

# STUDY OF THE PREVALENCE AND RELATED FACTORS IN THE WITHDRAWAL OF MEDICAL TREATMENT MACROPROLACTINOMAS

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## INTRODUCTION AND OBJECTIVES

The prolactinoma is the most common pituitary functioning tumor. There are few long-term studies on the optimal duration of treatment with dopamine agonists prolactinoma to ensure healing without recurrence after stopping the medication and do not provide a consensus on it or on withdrawal criteria treatment.

Our objective is to describe the prevalence of withdrawal of treatment macroprolactinomas and evaluate criteria prolactinoma cure medical treatment and analyzing the possible factors involved

## METHODS

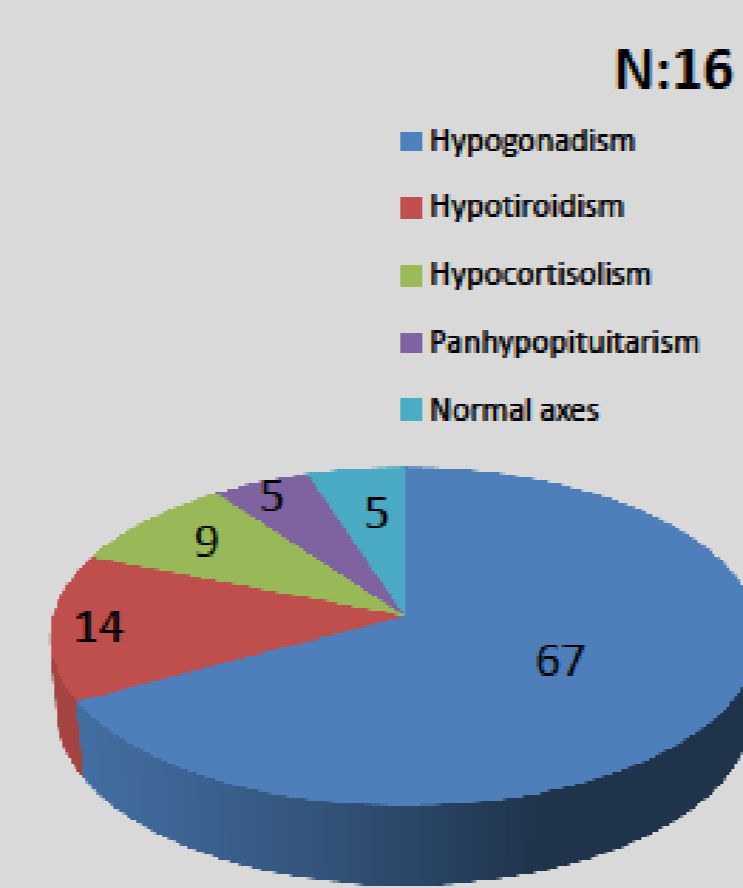
Retrospective study of 77 patients diagnosed and treated for prolactinoma in the Service Endocrinology of University Hospital of Asturias, from 1982-2012. Only 56 patients were treated exclusively with dopamine agonists and the rest were excluded. Of these 40 patients continue with treatment and 16 patients were withdrawn from treatment (8 men and 8 women) after verifying the suppression of prolactin (PRL) levels and the disappearance of the pituitary mass in (28.6 % removal treatment and 44.6 % could meet criteria)

The criteria on patients selection were: size > 1 cm; without evidence of endocrine mixed tumors, no prior surgery or radiotherapy, absence of primary hypothyroidism untreated and absence of drugs consumption increasing PRL and withdrawal of treatment with dopamine agonists. The withdrawal of treatment is usually made after checking the following criteria: 1) normal prolactin levels after reducing doses of DA. 2) Large reduction of tumor mass image: invisibility of it or only minimal residual tumor remains. 3) Usually, after 4-5 years of treatment and 10 years of follow up in our Department of Endocrinology.

## RESULTS

### PITUITARY DYSFUNCTION

DEFICIT AXES	N:16
HYPOGONADISM ISOLATED	14
HYPOTIROIDISM AND HYPOGONADISM	3
HYPOCORTISOLISM AND HYPOGONADISM	2
PANHYPOPITUITARISM	1
PRESERVED AXES	1



### INITIAL RADIOLOGIC STUDY: CHARACTERISTICS



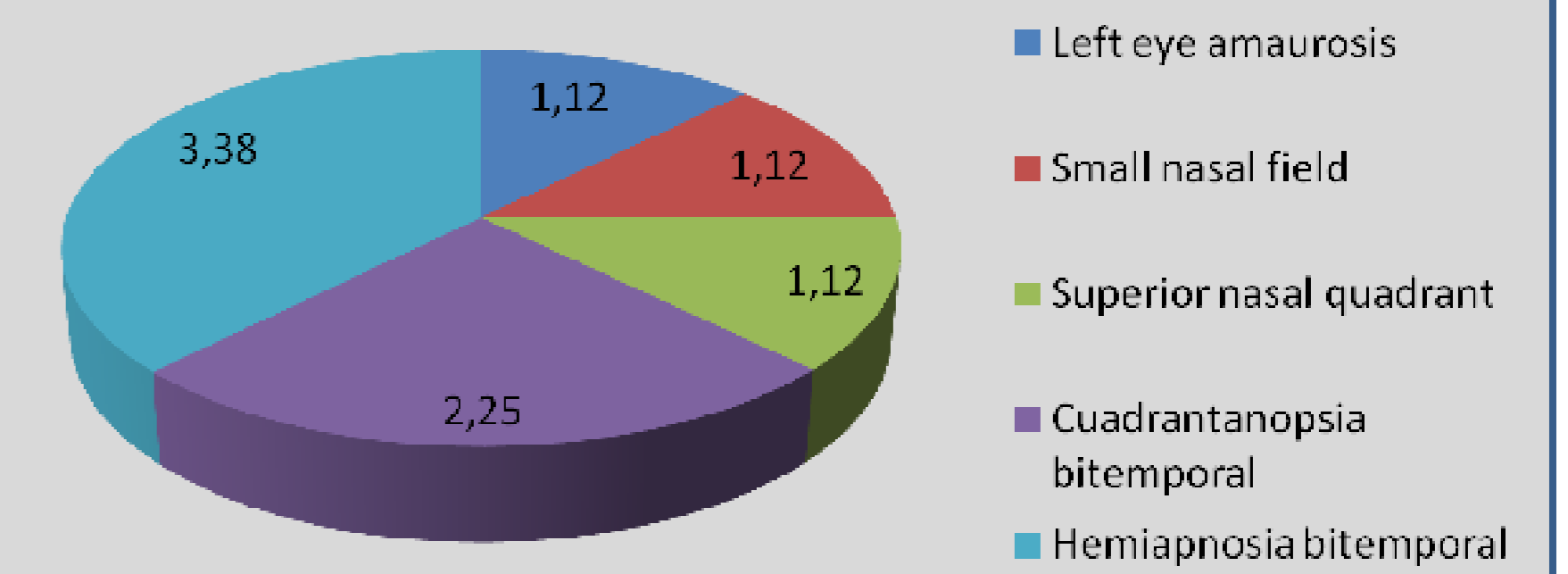
SCAN 75% AND RESONANCE 25%

INITIAL SIZE  
 > Media Axis Transversal +1.11 2.36 cm  
 > Median 1.95 cm  
 > Range (1.2-4.5)cm

- 4 SUPRASELLAR
- 3 INFRASELLAR
- 3 INFRA Y SUPRASELLAR
- 1 LATERAL
- 3 LATERAL AND INFRASELLAR
- 2 LATERAL AND SUPRASELLAR

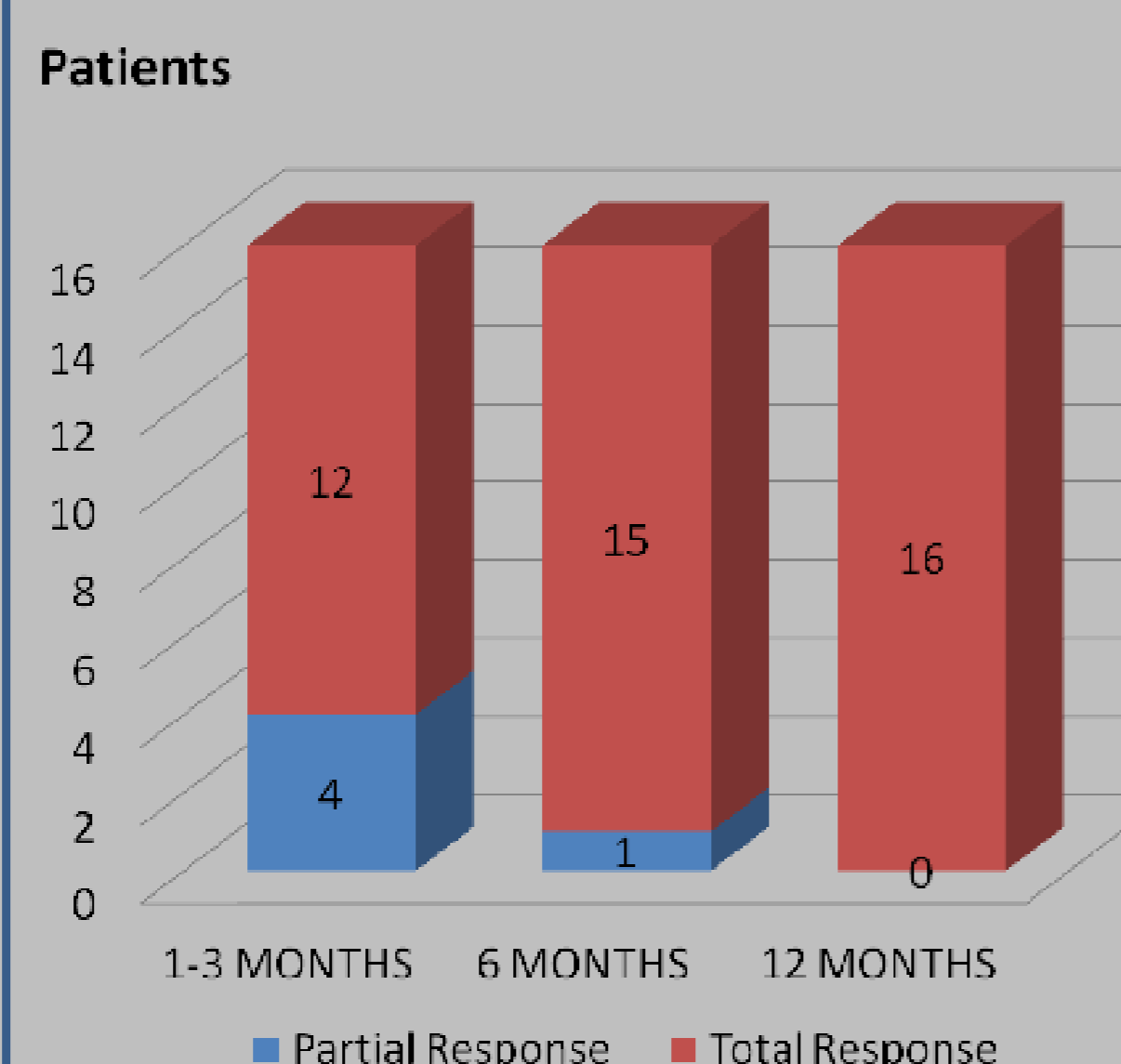
### OPHTHALMOLOGIC STUDY: DIAGNOSTIC CAMPIMETRY

ALTERED CAMPIMETRY N:5



### TREATMENT

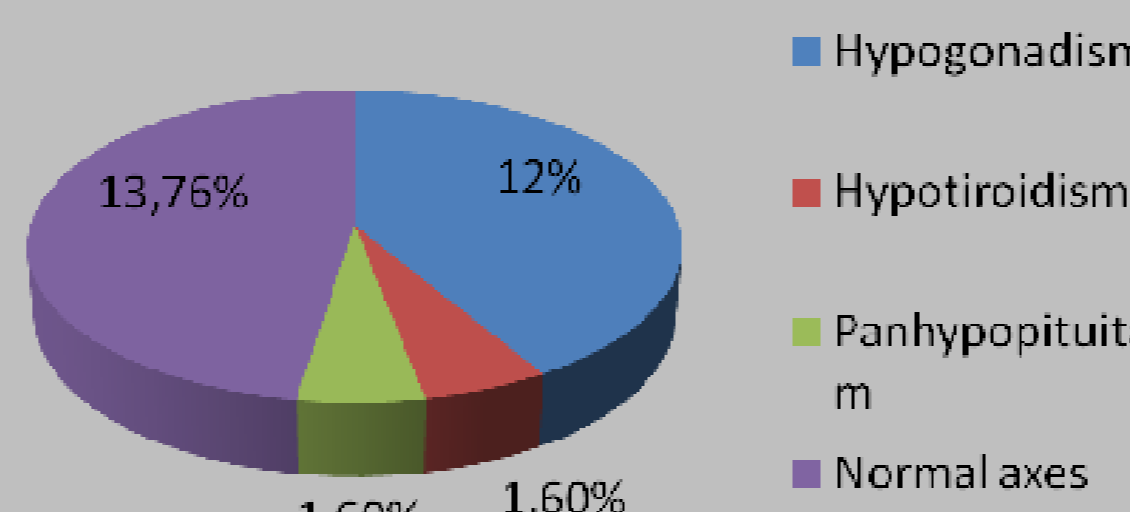
#### FUNCTIONAL RESPONSE



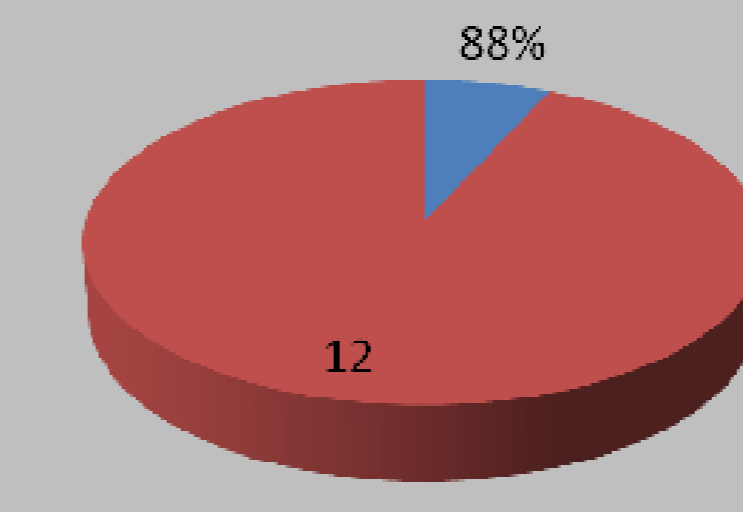
PARTIAL RESPONSE: REVENUE  
 REDUCTION OF PRL 50-90%  
 TOTAL RESPONSE: REDUCTION OF >90%

#### CLINICAL RESPONSE

##### POSTTREATMENT: HORMONAL AXES



##### POSTTREATMENT: CAMPIMETRY



#### FEATURES AT THE TIME OF WITHDRAWAL

BROMOCRIPTINE DOSE OF THE SUSPENSION	1.25	2.5	5	MEDIA ± SD MEDIAN
NUMBER OF PATIENTS	1	8	3	3.02 ± 1.24 MEDIAN 2.5
CABERGOLINE DOSE OF THE SUSPENSION	<0.5MG/ WEEK	1 MG/ WEEK	4MG/ WEEK	MEDIA ± SD MEDIAN
NUMBER OF PATIENTES	2	1	1	0.92 ± 1.71. MEDIAN 0.75
YEARS OF TREATMENT WITH AGONISTS: ✓ MEDIA: 11.01 years ± 7.36 ✓ MEDIAN: 9 years ✓ RANGE: ( 2,26- 26.87)				

#### ESTRUCTURAL RESPONSE

	<25%	25-50%	50-75%	>75%	100%
1º IMAGE:6 MONTHS(2-10)	3 P 18.7%	3 P 18.7%	9 P 56.2%	1 P 6.25%	0 P
2º IMAGE:17 MONTHS(7-24)	1 P 6.2%	0 P	8 P 50%	4 P 25%	3 P 18.7%
3º IMAGE:60 MONTHS (12-140)	0 P	0 P	4 P 25%	5 P 31.25%	7 P 43.75%

#### ANALYTICS: INITIAL PRL

MEDIA	MEDIAN	RANGE
2259	2779	119-15,000
+3918		

#### REINTRODUCTION OF TREATMENT: CHARACTERISTICS.

- > PERCENTAGE OF REINTRODUCTION TREATMENT 50%
- > TIME REINTRODUCTION OF TREATMENT :MEDIA: 24.57 MONTHS RANGE:( 1.03-73.60)
- > TRACKING TIME :MEDIA: 7.5 YEARS ± 6.63 (0.66-19.5) MEDIAN 4.91 YEARS
- NO IMAGE CONTROL REGROWTH

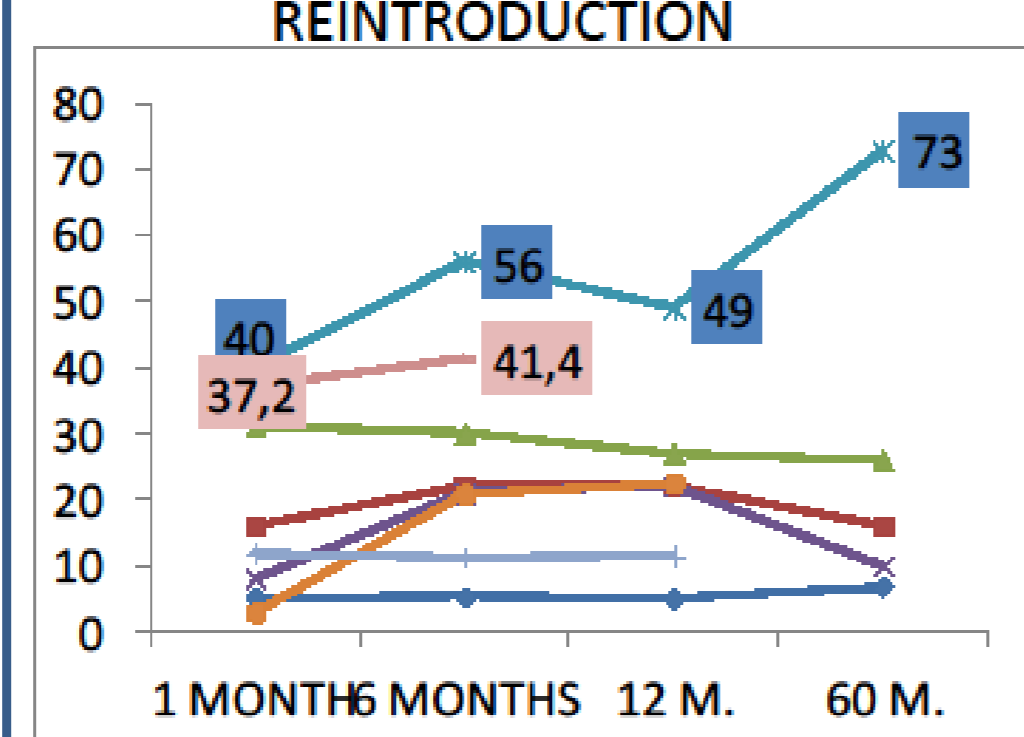
- > HYPERPROLACTINEMIA 100% RANGE: 50.8-1608 MEDIA: 274.81. MEDIAN 73.2



Only two patients had clinical: one impotence and other oligomenorrhoea

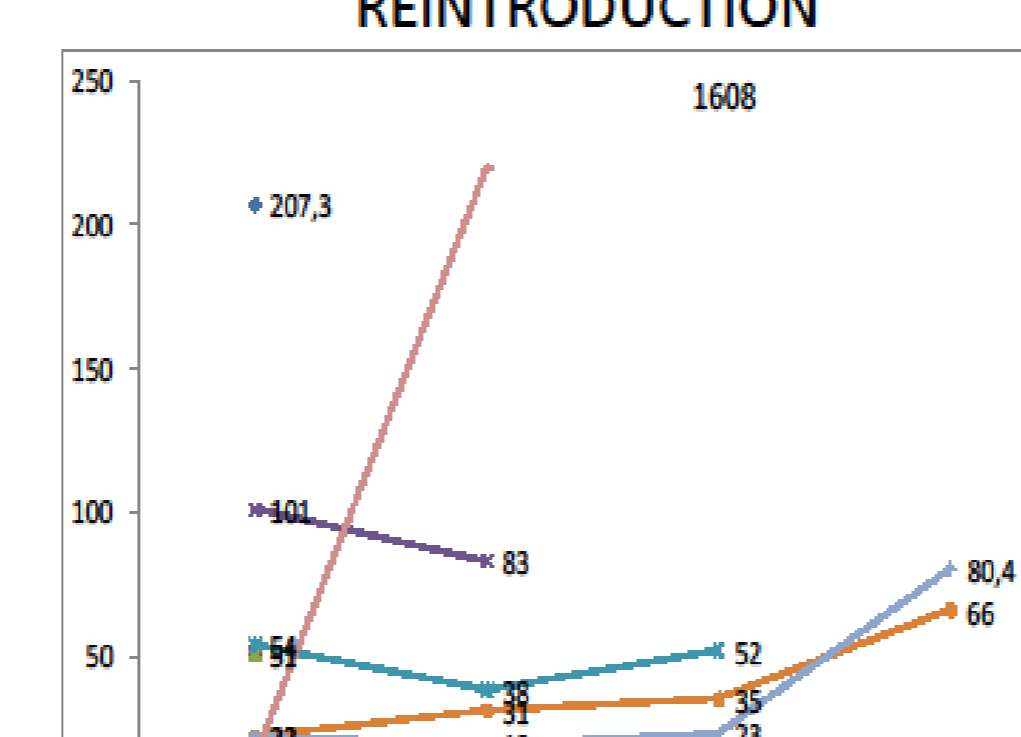
#### COMPARATIVE PROLACTINE LEVELS

##### NO TREATMENT REINTRODUCTION



We note that one of the 8 patients only takes six months and two one years and one was kept without treatment with abnormal numbers of PRL

##### TREATMENT REINTRODUCTION



We note that in 8 patients: the figures of prolactin to treat those variables are introduced

SEX: 50% of both AGE

DOSE OF AGONIST TO THE SUSPENSION.  
 • Reintroduction/no reintroduction median 2,5mg with BC.

PROLACTIN LEVELS AT THE MOMENT OF WITHDRAWAL

THERE ARE NO DIFFERENCES BETWEEN REINTRODUCTION VS NO TREATMENT REINTRODUCTION D

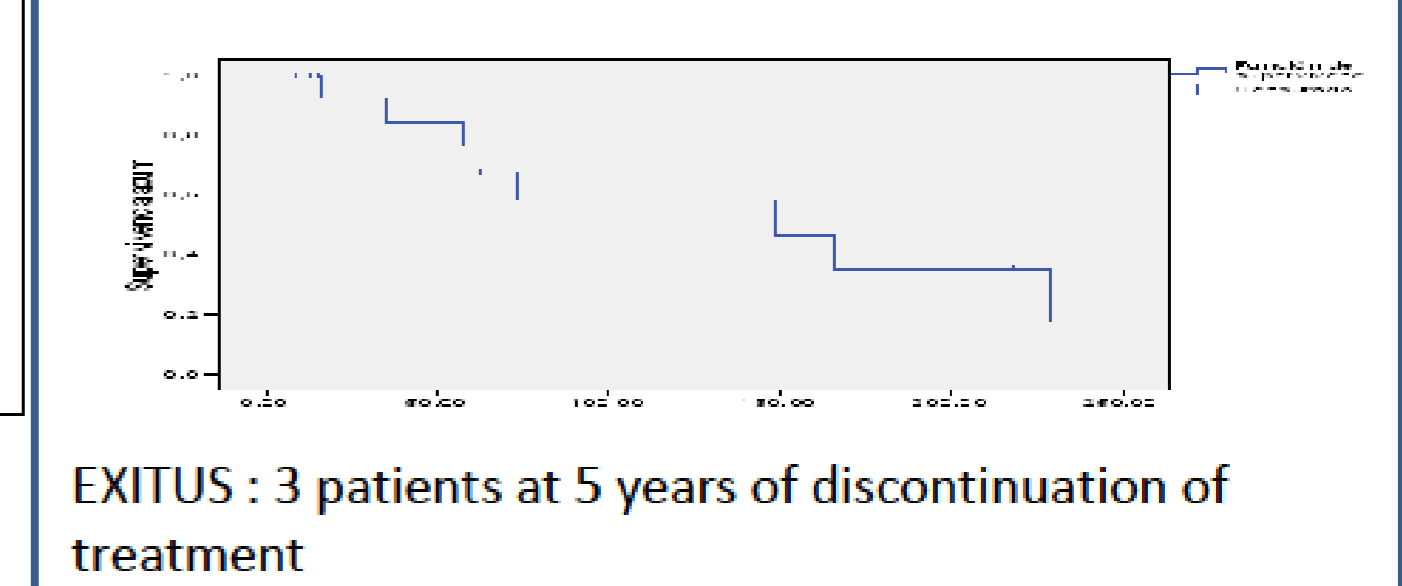
Response of treatment

INITIAL SIZE OF TUMOR:  
 • Reintroduction: median 1,8cm  
 • No Reintroduction: median 2,25cm.

The results show differences :

- Years with treatment : Those who were not reintroduced a median of 10 years compared to 7.69 years he reintroduced.
- PRL normal time: Those who do not reintroduced tto 8.5 years and the other 5.5 years

#### TRACING.



EXITUS : 3 patients at 5 years of discontinuation of treatment

## CONCLUSIONS

- ✓ After the withdrawal of treatment with dopamine agonists ,after an average of 10 years under normal PRL and almost complete tumor shrinkage , the treatment was reintroduced in the 50% of the patients in our serie.
- ✓ Reintroduction treatment happened in all cases because of prolactin elevation
- ✓ No tumor regrowth in any of the control images .
- ✓ We observed no relation with the initial tumor size or PRL levels at the moment of treatment withdrawal or other predictors because of the limited sample size.

