

## BACKGROUND

Prolactin(PRL) -secreting adenomas are about 40% of all pituitary adenomas. Their clinical symptoms are mainly related to development of secondary hypogonadism and/or tumour mass effects. Dopamine agonists (DA) are first-line drugs for prolactinoma patients due to their effectiveness in normalizing PRL levels and shrinking tumour mass. Surgery is an option for DA failure or tumour mass effects.

## OBJECTIVE

To assess clinical characteristics and treatment outcomes of patients with prolactinomas.

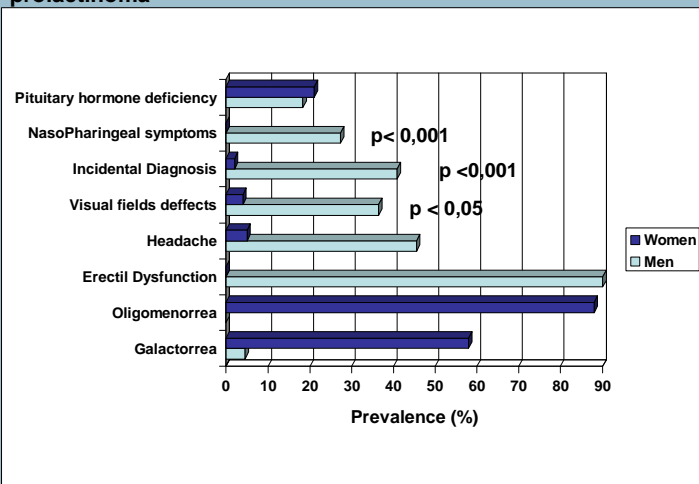
## PATIENTS AND METHODS

- Retrospective review of the clinical records of 72 patients (22 men/50 women) with prolactinoma diagnosed from 1984 to 2012 and followed up in our outpatient clinic. Demographic, clinical, hormonal and radiological characteristics were collected
- Clinical data are expressed as mean (standard deviation) or as percentage.
- Comparison of categorical variables was performed using the chi-square test and Fisher test. Paired t-test was used for comparison of continuous variables. (SPSS v 15).

## RESULTS

The mean follow-up time was 103,82±80 months (range 7-338).

**Figure 1.- Prevalence of baseline symptoms in our patients with prolactinoma**



**Table 1.- Baseline Characteristics in our patients with prolactinoma**

	Total (n=72)	Men (n=22)	Women (n=50)
Mean age at diagnosis (years (mean±S.D))	32,2±13,3	40±16**	28,7±10,3
Macroadenomas n(%)	33(45,8)	20(90,1)*	13(26)
Microadenomas n(%)	39(54,2)	2(9,9)	37(74)
Maximal tumour diameter at diagnosis (mm (mean±S.D.))	13,3±12,8	26±16*	7,5±4,4
Mean Prolactin at diagnosis (ng/ml)	1216,7	3467,5*	206,1

gender difference \* p<0,001; \*\* p<0.05

**Table 2.- Type and outcome of treatment**

	Total	Men	Women
DA agonists alone n(%)	67 (90,2%)	18 (81,8%)	49 (98%)
Surgery +DA agonist n(%)	5 (9,8%)	4 (18,1%)***	1 (2%)
Normal serum PRL levels	62 (86,1%)	19 (86,4%)	43 (86%)
Shrinkage of tumor*	35 (48,6%)	6 (27,2%)	29 (58%)**

\*Non visible tumor or empty sella at the end of follow-up. Gender difference: \*\*\*p<0,001; \*\*p<0.05

- At the end of follow-up, complete or partial remission (no visible or reduced tumour in CT or MRI and normal PRL levels on/off current DA medication) were achieved in 77,7% of patients.
- Prevalence of adverse drug effects were lower in cabergoline treated subjects (p<0,05).

**Table 3.- Comparison of clinical factors potentially predictive of remission following DA agonist withdrawal**

	Relapse(n=17)	Remission(n=9)	p
<b>Gender (n)</b>			
Male	2	0	n.s.
Female	15	9	
<b>Age (years(mean±S.D.))</b>	29,24±9,6	31±11,3	n.s.
<b>Type of adenoma (n)</b>			p<0,05
Microadenoma	11	9	
Macroadenoma	6	0	
<b>Type of DA agonist (n)</b>			n.s.
Cabergoline	6	7	
Bromocriptine	10	3	

Seventeen out of 26 patients (65,4%) recurred after DA withdrawal.

## CONCLUSIONS

In our study, prolactinomas showed different and more aggressive clinical characteristics in men. DA therapy normalized prolactin and reduced tumour size, alone or associated with surgery, in the majority of patients. Greater initial tumour size was a predictive factor for relapse.