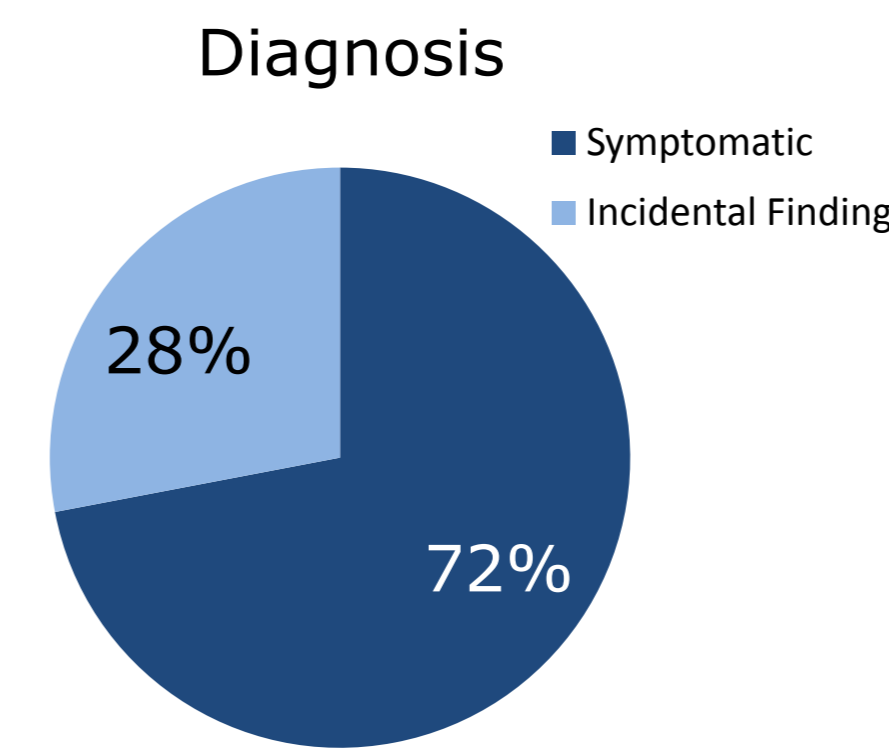
Pituitary Adenomas (n=439), Pituitary Apoplexy (n=50)



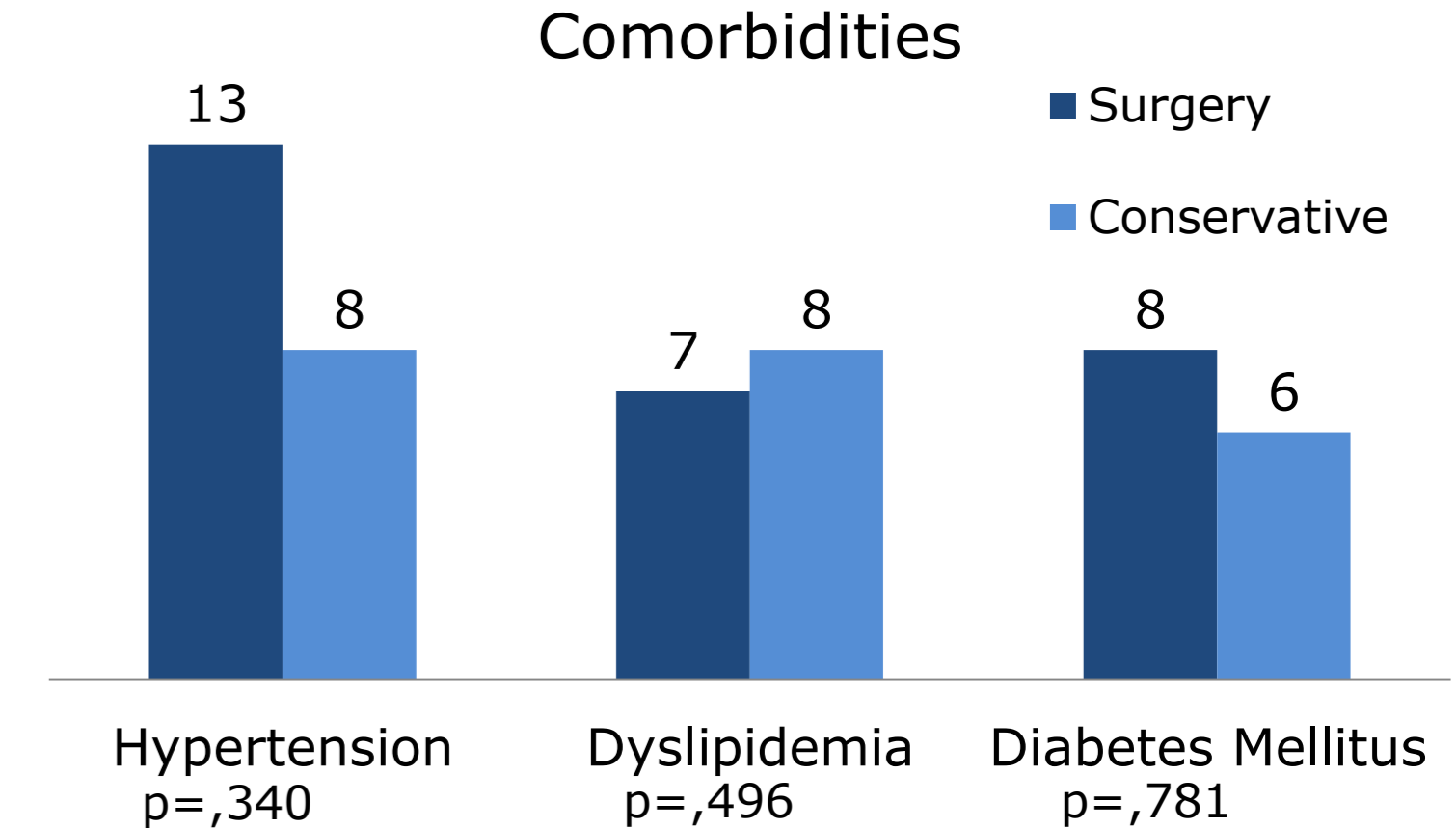
Characterization of the population:



70% (n=35) were clinically non secreting adenomas



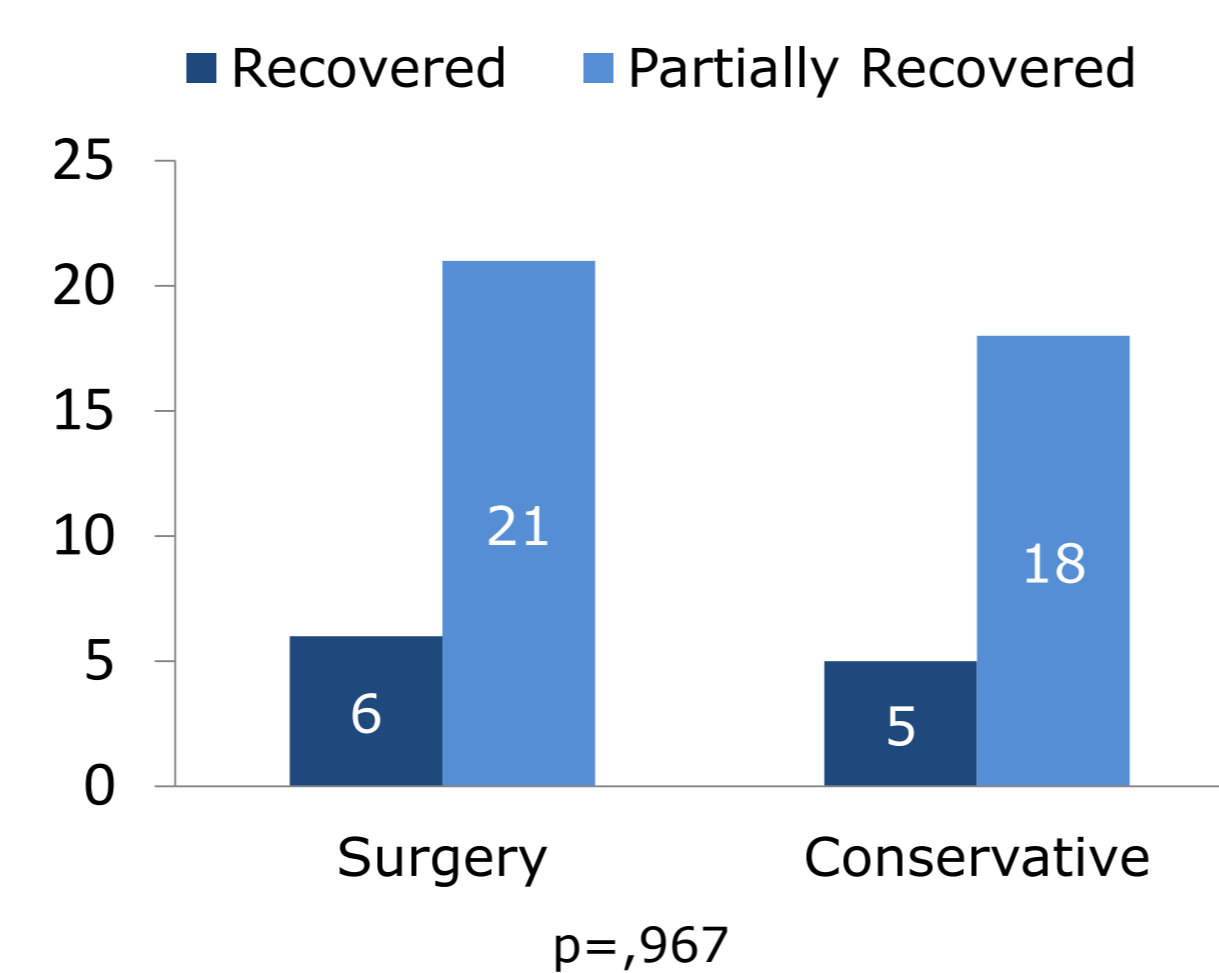
72% (n=36) were diagnosed due to clinical syndrome of compression



No statistically significant differences between groups

Clinical Outcome

Mean follow-up period: 5.35±4.19 years



No statistically significant differences between groups

Visual Outcome

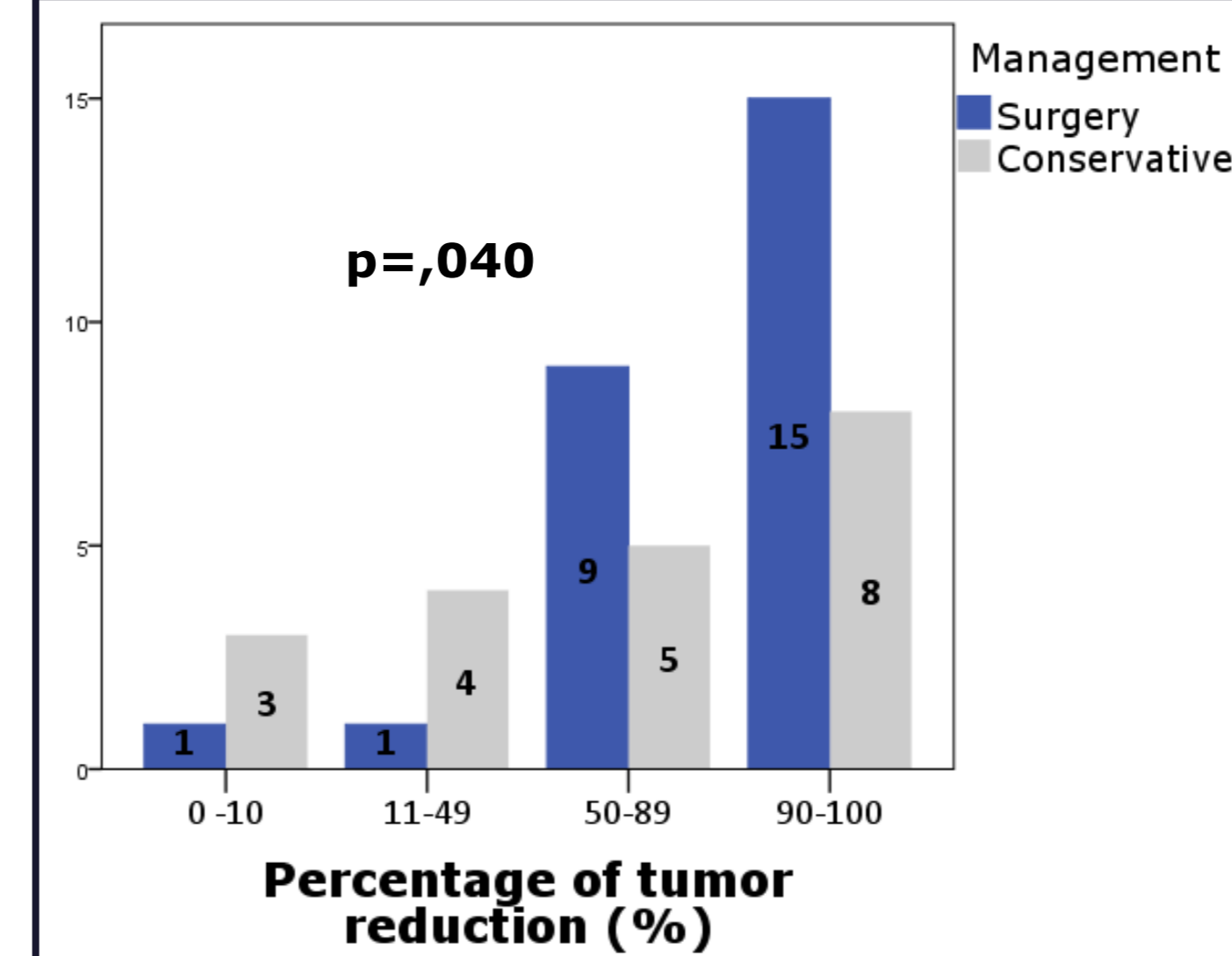
	Right Eye	Left Eye
Visual fields	p=,207	p=,804
III pair lesion	p=,493	p=,460
IV pair lesion	No lesion	p=,1,000
VI pair lesion	No lesion	No lesion

No statistically significant differences between groups

Endocrine Outcome

PRL	p=,689
ACTH	p=,667
GH	p=,493
LH/FSH	p=,200
TSH	p=,777

No statistically significant differences between groups



p=,040

Operated tumors were reduced 19,3% more than those in conservative group
We can verify that this reduction is statistically significant.

SELECTION BIAS (2) ? WE STUDIED OUR SERIES OF PATIENTS TO EVALUATE WHETHER MOST SEVERE CASES WERE MORE OFTEN OPERATED AND VICE-VERSA

Clinical Manifestations

Headaches	p=,1,000
Nauseas	p=,509
Vomiting	p=,665

No statistically significant differences between groups

Visual Manifestations

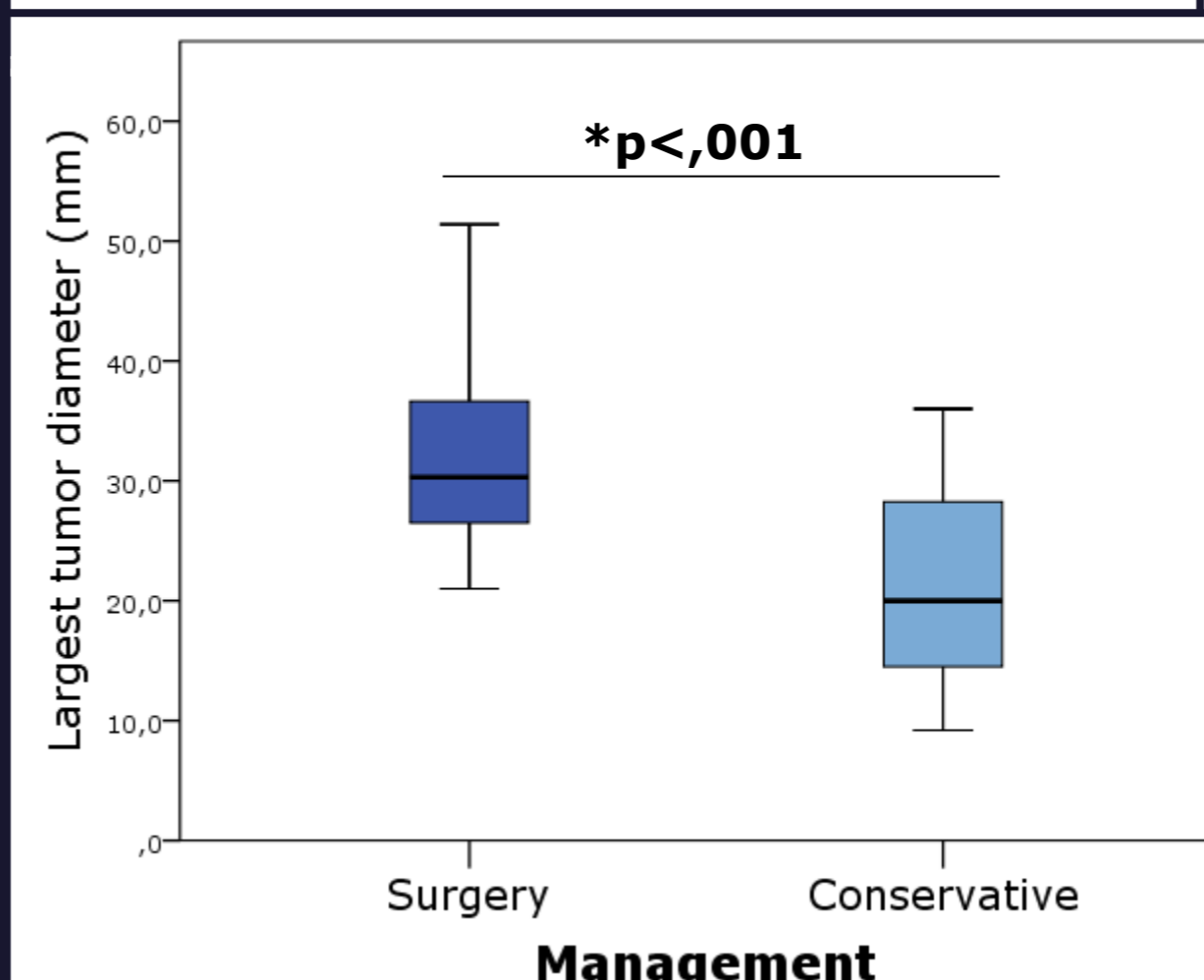
	Right Eye	Left Eye
Visual fields	p=,898	p=,465
III pair lesion	p=,736	p=,261
IV pair lesion	p=,1,000	p=,1,000
VI pair lesion	p=,614	p=,1,000

No statistically significant differences between the groups

Endocrine Manifestations

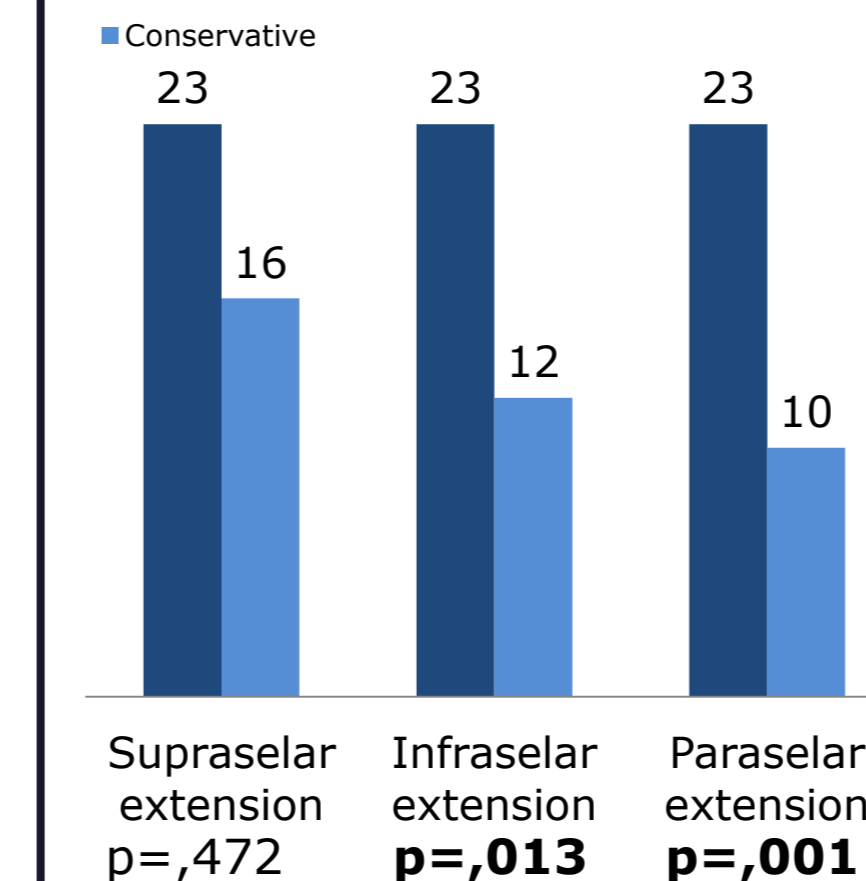
PRL	p=,999
ACTH	p=,476
GH	p=,050
LH/FSH	p=,469
TSH	p=,585

No statistically significant differences between the groups

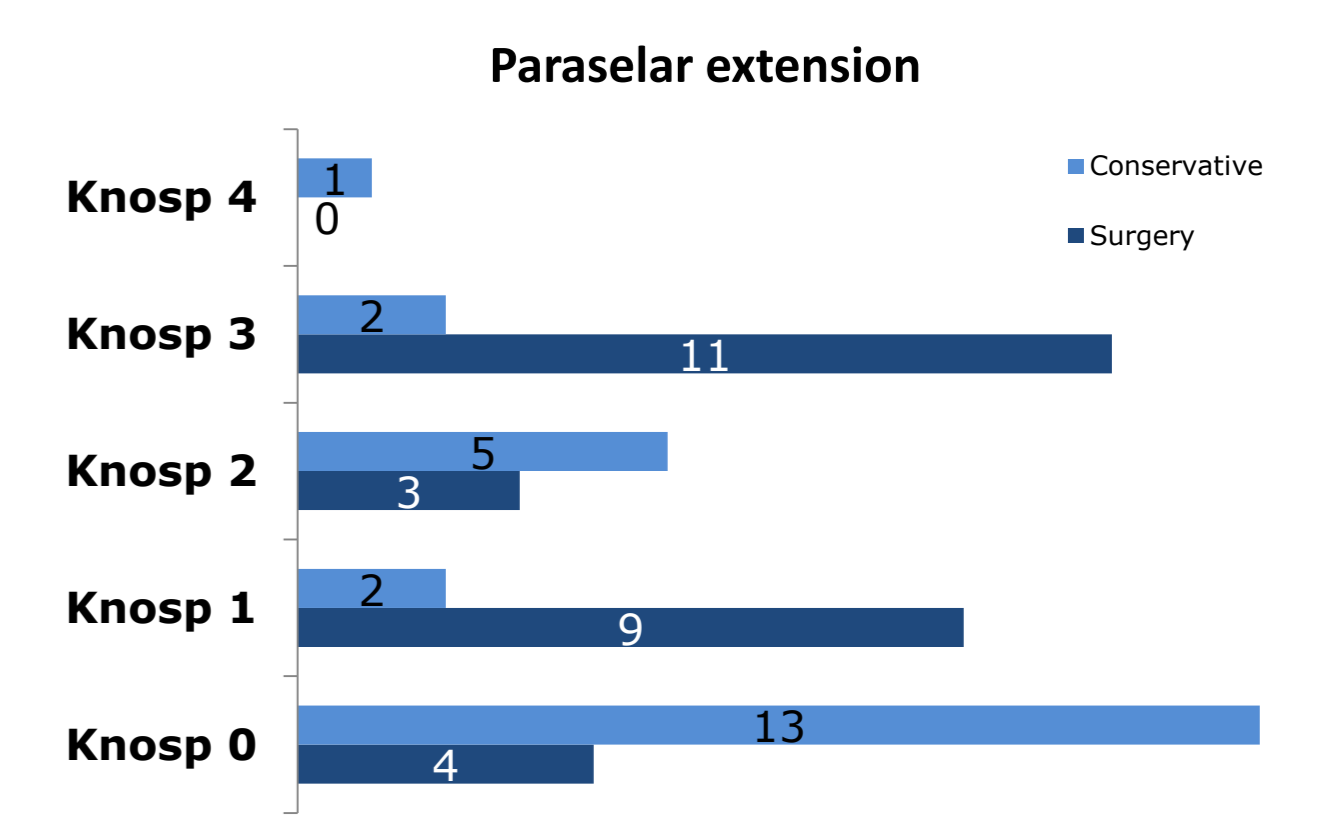


Operated tumors are 11,67 mm bigger than those followed in conservative treatment

Extension to adjacent structures



p=,472; p=,013; p=,001



CONCLUSION

In our population we couldn't find significant differences between the two groups, except for the tumor volume, Knosp classification and tumor reduction. We concluded that conservative management should be considered, without it presenting an increased risk for the patients, regardless of clinical presentation, visual deficits, or endocrinological deficits during admission. However, we recommend that patients presenting with tendentially larger tumor diameter or higher Knosp should be evaluated on a case-by-case basis in order to determine the best acute management.

BIBLIOGRAPHY

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